

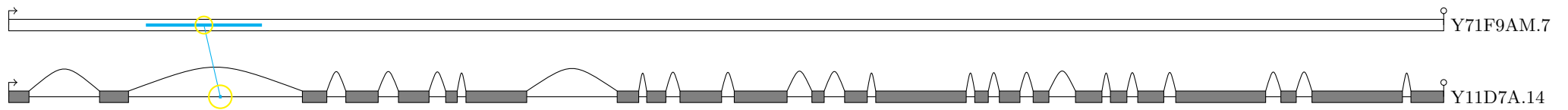
|       |          |  |          |
|-------|----------|--|----------|
| C.Ele | cctgacac | acgg <b>CAGT</b> tt <b>GAGTTGATT</b> cgctcttttcgcaatagagct...84...--ttcccacaattt | tctctagt |
| C.Bri | gccactcc | acgg <b>GCAGT</b> tt <b>GAGTTGAT</b> tcgctctttattgatggagc...88...tcttcccaca--ct  | tcaactgt |
| C.Bre | accccgtc | acgg <b>GCAGT</b> tt <b>GAGTTGAT</b> tcgctcttttaaagtagagc...85...--ttcccacagttt  | taaaatat |
| C.Rem | tgctgtgt | ccgg <b>GCAGT</b> tt <b>GAGTTGAT</b> tcgctcttccccgatagagc...92...--ttcccacatctt  | ttgagatt |
|       |          | *** ***** * *** ***** *  | *        |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |                  |  |          |
|-------|------------------|--|----------|
| C.Ele | ctac <b>AATC</b> | <b>GACTCATTG</b> taagtgttg-aaaaatttgca...973...-cttaatatga---ta  | attttcag |
| C.Bri | ctacc <b>ATC</b> | <b>GACTCATTGT</b> aagtgttgtgtgtgtgaa...1482...---taa-acgaatttt   | attttcag |
| C.Bre | ctacc <b>ATC</b> | <b>GACTCATTGT</b> aagt-caataaaggatggcgt...723...---cca-attctctat | attttcag |
| C.Rem | ctacc <b>ATC</b> | <b>GACTCATTGT</b> aagt-caataagggtgattg...731...ccatca-attacaaag  | ttttt--- |
|       | *** **           | *****  | ***      |

id=59064 gene=M79.1 name=abl-1 segment=chrX\_10612696\_10613709\_-1 type=IN

Figure 1: CS=5.2



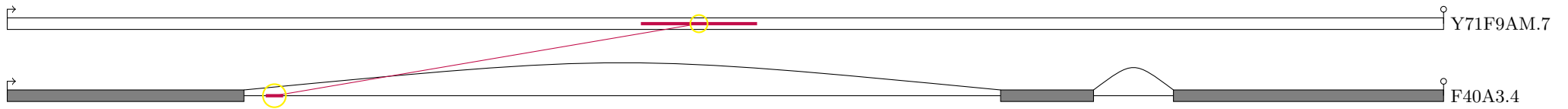
|       |          |            |                              |                                  |              |          |
|-------|----------|------------|------------------------------|----------------------------------|--------------|----------|
| C.Ele | cctgacac | acggc----- | <b>CAGTTTGAGTTGATTCG</b>     | ctcttttcgcaatagagcttt...82...    | ttcccacaattt | tctctagt |
| C.Bre | -----ac  | ccggtca    | <b>CGGGCAGTTTGAGTTGATTCG</b> | ctcttttaagtagagcttg...82...      | ttcccacagttt | taaaatat |
| C.Jap | ttccccac | tcggg----- | <b>CAGTTTGAGTTG</b>          | atccgctcttttgacatgga-----..91... | ttcccacatttt | tccgaaaa |
| C.Rem | tgctgtgt | ccggg----- | <b>CAGTTTGAGTTGATTCG</b>     | ctcttccccgatagagcttg...89...     | ttcccacatctt | ttgagatt |
|       |          | * *        | *****                        | *****                            | * **         | ***** ** |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |            |                        |                       |                               |  |                    |          |
|-------|------------|------------------------|-----------------------|-------------------------------|--|--------------------|----------|
| C.Ele | --aggttggt | gtttcaggaatt...747...  | ggaatgtttctgctggcga   | <b>CGAATcCAATgaTCAAcaGCTG</b> | -----acttggaaatcatggaatggg-----...         | 421...ttacagaacga  | attgaaaa |
| C.Bre | --aggtgagt | agtttttatag...1758...  | aaatgggtccttctcctggca | <b>CGGATcCAATgaTCAAcaGCTG</b> | <b>CaCTTG</b> gaagaccggggagaggggga-----... | 1570...ttcagaaacga | atcgaaaa |
| C.Jap | --aggtgagt | atTTaagggat...1655...  | aaatgaattggcgcaaagc   | -----CAATgaTCAAcaGCTG         | -----acattgcggcaggaagagaa-----...          | 101...tTtaagaacga  | gtggaaaa |
| C.Rem | gaaggtca-- | gTtagaggaatg...1221... | agatgaatgtttgctggca   | <b>CGAATcCAATgaTCAAcaGCTG</b> | -----aca---gaaatcgagagaaatca...            | 1045...ttcagaaacga | atcgaaaa |
|       | ****       | *                      | * * *                 | *****                         | *  | ** *****           | * ****   |

id=287769 gene=Y11D7A.14 name=Y11D7A.14 segment=chrIV\_9275124\_9276377\_1 type=IN

Figure 2: CS=5.52



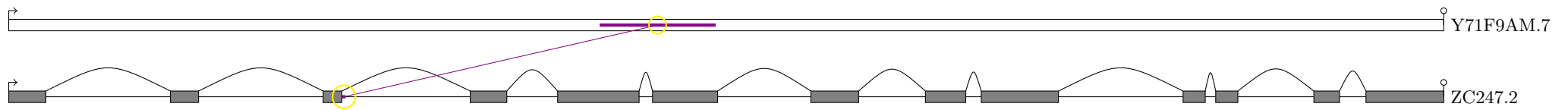
|       |           |  |             |  |          |
|-------|-----------|--|-------------|--|----------|
| C.Ele | -cctgacac | acggccagtttgagttgattcgctctttcgcaatagagctttgagtcaaatt | ACTGTCCGAAA | ---ttatagagatgaagctcat---t...40...--ttcccacaattt | tctctagt |
| C.Bri | -gccactcc | acgggcagtttgagttgattcgctctttattgatggagc-ttgggtcaaatt | ACTGTCCGAAA | GATAgagaaga-agatctaataat...39...tcttcccaca--ct   | tcaactgt |
| C.Bre | -accccgtc | acgggcagtttgagttgattcgctcttttaaagtagagc-ttgggtcaaatt | ACTGTCCGAAA | ---ttatagaga-ggagctcatg--t...41...--ttcccacagttt | taaaatat |
| C.Rem | tgctgtgtc | -cgggcagtttgagttgattcgctcttccccgatagagc-ttgggtcaaatt | ACTGTCCGAAA | ---tcgtagaga-agagtcacc--t...48...--ttcccacatctt  | ttgagatt |
|       | *         | *  | ***         | *****  | *        |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |                      |   |          |
|-------|----------|----------------------|---|----------|
| C.Ele | tcttttag | gtattctTTTgCGGACGGT  | tagtcaaaagtgtactgtag...469...ttttttttcag  | gaataatc |
| C.Bri | tcttttag | gTATTcTTTTgCGGACGGT  | tagtctaattaggaatagag...245...tctaatttcag  | gaatcatc |
| C.Bre | tcttttag | gtattctTTTgCGGACGGT  | tagtcttagtgttaggatag...128...gccgtgttacag | gaataatc |
| C.Rem | tcttttag | gtattctTTTTgCGGACGGT | tagtcttagtgttaggatag...106...tctactttccag | gaataatc |
|       | *****    | *****                | * * **                                    | ** **    |

id=269455 gene=F40A3.4 name=F40A3.4 segment=chrV\_7875900\_7876420\_1 type=IN

Figure 3: CS=6.84



```

C.Ele -cctgacac acggccagtttgagttgattcgcctcttcgcaatagagctt-----TGAGtcAAATTACTGTCCGGaaattatagagatgaagctc-...43...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagtttgagttgattcgcctctttattgatggagctt-----GGGTcaAAATTACTGTCCGAaatgatagagaagaagatc-...47...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagtttgagttgattcgcctctt-----ttAAAGtAGAGctTGGGtcAAATTACTGTCCGAaaattatagaga-ggagctca...44...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagtttgagttgattcgcctcttcccgatagagcttgggtc-----AAATTACTGTCCGAaaatcgtagagaagagtgca-...51...--ttcccacatctt ttgagatt
      *      *      *** ***** **
  
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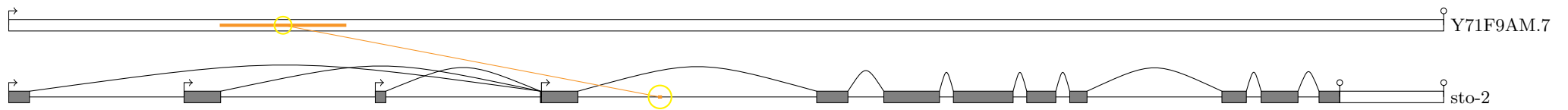
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

```

C.Ele cTTGGAcC AGTtAGTTTctTTTG-----tttctttgccaacacttgtt--...477...tcaaattttca gaaaagcg
C.Bri cTTGGAcC AGTtAGTTcATCT-----tattcatattatttcttgt...385...atthttatttca gaaaagtg
C.Bre cTTGGAcC AGTtAGTTTctCTCATTTCCTTTtctgcctgtgccacttcta--...482...tcgttttattca gaaaagtg
C.Rem  cTTGGAcC AGTtAGTTT-----cactattcttcttctgc...412...taaaaactttca gaaaagtg
      ***** ***** * ***** *
  
```

id=225094 gene=ZC247.2 name=ZC247.2 segment=chrI\_10259605\_10260128\_-1 type=IN VIEW

Figure 4: CS=5.52



```

C.Ele -cctgacac acggccagttTGAGTTGATTcGCTCtttcgcaatagagctttgag...79...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagttTGAGTTGATTcGCTCtttattgatggagcttgggt...82...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagttTGAGTTGATTcGCTCttttaaagtagagcttgggt...79...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagttTGAGTTGATTcGCTCttccccgatagagcttgggt...86...--ttcccacatctt ttgagatt
      * *   *** ***** * ***** * ***** *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

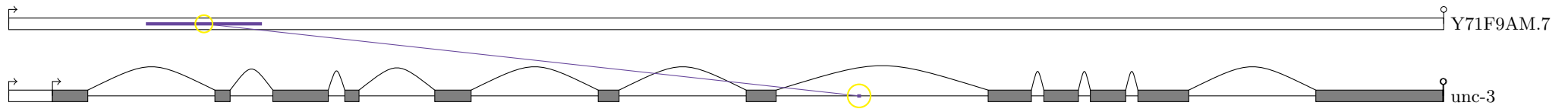
```

C.Ele  gggtcgca ggtaagcacttt...219...tacacggaagattacactttGAGTAATCcgAACTCAAttcatcaaagccttctttg...1821...ttacgcttttca ggttcact
C.Bri  gggacgca ggtaagcacttt...225...tacacggaagattacactttGAGTAATCcgAACTCAAttcatcaaagcacttctttc...2100...tcccttttttca ggttcaca
C.Bre  gggacgca ggtaagcacttt...244...tacacggaagattacactttGAGTAATCcgAACTCAAttcatcaaagcacttctttg...1028...atctattttca ggttcacc
C.Rem  gggtcgca ggtaagcacttt...224...tacacggaagattacactttGAGTAATCcgAACTCAAttcatcaaagcacttctttg...681...aaaatccttaca gattcact
*** ** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=233799 gene=F32A6.5 name=sto-2 segment=chrX\_5309491\_5311610\_-1 type=IN

Figure 5: CS=6.2



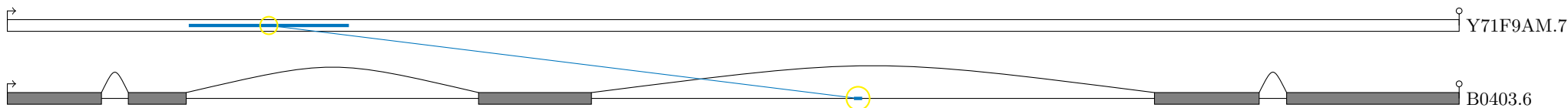
|       |          |         |                       |              |                   |                |          |
|-------|----------|---------|-----------------------|--------------|-------------------|----------------|----------|
| C.Ele | cctgacac | acggc-- | <b>CAGTTTGAGTTG</b>   | attcgctctttc | gcaataga...87...  | --ttcccacaattt | tctctagt |
| C.Bri | gccactcc | acggg-- | <b>CAGTTTGAGTTG</b>   | attcgctctttt | attgatgga...90... | tcttcccaca--ct | tcaactgt |
| C.Bre | accccgtc | acggg-- | <b>CAGTTTGAGTTG</b>   | attcgctctttt | aaagtaga...87...  | --ttcccacagttt | taaaatat |
| C.Jap | --ttcccc | actcg   | <b>GGCAGTTTGAGTTG</b> | atccgctctttt | gacatgga...91...  | --ttcccacathtt | tccgaaaa |
|       |          | **      | *****                 | *****        | * **              | *****          | *        |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |            |                       |                       |        |                            |                                  |              |          |
|-------|------------|-----------------------|-----------------------|--------|----------------------------|----------------------------------|--------------|----------|
| C.Ele | ttgtttga-- | tagttcttaaaa...279... | -gtgccagaaaaatgagt--  | agg    | <b>CAGCtgTCAAAttGCTG</b>   | acacctcgataaatgcccgg--...1008... | agattccgagta | ctctgaat |
| C.Bri | --gttagttt | cgggtttttatt...247... | ---cctagaaaaatgagc    | gagagg | <b>CAGCtgTCAAAttGCTG</b>   | acacctcgataaatggcgat--...331...  | agattccgagta | ttctgaat |
| C.Bre | cagtttgatt | ttcttctttt--...294... | cgtg-ccagaaaaatgagt-- | agg    | <b>CAGCtgTCAAAttGCTG</b>   | acacctcgataaatgcccgg--...276...  | agattccgaata | ctccgagt |
| C.Jap | --ttgtaatc | tgtttctttttc...123... | cacgtgca-aaaacgaga--  | aag    | <b>CAGCtgTCAAAttGCTGTC</b> | acacctcgataaatgccatctt...843...  | agattccgaata | ttccgaat |
|       | *          | **                    | **** *                | *      | *****                      | *****                            | *****        | ** ** *  |

id=302694 gene=Y16B4A.1 name=unc-3 segment=chrX\_14780036\_14781402\_1 type=IN

Figure 6: CS=5.8



```

C.Ele -cctgacac acggccaGTTTGAgtTGATtCGCTCtTTCGCaatagagctttgagtcaaat...73...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcaGTTTGAgtTGATtCGCTCITTATt gatggagc-ttgggtcaaatt...76...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcaGTTTGAgtTGATtCGCTCtTTTAAagtagagc-ttgggtcaaatt...74...--ttcccacagttt taaaatat
C.Rem tgctgtgtc -cgggcaGTTTGAgtTGATtCGCTCttccccgatagagc-ttgggt-----...86...--ttcccacatcct ttgagatt
* * *** ***** * **** ** * ***** * *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI.2935787\_2935922\_1 type=EN

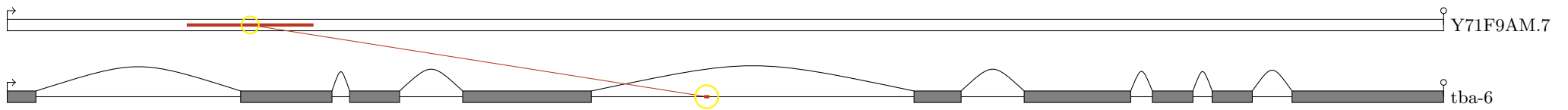
```

C.Ele ttgctcct gaagaagtgagt...402...ttgtgagaacgggagaaaga---GTGGGtcGAGCGATCAcaTCAGGTgcatgaaagataattaaga...1760...--tatatttatgta ttgcaggt
C.Bri ttgctcct gaagaagtgagt...406...---cgagaagcaaagagcgagagAGTGGGtcGAGCGATCAcaTCAGGTgcatgaaagataattgaga...1290...--attaacacatt tttcaggt
C.Bre ttgctcct gaagaagtgagt...386...---aagaacgggagaaagag-TGGGtcGAGCGATCAcaTCAGGTgcatgaaagataattgtga...1070...--aattccttttt tttcaggt
C.Rem ttgctcct gaagaagttagt...375...-----aaacgggagaaagatgggtc---GAGCGATCAcaTCAGGTgcatgaaagataattgaga...721...aagttta--atatt tttcaggt
*** ** * ***** ** * * * * * ***** ** * * * * *

```

id=329076 gene=B0403.6 name=B0403.6 segment=chrX.7071867\_7074116\_-1 type=IN

Figure 7: CS=5.52



|       |           |                |                          |                           |                         |                |                |          |
|-------|-----------|----------------|--------------------------|---------------------------|-------------------------|----------------|----------------|----------|
| C.Ele | -cctgacac | acggccagt      | <b>TTGAGTTGATTCC</b>     | ctctttcgcaatagagcttt----- | ...82...                | --ttcccacaattt | tctctagt       |          |
| C.Bri | -gccactcc | a <b>CGGGc</b> | <b>AGTTGAGTTGATTCC</b>   | ctctttattgatggagcttg----- | ...85...                | tcttcccaca--ct | tcaactgt       |          |
| C.Bre | -accccgtc | acgggcagt      | <b>TTGAGTTGATTCC</b>     | <b>TCTTTT</b>             | aaagtagagcttgggtcaaa... | ...75...       | --ttcccacagttt | taaaatat |
| C.Rem | tgctgtgtc | -cgggcagt      | <b>TTGAGTTGATTCCGCTC</b> | ttcccgatagagcttgggt----   | ...86...                | --ttcccacatctt | ttgagatt       |          |
|       | *         | *              | ***                      | *****                     |                         | *****          | *              | *        |

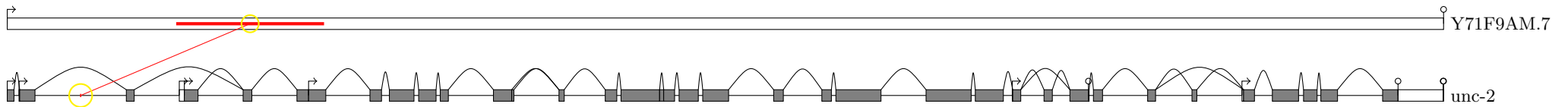
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI.2935787\_2935922\_1 type=EN

|       |          |                 |         |                      |               |                         |                           |                         |              |             |          |
|-------|----------|-----------------|---------|----------------------|---------------|-------------------------|---------------------------|-------------------------|--------------|-------------|----------|
| C.Ele | tagcaagg | tacaatcacaaa... | .236... | -----tgagaacatcctg   | cgacgaa       | <b>CGAATCGATTCAA</b>    | tttcttagcagtaaacaca-----  | ...1585...              | aataatttcaga | ccaaccta    |          |
| C.Bri | tagccagg | taacataagcac... | .260... | -----taagaacatcttt   | cgatgaa       | <b>CGAATCGATTCAATT</b>  | <b>CCTG</b>               | ggcagtgatagttgaatgat... | .2177...     | atcttttcaga | ccaaccta |
| C.Bre | tagcaagg | taaacatccat...  | .280... | actgcagtagcaacatcctg | <b>AGAAGA</b> | <b>CGAATCGATTCAA</b>    | ttcatttgcagtgaatac-----   | ...1408...              | gaaatttcaga  | ccaacata    |          |
| C.Rem | tggcaagg | tatgttcacaag... | .235... | ----cagtgagaacatcctg | cgac          | <b>GAGCGAATCGACTCAA</b> | tttcatattgcagtgaaacc----- | ...1808...              | atatttcaga   | ccaacata    |          |
|       | * ** **  | **              | *       | *                    | *****         | *                       | ** **                     | *****                   | ** **        | *****       | **       |

id=181975 gene=F32H2.9 name=tba-6 segment=chrI.8995563\_8997460\_1 type=IN VIEW

Figure 8: CS=5.2





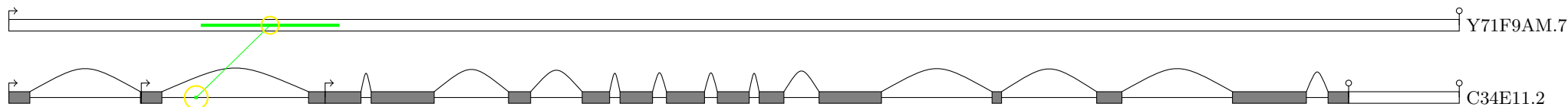
|       |            |          |          |           |       |            |           |             |          |                |          |
|-------|------------|----------|----------|-----------|-------|------------|-----------|-------------|----------|----------------|----------|
| C.Ele | -cctgacac  | acggccag | TTGaGTTG | atTCGCTCT | ttcgc | aatagagctt | tgagt     | -----       | ...78... | --ttcccacaattt | tctctagt |
| C.Bri | -gccactcc  | acgggcag | TTGaGTTG | atTCGCTc  | TTTA  | atGATGG    | agcttgggt | caaattactgt | ...71... | tcttcccaca--ct | tcaactgt |
| C.Bre | -accccgctc | acgggcag | TTGaGTTG | atTCGCTCT | tttaa | agtagagctt | gggtc     | -----       | ...78... | --ttcccacagttt | taaaatat |
| C.Rem | tgctgtgtc  | -cgggcag | TTGaGTTG | atTCGCTCT | tcccc | gatagagctt | gggtc     | -----       | ...85... | --ttcccacatctt | ttgagatt |
|       | *          | *        | ***      | *****     |       | *          | *****     | *           |          | *****          | * * *    |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |              |         |        |            |       |                 |                 |             |        |                 |                   |           |              |              |          |
|-------|----------|--------------|---------|--------|------------|-------|-----------------|-----------------|-------------|--------|-----------------|-------------------|-----------|--------------|--------------|----------|
| C.Ele | tagacggt | aagtgt       | -----   | ttattt | ...2519... | ----- | atcccgcgtcgaccg | ttttGGGGCGACGAC | cgCAAA      | acc--- | ctcgccattgattg  | tc...             | 1465...   | ttgatttcagag | tagtcgat     |          |
| C.Bri | tagacggt | tagttc       | -----   | tttttg | ...2035... | tgcgg | taatcccacgtcgac | CCGTTT          | GGGGCGACGAC | cgCAAA | acc             | cctctcgaccattgatt | ---       | ...1129...   | cctatttcagag | tagtcgat |
| C.Bre | ccggaggt | tagttgggggat | -----   | ...    | 2587...    | ----- | atcccgcgtcgaccg | ttttGGGGCGACGAC | cgCAAA      | acc--- | ctcgaccattgattg | tc...             | 1119...   | caaatttcagag | tagtcgat     |          |
| C.Rem | -----gt  | tagttcaagcgt | ttttaga | ...    | 1503...    | ----- | atcccgcgtcgaccg | ttttGGGGCGACGAC | cgCAAA      | acc    | cccgaccattgattg | ---               | ...641... | acaatttcagag | tagtcgat     |          |
|       | **       | ***          | *       |        |            | ****  | *****           | *****           |             | *      | **              | *****             |           | *****        | *****        |          |

id=190491 gene=T02C5.5 name=unc-2 segment=chrX\_2743735\_2747799\_-1 type=IN

Figure 9: CS=5.2



```

C.Ele -cctgacac acggccagTTTGAGtTGATTCGCTctttcgcaatagagctttga...80...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagTTTGAGtTGATTCGCTctttattgatggagcttggg...83...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagTTTGAGtTGATTCGCTcttttaaagtagagcttggg...80...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagTTTGAGtTGATTCGCTcttccccgatagagcttggg...87...--ttcccacatcctt ttgagatt
      * *   * ** *

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id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

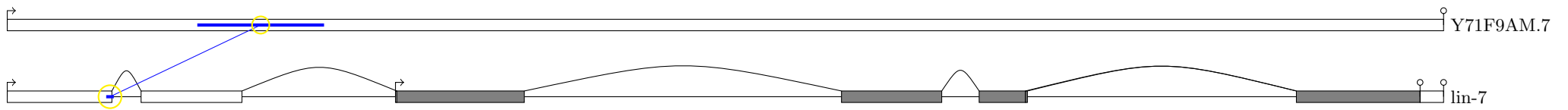
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C.Ele  cgcgacg tttctattggtg...107...--aactgcctcatcttccaccaGGCGGAATCGccCTCAAGatatacaattcatattgtat-...2198...ttaaggatcaaa catcttta
C.Bri  cgcgacga tttttgttgta...125...ttttcactgtattctttca--aGGCGAgaATCGccCTCAAGatatacaattcat-ctgtatt...2424...ttacggatcaga aatcttta
C.Bre  cgcgacga tttttgttgta...125...tttcaatccttttcttcca--aGGCGAgaATCGccCTCAAGatatacaattcat-ttgtatt...1869...ttatgaatcaaa catcttta
C.Rem  cgcgacga tttctgttgta...133...tctctagtctcttcttcca--aGGCGAgaATCGccCTCAAGatatacaattcat-ttgtatt...1533...ttacggatcaaa catcttta
***** ** * ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

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id=78911 gene=C34E11.2 name=C34E11.2 segment=chrX\_11811473\_11813860\_-1 type=IN

Figure 10: CS=5.52



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C.Ele -cctgacac acggccagTTGAGTTGATTGCGTctttcgcaatagagctttga...80...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagTTGAGTTGATTGCGTctttattgatggagcttggg...83...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagTTGAGTTGATTGCGTcttttaaagtagagcttgg...81...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagTTGAGTTGATTGCGTctttccccgatagagcttggg...87...--ttcccacatctt ttgagatt
      * * * * *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI.2935787.2935922\_1 type=EN

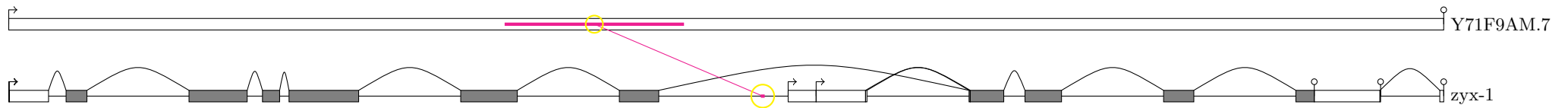
```

C.Ele aattatct aaattcaaattt--...115...gtgcgaaaagacgatttgctGCTGAATCAATTCAAAat gaattatc
C.Bri gtccgttt tcgttcaaattt--...121...gtcggaaaagacgagttgctGCTGAATCAGTTCAAAat gaactatc
C.Bre --ctgttt ctaacaattatca...115...-tgcgaaaaaacgacttgctGTGAATCAGTTCAAAat gaactatc
C.Rem  tatcaact aaaa--agctataa...112...gtgaggaaggacgagctgttGCTGAATCAGTTCAGAat gaattatc
      * * * * *

```

id=133746 gene=Y54G11A.10 name=lin-7 segment=chrII.14349166.14349330\_-1 type=E5

Figure 11: CS=5.8



```

C.Bri -gccactccacgggcagtttgagttgattcgctctttatgatggagc-TTGGgTCAAATTAcTGTCcgaaaatgatagagaagaag...50...tcttcccaca--cttcaactgt
C.Bre -accccgtcacgggcagtttgagttgattcgctcttttaagtagagc-TTGGgTCAAATTAcTGTCcgaaaattatagagaggagc...47...--ttcccacagttttaaatat
C.Jap  ttcccact-cgggcagtttgagttgatccgctcttttgacatggaGCTTTGGgTCAAATTAcTGTCcgaaaatgatagagaagaagc...50...--ttcccacatttttccgaaaa
C.Rem  tgctgtgtc-cgggcagtttgagttgattcgctcttccccgatagagc-TTGGgTCAAATTAcTGTCcgaaaatcgtagagaagagt...54...--ttcccacatcttttgagatt
          *          *****          * ****          *****          * *          *****          *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

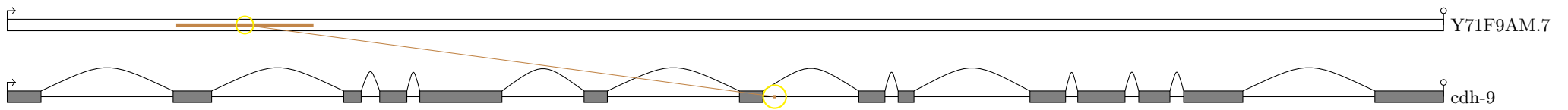
```

C.Bri  ttcatctctctttctcttt---...1756...accagcacaacctatggaaaGACAaaTAGTgTTGAaCCGA---aaataaatgacaccaagag...100...-----ttctctgagctctgtgcctc
C.Bre  tt--tctctctttctttctatg-...1575...atccaacaacctatcgaaaGACAaaTAGTgTTGAaCCGA---aaataaatgacaccaagag...87...ctacggttctc-----ctgtgctct
C.Jap  ---gtttctgtttctttctcatc...549...caactcgaacctatcgaaGGTAaaTAGTgTTGAaCCGAAGTgatcaggggagccccgagag...40...caacagtt-----gctccctctctc
C.Rem  ---tcctctctctttttttg...1493...ccaccaacaacctatcgaaaGACAaaTAGTgTTGAaCCGA---aaataaatgacaccaagag...62...ctacggttctc-----ctgtgctct
          **   *****   *          *****   * **   *****          * *   * **   * **          **          * *

```

id=132829 gene=F42G4.3 name=zyx-1 segment=chrII\_13065009\_13066938\_1 type=IN

Figure 12: CS=5.8



```

C.Ele -cctgacac acggccagTTTGAGTTGaTTCGctctttcgaatagagcttt...82...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagTTTGAGTTGaTTCGctctttattgatggagcttg...85...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagTTTGAGTTGaTTCGctcttttaagtagagcttg...82...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagTTTGAGTTGaTTCGctcttccccgatagagcttg...89...--ttcccacatctt ttgagatt
      *      *  *** ***** * ***** ***** *
  
```

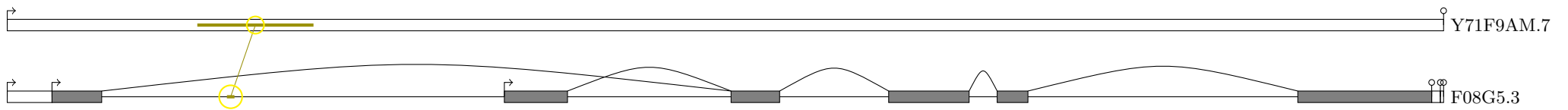
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

```

C.Ele aagtgatt-----ctctttca-----ctccgttgctgtc-----ttggttcatTGAACAACtTCAAGacgatgacatc---tgtattcat...287...aggcctctgaac gagaagat
C.Bri aagccatttccattttttgttcg cgttttctttcatttcttctatttctgcccgtgtttttatctggttcatTGAACAACtTCAAGatg-tgcgttcgatttgattt--...286...aggcagctgaaa aagacgat
C.Bre aagcaatt-----ctctttcatctgtttccactatt-ttttc-----ttggttcatTGAACAACtTCAAGatg-tgtgttc--gttcaattct...247...aggcagctgaaa aggatgac
C.Rem aagcaatt-----catctttc---tctccctccgtt-ttttc-----ttggttcatTGAACAACtTCAAGatg-tgcgttc--ttttattcaa...286...aggccgccgaaa gggacgat
      *** ** * ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  
```

id=160586 gene=F59C12.1 name=cdh-9 segment=chrX\_16599244\_16599606\_1 type=IN

Figure 13: CS=5.52



```

C.Ele -cctgacac acggccagtTTGAGTTGATTCGctctttcgcaatagagcttt...82...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagtTTGAGTTGATTCGctctttattgatggagcttg...85...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagtTTGAGTTGATTCGctcttttaaagtagagcttg...82...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagtTTGAGTTGATTCGctcttccccgatagagcttg...89...--ttcccacatcct ttgagatt
      *   *   *** ***** * ***** ***** *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

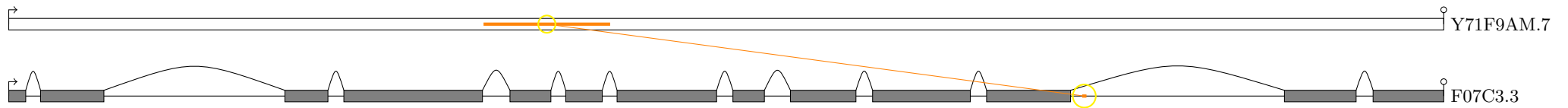
```

C.Ele ttcaaaaa tgccagaggtaa...192...ggactttgaatcctgcgaccCGAGTTCAAatCTCGGtggacctatggtttttgca...2503...tttctactcact attcgaga
C.Bri attcaaaa tgccagaggtaa...202...ggactttgaatcctgcgaccCGAGTTCAAatCTCGGtggacctatgcctttttt...2237...tctctcgtcagt tttcaagt
C.Bre cttcaaaa tgccagaggtaa...221...ggactttgaatcctgcgaccCGAGTTCAAatCTCGGtggacctatgctttttgag...2097...cattttatctct ctttgagt
C.Rem cttcaaaa tgccagaggtaa...210...ggactttgaatcctgcgaccCGAGTTCAAatCTCGGtggacctatcgttttttac...2221...cacttcatttct atttgagt
      *   *** ***** ***** ***** ***** *   *   ** **

```

id=324731 gene=F08G5.3 name=F08G5.3 segment=chrIV\_12414691\_12417465\_-1 type=IN

Figure 14: CS=5.2



```

C.Bri -gccactccacgggcagtttgagttgattcgctctttattgatggaGC-TTGGGTCAAATtactgtccgaaatgataga...57...tcttcccaca--cttcaactgt
C.Bre -accccgtcacgggcagtttgagttgattcgctcttttaaagtagaGC-TTGGGTCAAATtactgtccgaaattataga...54...--tcccacagttttaaatat
C.Jap ttccccact-cgggcagtttgagttgatccgctcttttgacatggaGCTTGGGTCAAATtactgtccgaaatgataga...57...--tcccacattttccgaaaa
C.Rem tgctgtgtc-cgggcagtttgagttgattcgctcttccccgatagaGC-TTGGGTCAAATtactgtccgaaatcgtagag...60...--tcccacatctttgagatt
      *          *****          *      *      *      *      *      *      *      *      *      *      *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

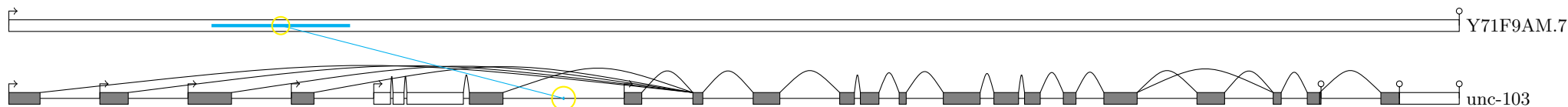
```

C.Bri agcagaaaaaggt-----aagag---aagaaaacaaaac-ATTGACCCAGGCagggatcgaacctgcaatct...121...ttggac--ttcttcaggatca
C.Bre atcagaaaaaggt-----aag--taaaaatggcaaat-ATTGACCCAGGCagggctcgaacctgcaatct...220...--aattaattctttcaggacca
C.Jap aacaaaaagagtaattt-----aattttcaaaa----aaac-ATTGACCCAGGCagggtcgaacctgcaatct...117...ttcaat--gctttcaggatca
C.Rem accagaaaaaggttaatatatttattgaaatacaaaagattaaaaaaagataaaaGATTGACCCAGGCagggctcgaacctgcaatct...139...--caacctatttacaggatca
* * * * *          *      *      *      *      *      *      *      *      *      *      *      *      *

```

id=8892 gene=F07C3.3 name=F07C3.3 segment=chrV\_9228127\_9229886\_-1 type=IN

Figure 15: CS=11.12



|       |           |            |         |          |  |          |
|-------|-----------|------------|---------|----------|--|----------|
| C.Ele | -cctgacac | acggccagtt | TGAGTTg | ATTCGCTC | tttcgcaatagagctttgag...79...--ttcccacaattt | tctctagt |
| C.Bri | -gccactcc | acgggcagtt | TGAGTTg | ATTCGCTC | tttattgatggagcttgggt...82...tcttcccaca--ct | tcaactgt |
| C.Bre | -accccgtc | acgggcagtt | TGAGTTg | ATTCGCTC | ttttaaagtagagcttgggt...79...--ttcccacagttt | taaaatat |
| C.Rem | tgctgtgtc | -cgggcagtt | TGAGTTg | ATTCGCTC | ttcccgatagagcttgggt...86...--ttcccacatctt  | ttgagatt |
|       | *         | *          | ***     | *****    | * ***** *                                  | ***** *  |

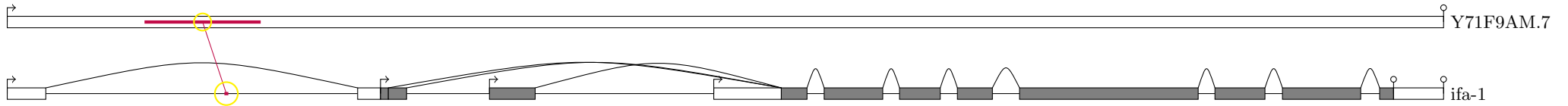
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |   |       |            |  |          |
|-------|----------|---|-------|------------|--|----------|
| C.Ele | ttcagcgg | taagtttaaatt...3520...-acacacacacactgctccgt | GAGCa | GAATAATTCa | ttataactaatgct-tggctct...706...-accacg-tggcaa  | tgctgtcc |
| C.Bri | ttcagctg | taagtttttta...3361...-cttttttctacgccttcgt   | GAGCa | GAATAATTCa | ttataactaatgct-gggtgct...1549...-agcagg-taccag | tggggtgt |
| C.Bre | ttctgccg | tgagttttttg...3506...-tgggttctcccctccatcgt  | GAGCa | GAATAATTCa | ttataactaatgctctggtgc...1404...-ctgtggtgtaaa   | tgctgacg |
| C.Rem | ctcagcgg | taagtttttgta...4198...gacatttctcta-ggcttcgt | GAGCa | GAATAATTCa | ttaaactaatgccccgacgc-...712...tactgtg-gtaaa    | tgctgacg |
|       | ** ** *  | * ***** *                                   | *     | *****      | ***** * *                                      | * * ** * |

id=213651 gene=C30D11.1 name=unc-103 segment=chrIII\_4134381\_4138685\_1 type=IN

Figure 16: CS=5.2





|       |          |       |             |  |            |
|-------|----------|-------|-------------|--|------------|
| C.Ele | cctgacac | acggc | CAGTTGAGTTG | attcgctctttcgcaataga...87...--ttcccacaattt | tctctagt   |
| C.Bri | gccactcc | acggg | CAGTTGAGTTG | attcgctctttatgatgga...90...tcttcccaca--ct  | tcaactgt   |
| C.Bre | acccgctc | acggg | CAGTTGAGTTG | attcgctcttttaagtaga...87...--ttcccacagttt  | taaaatat   |
| C.Jap | ttccccac | tcggg | CAGTTGAGTTG | atccgctcttttgacatgga...91...--ttcccacattt  | tccgaaaa   |
| C.Rem | tgctgtgt | ccggg | CAGTTGAGTTG | attcgctcttccccgataga...94...--ttcccacatctt | ttgagatt   |
|       |          |       | *** *****   | *****                                      | ** ***** * |

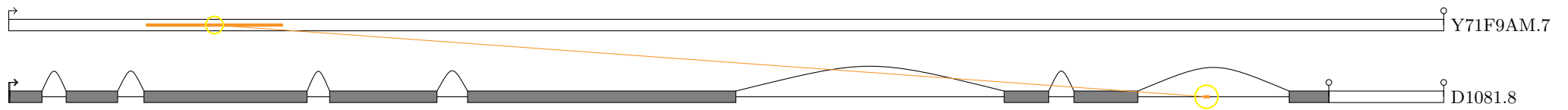
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |                 |         |                 |        |          |      |                              |           |              |          |
|-------|----------|-----------------|---------|-----------------|--------|----------|------|------------------------------|-----------|--------------|----------|
| C.Ele | gcaagtgt | gcgggaggaaa...  | 766...  | gagatthttgagttc | taaaaa | CAACTCAA | ACTG | atgaaatgtgcgctgacttt-----    | ...337... | ccagaaactcgt | tcaaacgg |
| C.Bri | gagtgtgt | gcgggaggaaa...  | 1178... | atgggaaagagttc  | taaaaa | CAACTCAA | ACTG | acacaa-----atcgacttttctgc... | 387...    | ccagaaactcgt | tcaaacgg |
| C.Bre | gcaagtgt | gcgggaggaaa...  | 635...  | gggaatttgagttc  | taaaaa | CAACTCAA | ACTG | acgaaatgtacgctgacttt-----    | 347...    | ccagaaactcgt | tcaaacgg |
| C.Jap | ggggctgg | gttgggtaaaag... | 266...  | ttggttgggagtc   | taaaaa | CAACTCAA | ACTG | acgaaatgtgcgctgacttt-----    | 361...    | tcagaaactcat | tcaaacgg |
| C.Rem | acgattgt | gcgggaggaaa...  | 425...  | gggaatgatgattc  | gaaaaa | CAACTCAA | ACTG | acgaaatgtgcgctgacttt-----    | 342...    | ccagaaactcgt | tcaaacgg |
|       | **       | *               | **      | *               | *      | ****     | *    | *****                        | **        | *****        | *****    |

id=233119 gene=F38B2.1 name=ifa-1 segment=chrX\_11269941\_11271119\_1 type=I5

Figure 17: CS=5.4





```

C.Ele -cctgacac acggcCAGTTTGAGtTGATtcgctctttcgcaatagagc...85...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggCAGTTTGAGtTGATtcgctctttattgatggagc...88...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggCAGTTTGAGtTGATtcgctcttttaaagtagagc...85...--ttccacagttt taaaatat
C.Rem  tgctgtgtc -cgggCAGTTTGAGtTGATtcgctcttccccgatagagc...92...--ttccacatctt ttgagatt
      * *   *** ***** * ***   ***** * *
  
```

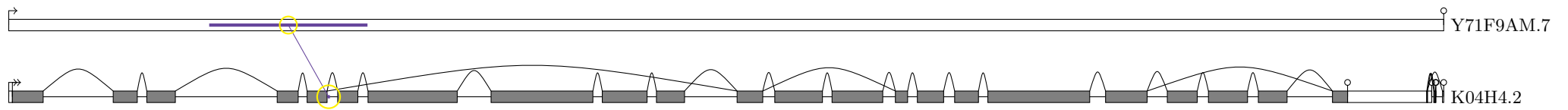
id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

```

C.Ele  ttgtcgag taagttttcatt...82...tctcattcattcttctgtttt--GTCATTCAAATTGacacttgactgaatgagcac...123...cctattttcaga taagcaat
C.Bri  ctttcaag tatgtttttact...302...--tcatccactgttctctttttGTCATTCAAATTGacacttgattgaatgtgcac...153...gcttttttcaga caagcagt
C.Bre  ctgtccag taagttttggtt...104...agtggatctctcttctgtttt--GTCATTCAAATTGacacttgactgaatgtgcac...176...ccgaattacaga caaacagt
C.Rem  ttgtcgag tgagtcctgatt...80...tgggagggactcctcacttt--GTCATTCAAATTGacacttaactgaatgtgcac...309...ttttttccaga caagcaat
      * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  
```

id=176416 gene=D1081.8 name=D1081.8 segment=chrI\_8495263\_8495544\_1 type=IN VIEW

Figure 19: CS=5.52



```

C.Ele -cctgacac acggccagtttGAGTTgATTCgcTCTTtcgcaatagagctttgagtc...77...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagtttGAGTTgATTCgcTCTTtattgatggagc-ttgggtca...80...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagtttGAGTTgATTCgcTCTTttaaagtagagc-ttgggtca...77...--ttcccacagttt taaaatat
C.Rem tgctgtgtc -cgggcagtttGAGTTgATTCgcTCTTccccgatagagc-ttgggtca...84...--ttcccacatcct ttgagatt
* * *** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

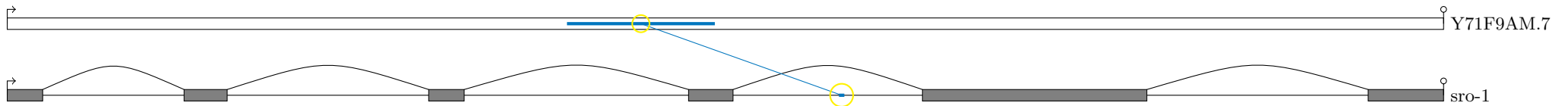
```

C.Ele aAAGAGAA TgAGCTCtctctcccgaagttg---ttttatgattaaccacata----ttatttcac taattgct
C.Bri aAAGAGAA TgAGCTCcctttctcgtaagttt---c---cagataaccttatcactc--tccctttct ccatt---
C.Bre aAAGAGAA TgAGCTCcctttcccgaagtttatcacttcccacaccttcca----tcagtcttc tgattata
C.Rem aAAGAGAA TgAGCTCcctttctcgtaagttt---cactcagataacc---tactcaattaccttat caatttga
***** ***** ** ** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=8161 gene=K04H4.2 name=K04H4.2 segment=chrIII\_9353391\_9353442\_-1 type=IN

Figure 20: CS=5.2



```

C.Ele -cctgacac acggccagtttgagttgattcgctctttcgcgaatagagctttgagTCAAATTACTgTCCGGaaattatagagatgaagctc...43...--ttcccacaattt tctctagt
C.Bri -gccactcc acgggcagtttgagttgattcgctctttattgatggagc-ttgggTCAAATTACTgTCCGaaaatgatagagaagaagat...48...tcttcccaca--ct tcaactgt
C.Bre -accccgtc acgggcagtttgagttgattcgctcttttaaagtagagc-ttgggTCAAATTACTgTCCGaaaattatagaga-ggagctc...45...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagtttgagttgattcgctcttccccgatagagc-ttgggTCAAATTACTgTCCGaaaatcgtagagaagagtgc...52...--ttcccacatctt ttgagatt
* * * * *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

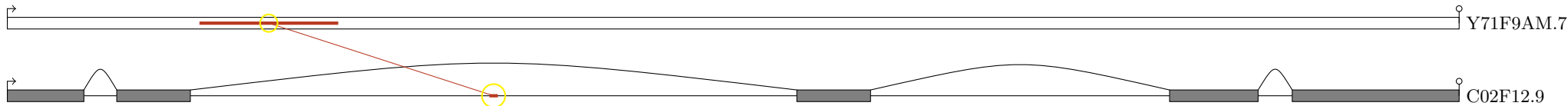
```

C.Ele cccaatcc acaacttttga...195...agagaggagttttagtagt--aCGGAAGTAATTGAacttttcaaagagaatgaga...149...aagttgtgacgc aataagca
C.Bri cccaatcc acaacttttga...184...--aaggagtttcattgcggtacCGGAAGTAATTGAacttttttggaaagggtac...134...aagttatgacgc aaaatgga
C.Bre cccaatcc acaacttttga...193...-agtaagaatttcattgcg--acCGGAAGTAATTGAacttttcgaagagagtacca...148...aagtgatgacgc aagagcaa
C.Rem cccaatcc acaacttttga...156...-gggaagagtttcattacg--acCGGAAGTAATTGAacttttttggagaagagt...151...gagaggaaaaga aacaagtt
*****

```

id=3580 gene=D1022.6 name=sro-1 segment=chrII.7461484\_7461905\_-1 type=IN

Figure 21: CS=5.2



```

C. Ele  cctgacac acggccagttTGAGTTGATCGCTctttcgcaatagagctttga-----...80...--ttcccacaattt tctctagt
C. Bri  gccactcc acgggcagttTGAGTTGATCGCTcTTTATTGatggagc-ttgggtcaaatta...75...tcttcccaca--ct tcaactgt
C. Bre  accccgtc acgggcagttTGAGTTGATCGCTctTTAaagtagagc-ttgggtcaaata--...74...--ttcccacagttt taaaatat
C. Jap  ttccccac tcgggcagttTGAGTTGATCGCTctTTGacatggagccttgggtcaaa---...78...--ttcccacatttt tccgaaaa
C. Rem  tgctgtgt ccgggcagttTGAGTTGATCGCTcttccccgatagagc-ttggg-----...87...--ttcccacatctt ttgagatt
*** ***** * **** *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

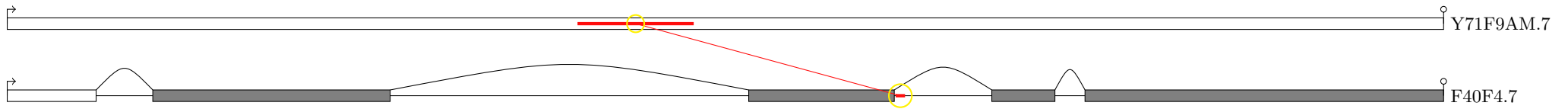
```

C. Ele  tacaccac ggtaattgcttt...536...-----gcttccgtagcgcagtaggcAGCGcGTCAGtCTCAtaactctgaaggtcgtgagtt...1541...tacattcttcca gccgccgt
C. Bri  tacttctc ggtaattgcttt...530...ctctcagcgcttccgtagcgCAGTAGGcAGCGcGTCAGtCTCAtaactctgaaggtcgtgagtt...2300...gaacaaatttta gccgtcgc
C. Bre  tactcctc ggtaattgcttt...457...--tcggcgcttccgtagcgcagTAGGcAGCGcGTCAGtCTCAtaactctgaaggtcgtgagtt...1648...tcagaacttgca gaccgccg
C. Jap  tccttcgc ggtaattgcttt...765...--gccgtgcttccgtagcgcagTAGGcAGCGcGTCAGtCTCAtaactctgaaggtcgtgagtt...1678...tcgacattttta gaccgccgt
C. Rem  tactcctc ggtaattgcctt...449...-----gcttccgtagcgcagtaggcAGCGcGTCAGtCTCAtaactctgaaggtcgtgagtt...1517...caacgattttta gccgccgt
* * * ***** **

```

id=26204 gene=C02F12.9 name=C02F12.9 segment=chrX\_3697196\_3699351\_1 type=IN

Figure 22: CS=6



|       |          |   |       |                     |                              |                              |                        |
|-------|----------|---|-------|---------------------|------------------------------|------------------------------|------------------------|
| C.Ele | cctgacac | acggccagtttgagttgattcgctctttcgcaatagagc | TTTGA | TCAAATTACTGTC       | cggaattatagagatgaag...46...  | --ttcccacaattt               | tctctagt               |
| C.Bri | gccactcc | acgggcagtttgagttgattc                   | GCTCT | TATTgaTGGAgcTTGGg   | TCAAATTACTGTC                | cgaaaatgatagagaagaag...50... | tcttcccaca-ct tcaactgt |
| C.Jap | ttccccac | tgggcagtttgagttgatccgctctttgacatggagct  | TTGGG | TCAAATTACTGTC       | cggaatgatagagaagagc...50...  | --ttcccacatttt               | tccgaaaa               |
| C.Rem | tgctgtgt | ccgggcagtttgagttgattcgctcttccccgatagagc | TTGGg | TCAAATTACTGTC       | cgaaaatcgtagagaagagt...54... | --ttcccacatctt               | ttgagatt               |
|       |          | *** ***** * * * * *                     |       | *** ***** * * * * * | ***** **                     | ***** *                      |                        |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI.2935787.2935922.1 type=EN

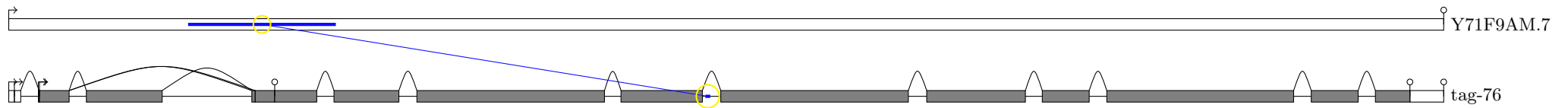
|       |          |       |       |       |               |                              |              |          |           |              |          |
|-------|----------|-------|-------|-------|---------------|------------------------------|--------------|----------|-----------|--------------|----------|
| C.Ele | ccGACAGT | GAgT  | TTTGA | TCAGA | ----          | tcaaattt                     | ccttatcaatg  | -----    | ...89...  | gctatttcagaa | tcggtatt |
| C.Bri | tcGACAGT | GAgT  | TTTGA | TCAAA | TTCAAATAAGAGT | ccttatcaatgacgttgcc...117... | attatttcagat | gcggaatt |           |              |          |
| C.Jap | tcGACAGT | GAgT  | TTTGA | TCTAA | ----          | tcaataagc                    | ccttatcaat   | -----    | ...139... | atTTTTgcagga | ttggtatc |
| C.Rem | ccGACAGT | GAgT  | TTTGA | TCAA  | ----          | atcaataaagc                  | ccttatcaa    | -----    | ...83...  | gttattacagat | gtggcatt |
|       | *****    | ***** | **    | * *   | *****         | * * * * *                    | *****        | ** * * * |           | ** **        | ** **    |

id=164985 gene=F40F4.7 name=F40F4.7 segment=chrX.3244510.3244645.-1 type=IN

Figure 23: CS=5.2







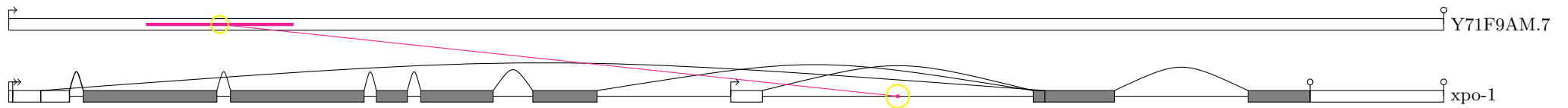
|       |          |                |                   |                 |                |                |          |
|-------|----------|----------------|-------------------|-----------------|----------------|----------------|----------|
| C.Ele | cctgacac | acggccag-----  | TTTGAgtTGATtCGCTC | tttcgcaatagagc  | tttgag...79... | --ttcccacaattt | tctctagt |
| C.Bri | gccactcc | acgggcag-----  | TTTGAgtTGATtCGCT  | ctttattgatggagc | -ttggg...83... | tctcccaca--ct  | tcaactgt |
| C.Bre | -----ac  | ccogtcACGGGCag | TTTGAgtTGATtCGCT  | cttttaaagtagagc | -ttggg...80... | --ttcccacagttt | taaaatat |
| C.Rem | tgctgtgt | ccgggcag-----  | TTTGAgtTGATtCGCT  | cttcccgatagagc  | -ttggg...87... | --ttcccacatctt | ttgagatt |
|       |          | * * *          | *****             | * **            | * **           | *****          | * *      |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |                       |  |            |          |
|-------|----------|-----------------------|--|------------|----------|
| C.Ele | aacagacG | AGTGccATCATCAAG       | -----gt--cagaa-tcattttcgcgggaaat-----          | ttaattttaa | gattattt |
| C.Bri | agcagact | AGTGccATCATCAAG       | -----gtaacaaaaaatcttttctagaaaaaggctctcatatttaa | ataa-tgt   |          |
| C.Bre | agcagacc | AGTGcAATCATCAAGGTCTGT | ctttcaa-----ttcagaaact-----tcctca              | aatgatgt   |          |
| C.Rem | aacaaaca | AGTGctATCATCAAG       | -----gtaacagag-----aggaaatatacaatagaatcgaa     | aaaagtaa   |          |
|       | * * *    | *****                 | * **   | * **       | * *      |

id=261525 gene=ZK757.3 name=tag-76 segment=chrIII\_9889058\_9889106\_-1 type=IN

Figure 25: CS=6



```

C.Ele cctgacac acgg----CCAGTtTGAGttGATTcgctctttcgaatagagct...84...--ttcccacaattt tctctagt
C.Bri gccactcc acggg----CAGTtTGAGttGATTcgctctttattgatggagct...87...tcttcccaca--ct tcaactgt
C.Bre ----acc ccgtcACGGgCAGTTTGAGttGATTcgctcttttaaagtagagct...84...--ttcccacagttt taaaatat
C.Rem tgctgtgt ccggg----CAGTtTGAGttGATTcgctctttcccgatagagct...91...--ttcccacatctt ttgagatt
**          ***** * ***** *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

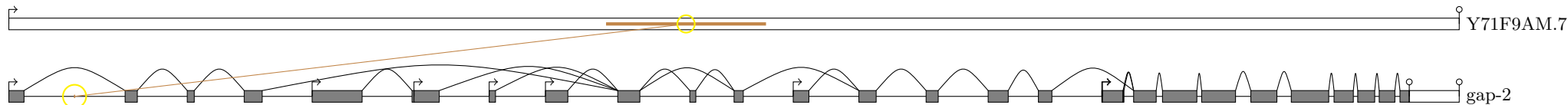
```

C.Ele ttgttaag gttggaatcat...1481...tctcgccatctttgcataaccAATCtCTCAttACTGGagtatcattttcctttgaaa----...1118...ttcttttttcag gtctcgac
C.Bri agtgatag tctaggaatcat...1463...tcttgccatctttgcataaccAATCtCTCAtcACTGgactatcgttctccttcgat-----...980...ccaatttcag gtctcgac
C.Bre gtatagag acttgaatcat...1464...tctagccatctttgcataaccAATCtCTCAtAACTGgaCTGTcattctctttcgaacgata...910...gttctattccag gtctcgac
C.Rem agatacag gctggaattcat...1475...tctcgccatctttgcataaccAATCtCTCAtcACTGgactgtcgttttcttctcgac-----...1120...aatctattccag gtctcgac
**          * * * * *          ** ***** ** * * * * *          ** * * * *****

```

id=198588 gene=ZK742.1 name=xpo-1 segment=chrV\_7809912\_7812590\_1 type=IN

Figure 26: CS=5.2



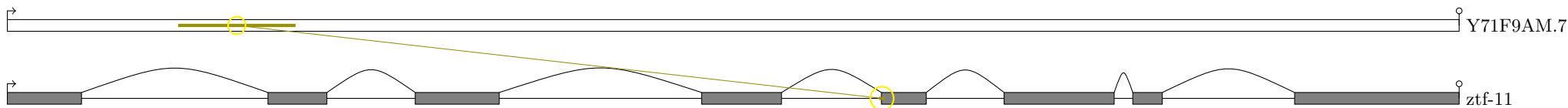
|       |           |  |        |          |          |                          |       |                |          |
|-------|-----------|--|--------|----------|----------|--------------------------|-------|----------------|----------|
| C.Ele | -cctgacac | acggccagtttgagttgattcgctctttcgcaatagagccttgagtca | AATTac | TGTCc    | GAAATTAT | agagatgaagctcatttga...   | 36... | --ttcccacaattt | tctctagt |
| C.Bri | -gccactcc | acgggcagtttgagttgattcgctctttattgatggagc-ttgggtca | AATTac | TGTCc    | GAAAT    | gatagagaagaagatctaat---  | 43... | tcttcccaca--ct | tcaactgt |
| C.Bre | -accctgac | acgggcagtttgagttgattcgctcttttaagtagagc-ttgggtca  | AATTac | TGTCc    | GAAAT    | atagaga-ggagctcatgtat-   | 39... | --ttcccacagttt | taaaatat |
| C.Jap | ttcccact  | -cgggcagtttgagttgatcogctcttttgacatggagccttgggtca | AATTac | TGTCc    | GAAAT    | gatagagaagagcttttcag---  | 43... | --ttcccacatttt | tccgaaaa |
| C.Rem | tgctgtgtc | -cgggcagtttgagttgattcgctcttccccgatagagc-ttgggtca | AATTac | TGTCc    | GAAAT    | cgtagagaagagtgacacctt--- | 47... | --ttcccacatctt | ttgagatt |
|       | *         | *** ***** *                                      | *      | *** ** * | ***** *  | ***** *                  |       | ***** *        | *        |

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

|       |          |   |                |                            |                         |                           |              |              |          |
|-------|----------|---|----------------|----------------------------|-------------------------|---------------------------|--------------|--------------|----------|
| C.Ele | gtaagtgt | atttcctacttt...1021...acctcctccttcatg--aacca-     | ATAAaa         | TTTTTGACAAGTT              | -----                   | ggatgaattga--aaccttctt... | 1538...      | atagagggtaat | ccaacaaa |
| C.Bri | gtaagtgt | acccatcgtgtt...1618...-----ctttaagaaaaacaaataaa-  | ATTTTGACAAGTT  | gcgggaggaagaattga--aa----- |                         | 1618...                   | tcagagggtaat | ccaacaaa     |          |
| C.Bre | gtaagtgt | acttgcttttca...1107...-----caccttcatg--aaccaataaa | AATTTTGACAAGTT | -----                      | ggaggaatga--aacctttg... | 1037...                   | tcagagggtaca | ccaagaaa     |          |
| C.Jap | gtaagtgt | actctcctctg...3443...--tatttacttttca-----cagtgaa- | ATTTTGACAAGTT  | -----                      | gaagtgggctaggcttact...  | 972...                    | tcagaaggcaat | ccagaaag     |          |
| C.Rem | gtaagtgt | acttccttttct...970...-----tactcttag--aaccaacaaaa- | ATTTTGACAAGTT  | -----                      | ggaggaatcga--aaccttgt-  | 801...                    | tcagagggtaaa | ccagccaa     |          |
|       | ***** *  | ** ** *   | ** ** *        | ***** *                    | *                       | *                         | *** ** *     | *** ** *     | ** *     |

id=11160 gene=ZK899.8 name=gap-2 segment=chrX\_9472562\_9475203\_1 type=IN

Figure 27: CS=5.4



```

C.Ele  -cctgacac acggccagTTGAGTTGATTcgctctttcgcaatagagct...84...--ttcccacaattt tctctagt
C.Bri  -gccactcc acgggcagTTGAGTTGATTcgctctttattgatggagct...87...tcttcccaca-ct tcaactgt
C.Bre  -accccgtc acgggcagTTGAGTTGATTcgctcttttaagtagagct...84...--ttcccacagttt taaaatat
C.Rem  tgctgtgtc -cgggcagTTGAGTTGATTcgctcttccccgatagagct...91...--ttcccacatctt ttgagatt
      *      *      *** ***** * ***** * ***** *

```

id=144825 gene=Y71F9AM.7 name=Y71F9AM.7 segment=chrI\_2935787\_2935922\_1 type=EN

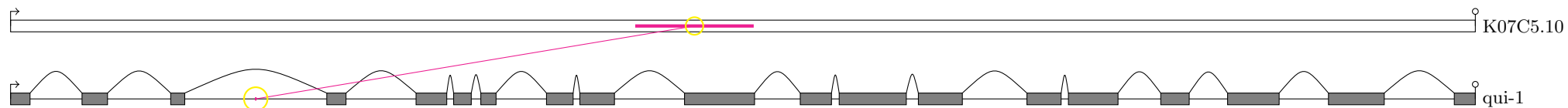
```

C.Ele  tcagacgt ggtaaggacttt...222...----ttccatttgagcgggtac--taAGTCccAACTttCA GAaggcaa
C.Bri  tcagacgt ggtaggtttatt...353...----ttttccat----atcagtactttaAGTCccAACTttCA GAaggaaa
C.Bre  tcagacgt ggtaggtttctt...347...aacactaccattcaattc-----taAGTCccAACTttCA GAaggcaa
C.Rem  ttcgacgt ggtaggtcaact...422...----ccattaaattcagttctcttAGTCccAACTttCA GAaggcaa
      * ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=199134 gene=F52F12.6 name=ztf-11 segment=chrI\_9905843\_9906110\_-1 type=IN VIEW

Figure 28: CS=5.52



```

C.Bri -----:---ataggcatgtattnaatgCGGGTgaatgacgttaattGGCCGTTAGCTtgcacgcgaaatcattctcc...48...ctgaaatggaacatittca
C.Bre -----:---ctaggcatgtattnaatgCGGGTgaatgacgttaattGGCCGTTAGCTtgcacgcgaaatcattttcc...50...tgaaaggatacattttca
C.Jap gcgtatgtttgatgCGgatattcaccttgagttaaagt:---:aattaggcatgtattnaatgCGGGTgaatggttttaattGGCCGTTAGCTtgcacgcgaaagcatacttc...50...ctgaaagaagacatttgca
C.Rem -----:---ttaggcatgtattnaatgCGGGTgaatgacgttaattGGCCGTTAGCTtgcacgcgaaataattctcc...49...ctgaaagggtcacattttca
          *****

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

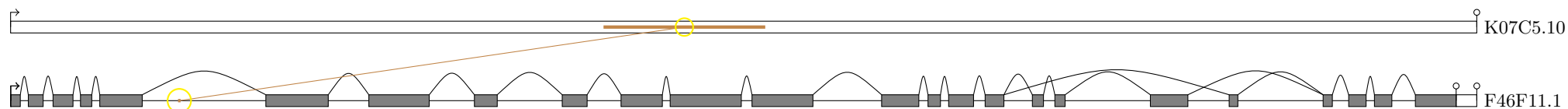
```

C.Bri gtagttc--aa---gggaaaagg-----...542...-gagagagagcgacgaaatccAGTTAAACGGTCCgcgcaggagaaaaagaagg...358...tcagatgtccgtatttttga
C.Bre gtagttc--aactttgggag-----...573...aaagagaaaa-aacgaaatccAGTTAAACGGTCCgcgcaggagaaaggcacttc...479...acagatgttcgagcttctcga
C.Jap gtgagttctgaatatttatg-----...2271...-tttcgcacgacacgaaatccAGTTAAACGGTCCgcgcacttcactttttttag...196...tcagatgtacgcatttttcca
C.Rem gggag-----gaaagggtccccctg...522...agagagaaaa-aacgaaatccAGTTAAACGGTCCgcgcaggcaaaagaaggca...343...tcagatgttcgtgtccttga
* ** * * **

```

id=46653 gene=Y45F10B.10 name=qui-1 segment=chrIV.13563092.13565173.1 type=IN

Figure 29: CS=5.52



```

C.Bri -----atagccatgtatattaatgcggtgaatgacGTTAATTGGcCGTTaGCTTgcatgcgaaatcattctcca...47...ctgaaatggaaacattttca
C.Bre -----ctagccatgtatattaatgcggtgaatgacGTTAATTGGcCGTTaGCTTgcatgcgaaatcattttcca...49...ttgaaaggatacattttca
C.Jap gcgtatgttgtgatgcgatattcaccttgagttaaagt:::atgaaattagccatgtatattaatgcggtgaatgttttaATTGGcCGTTaGCTTgcatgcgaaagcacttct...49...ctgaaagaagacatttgca
C.Rem -----ttagccatgtatattaatgcggtgaatgacGTTAATTGGcCGTTaGCTTgcatgcgaaataattctcca...48...ctgaaagggtcacattttca
*****

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

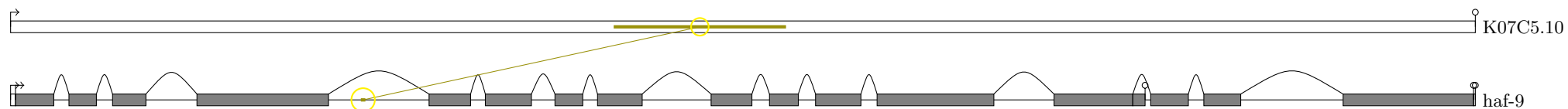
```

C.Bri tcagaaaggtatattgaca...170...tagggaacgatgtccatcaaAGGCaaAAACGTCAAATcaTGGCcatgtgagtgtggaaataaa...276...atTTTTTC--cagataaataa
C.Bre ttcgaaaggtaatagaaaag...135...tagggaacgatgtccatcaaAGGCaaAAACGTCAAATcaTGGCcatgtgagtgcgtagagt...535...--gaatttcttcagatcaataa
C.Jap ttagaaaggtgatagggga...1615...tagggaacaatgtccatcaaAGGCaaAAACGTCAAATcctggcatgtgagtgtcaaa-----...339...ctgatttc--cagatcaataa
C.Rem ttcgaaaggtattatgaagg...125...tagggaacgatgtccatcaaAGGCaaAAACGTCAAATcaTGGCcatgtgagtgtgtagatttga...273...aacaatctc--cagattaacaa
* ***** * ***** ***** ***** ***** * * * * *

```

id=179549 gene=F46F11.1 name=F46F11.1 segment=chrI\_5628592\_5629910\_1 type=IN

Figure 30: CS=7.12



```

C.Bri -----:attagataggcatgtatattaatgCGGGTgaatgacgTTAATTTGGccGTTTAgcTTGCatgcgaaatcattctccatc...45...ctgaaatggaacattttca
C.Bre -----:gtc---taggcatgtatattaatgCGGGTgaatgacgTTAATTTGGccGTTTAgcTTGCatgcgaaatcattttccact...47...ttgaaagggatacattttca
C.Jap  gcgtatgTgttgatgcggatattcaccttgagTtaaagt:---:atgaaataggcatgtatattaatgCGGGTgaatgTtttTAATTTGGccGTTTAgcTTGCatgcgaaagcatacttctat...47...ctgaaaagaagacattttca
C.Rem  -----:ttagcatgtatattaatgCGGGTgaatgACGTTAATTTGGccGTTTAgcTTGCatgcgaaataattctccact...46...ctgaaagggTcacattttca
*****
** * *
*****

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330.-1 type=EN

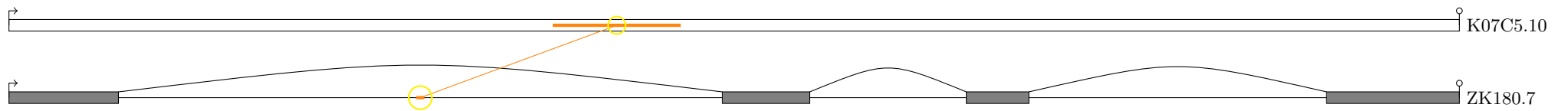
```

C.Bri  ctcgttgagtaagttataat...52...atcatgattcatcaagagtaGCAAATAAACCTAAATcatatggcgtga-gagttgaa---...178...gaaacagttcaggtcgtgtc
C.Bre  ttcattaagtgagtttgaga...51...tgaaagcgtaatcaagagtaGCAAATAAACCTAAATcatttggcgt---tgctgTggggg--...200...tggatttttaggtcgtgtc
C.Jap  ttctctcagtaagtttgata...44...atgagatgttatcaagagtaGCAAATAAACCTAAATcatttggcga---gagtcgaacc--...147...tttcttttcaggtcgcgtt
C.Rem  ctcctcagtaagtttcaaa...46...atcatgattaatcaagagtaGCAAATAAACCTAAATcATGTggcgtgaagagttgaactcg...184...aaattacttcaggtcaggtc
** * ** * *
* * *****
*
** ***** **

```

id=118594 gene=ZK484.2 name=haf-9 segment=chrI\_6082704\_6082989-1 type=IN

Figure 31: CS=5.2



```

C.Ele -----ggcatgtatattaatgcggtggtgatgatttagttcAGCCGtTTAGCTTGcatgcAAAattattttctat...48...ctgaaattggtta cattttca
C.Bri -----ggatagcatgtatattaatgcggtggaatgacgttaattGGCCGtTTAGCTTGcatgcgaaatcattctccat...46...ctgaaatggaaa cattttca
C.Bre -----tagcatgtatattaatgcggtggaatgacgttaattGGCCGtTTAGCTTGcatgcgaaatcattttccac...48...ttaaaggata cattttca
C.Jap gcgtatgttgttgatcggatattcaccttgagttaaagt:::aattagcatgtatattaatgcggtggaatgttttaattGGCCGtTTAGCTTGcatgcgaaagcatacttcta...48...ctgaaaagaaga catttgca
***** ** * * * ***** ** * * * ***** **

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

```

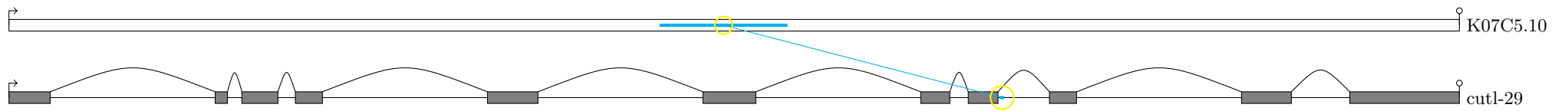
C.Ele cgaatatg gtaaatcttctt...1130...gtctcttctcttcttctcatCAGGcCTAAttCGGCTcgacaacttttctgtcgcag...1877...aaaatcttcag atgtgcta
C.Bri ataatatg gttagtttatca...862...ctcctgctgtttcttctcatCAGGcCTAAttCGGCTcgacaacttttctgtgtaag...1005...tataattttcag aagtgcta
C.Bre ctaatatg gtatgctcttat...955...cttcttctcttcatctcatCAGGcCTAAttCGGCTcgacaacttttctgtgtcac...900...aggaattttcag atgtgcta
C.Jap ctgatatg gttagtttctt...381...agcgtgctatagttgctcatCAGGcCTAAttCGGCTcgacaacttttctgttcag...1950...tttcttcttcag atgtgcta
***** ** * * * ***** ** * * * ***** **

```

id=64241 gene=ZK180.7 name=ZK180.7 segment=chrIV\_4490719\_4493805\_1 type=IN

Figure 32: CS=6.2





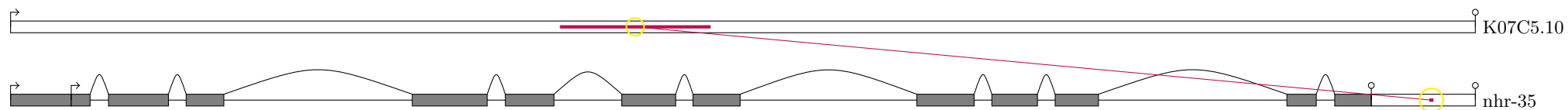
|       |                   |                  |                                       |            |             |                      |                      |                   |          |       |
|-------|-------------------|------------------|---------------------------------------|------------|-------------|----------------------|----------------------|-------------------|----------|-------|
| C.Ele | -----gtatcatt     | aattgatggcatgtat | ttaaatgcgggtggatgattttagttcagccgttta  | GCTTGCATGC | AAAT        | tattttctattgaagat    | ttt...38...ctgaaattg | gta               | cattttca |       |
| C.Bri | gaataactaattttatt | agg-ataggcatgtat | ttaaatgcgggtgaatgacgttaaatttgg        | CCGTTT     | agCTTGCATGC | gAAAT                | cattctccatcgaagaatac | ...36...ctgaaatgg | aaa      |       |
| C.Bre | -----gttcagtt     | ttgtctaggcatgtat | ttaaatgcgggtgaatgacgttaaatttggcgg     | TTTA       | gCTTGCATGC  | gAAAT                | cattttccactgaagaaatc | ...38...tgaaagg   | gata     |       |
| C.Rem | -----attttact     | aggtttaggcatgtat | ttaaatgcgggtgaatgacgttaaatttggccgttta | GCTTGCATGC | gAAATA      | attctccactgaagaataca | ...36...ctgaaagg     | gtca              | cattttca |       |
|       | * * *             | *****            |                                       |            |             |                      | * * * * *            | *****             | * *      | ***** |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

|       |          |                     |   |          |       |
|-------|----------|---------------------|---|----------|-------|
| C.Ele | acgtctAT | TTGCATatGTAAGC      | -----aaggaaaaaaaaaagaaagaaa...110...acatgtcaa-ttc | gttttaag |       |
| C.Bri | acgtctAT | TTGCATatGTAAGAAGCGG | ggaaaaagagaaataaatgg...108...aatgtagtacct         | attttaag |       |
| C.Bre | acgtctAT | TTGCATatGTAAGTGAA   | --gaaggaagaaatagaaatc...97...acatgtcaa-ttc        | gttttaag |       |
| C.Rem | acgtcTAT | TTGCATatGTAAGC      | -----aagaaaaaaaaacacgaagga....59...-catgtcaat     | ttt      |       |
|       | *****    | *****               | ** * *  | ****     | ***** |

id=246538 gene=F13B9.6 name=cutl-29 segment=chrX.8265278.8265433.-1 type=IN

Figure 33: CS=5.52



```

C.Bri -----gaataactaattttattagg-----ataggcatgtatattaatgcgggtgaatgacGTTAAattTGGCGTTTagcttgc atgcgaaatcatt...52...ctgaaatggaacat
C.Bre -----gttcagttttgt-----ctaggcatgtatattaatgcgggtgaatgacTAAattTGGCGTTTagcttgc atgcgaaatcatt...54...ttgaaagggatacat
C.Jap gcgtagttgttgatgcggatattcaccttgagttaaagtactatTTtaattctgaaatagtcattttattcaacgtgaataacctcggtatgaaataggcatgtatattaatgcgggtgaaTGTTTTAAattTGGCGTTTagcttgc atgcgaaagcata...54...ctgaaaagaagacat
C.Rem -----atTTtactaggt-----ttaggc atgtatattaatgcgggtgaatgacTAAattTGGCGTTTagcttgc atgcgaaataatt...53...ctgaaagggtcacat
                ** *                               *****                               *****                               **

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

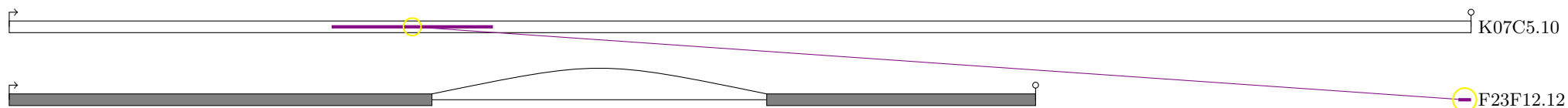
```

C.Bri attcctaataattcaaaaa...114...attattactcgttttcctgg--AAATGCCATTGAT----ttaaattcaa--aacgggtgt...139...tcatgaatcttctaactttt
C.Bre actcatagtacttaactcat...98...gttacttcaagtcctcctga--AAATGCCATTGA-----aacaccaactgaacgggtat...89...tcatgaatctttgacctac
C.Jap actcatagtagccagcaatt...190...--ctttgatagtcaacttgaaaAAATGCCATTGAAAGTAccaaa--caacgggtaaatcca...133...taataacccttttctctcca
C.Rem attcttgattttttctcaca...93...gttattaaaactccctatga--AAATGCCATTGA-----aacaccaacgggtgacttct...90...tcatgaatctttgatctga
* * *                               * * ** ***** ** ** * * * * *

```

id=251276 gene=C07A12.3 name=nhr-35 segment=chrX.4537231.4537506.1 type=E3

Figure 34: CS=5.2



```

C.Bri -----gaataactaattttatt-----aggataggcatgtATTTaaTGCGGgTGAAtgacgtaatttggccggtt-----...72...ctgaaatggaacattttca
C.Bre -----gttcagttttgtc-----taggcatgtATTTAaTGCGGgTGAAAGACGttaatttggccggttagctt...69...ttgaaaggatacattttca
C.Jap gcgatggtggtgatcggatattcaccttgagtaaagtactatTTAaTGCGGgTGAAtgTTTTaatttggccggtt-----...74...ctgaaagaagacatttgca
C.Rem -----atTTAaTGCGGgTGAAtgacgtaatttggccggtt-----...73...ctgaaagggtcacattttca
                ****                               *****                               *****                               ***** *

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

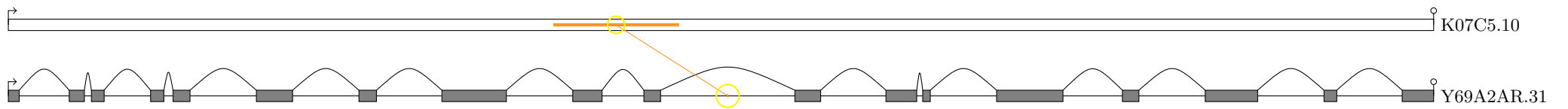
```

C.Bri ggtgagcgtttttgggatt---...1297...--tctcaacaaaacgcaattt---TTCAGTCGCAacAAATcgga
C.Bre --tgagtaattttctgtttgt...416...ataattgctcagaatataatTGTttTTCAGTCGCAaTAAATccga
C.Jap --taattcattttcattttt...1722...accctaattacttttcaat-----TTCAGCGCAacAAATcgga
C.Rem ggtaagggtttgatgaataa---...1212...-ctattaat-gtattgatattt---TTCAGTCGCAacAAATctga
                * * **                               **                               ***** ***** ***** **

```

id=189599 gene=F23F12.12 name=F23F12.12 segment=chrIII\_6508736\_6509131\_1 type=IN

Figure 35: CS=6.56



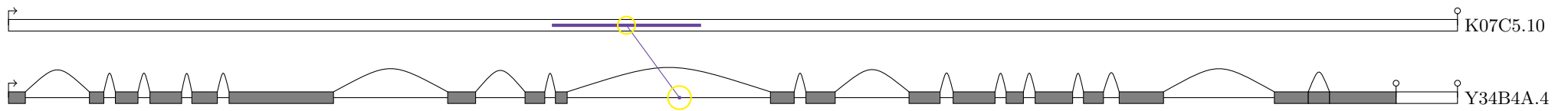
|       |                |                  |                |               |               |                 |                          |          |
|-------|----------------|------------------|----------------|---------------|---------------|-----------------|--------------------------|----------|
| C.Ele | -----gtatcatt  | aattgatggcatgtat | taatgcgggtggat | gattttagttcag | CCGTTTAGcTTGC | atgcaaaattatttt | ctatt...47...ctgaaattgta | cattttca |
| C.Bri | gaataactaatttt | agg-atagcatgtat  | taatgcgggtgaat | gacgttaatttg  | CCGTTTAGcTTGC | atgcaaaattatttt | ctatt...45...ctgaaattgta | cattttca |
| C.Bre | -----gttcagtt  | ttgtctagcatgtat  | taatgcgggtgaat | gacgttaatttg  | CCGTTTAGcTTGC | atgcaaaattatttt | ctatt...47...ttgaaaggata | cattttca |
| C.Rem | -----athttact  | aggtttagcatgtat  | taatgcgggtgaat | gacgttaatttg  | CCGTTTAGcTTGC | atgcaaaattatttt | ctatt...46...ctgaaaggata | cattttca |
|       | * * *          | *****            |                |               |               | *** ** *        | *****                    | **** * * |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195\_10351330.-1 type=EN

|       |           |   |               |                         |                    |          |
|-------|-----------|---|---------------|-------------------------|--------------------|----------|
| C.Ele | gcggagcc  | cgtaaaatttt...784...--ggcattcttacgcccgaaa-    | GCAAtCTAAATGG | aaaaaaagatgcacaaaa...   | 812...gtaaaatttaca | ggaataa  |
| C.Bri | acggcgcc  | cgtaaaattctg...1556...ttgtcattcttacg--ccgaaa- | GCAAtCTAAATGG | aaaaagagagaaaggaaaag... | 314...tgatgaattcca | ggaaatga |
| C.Bre | gcggcgctc | cgtaaaattctg...979...--acgcccgagaccgcaaa-     | GCAAtCTAAATGG | aaaaaagagagagagagaga... | 712...gttaatttaca  | ggaatga  |
| C.Rem | gcggcgcc  | cgtaaaattctg...944...ttgtcattcttacg--ccgaaa-  | GCAAtCTAAATGG | aaaaaaagaaaagagagaaa... | 1944...tattactttca | ggaatga  |
|       | *** * *   | *****   | * * *         | *** ** *                | *****              | * * *    |

id=97718 gene=Y69A2AR.31 name=Y69A2AR.31 segment=chrIV.2655599\_2657271.-1 type=IN

Figure 36: CS=6.2



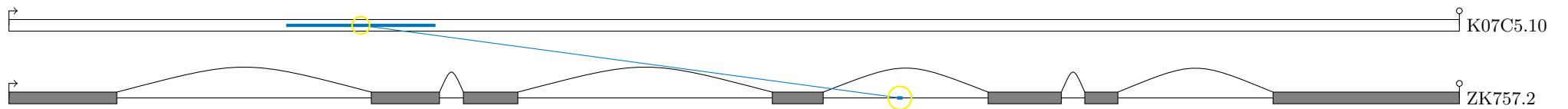
|       |                   |                        |                        |            |            |                         |                         |              |              |          |
|-------|-------------------|------------------------|------------------------|------------|------------|-------------------------|-------------------------|--------------|--------------|----------|
| C.Ele | -----gtatcatt     | aattgatggcatgtatttaatg | cggggtggatgattttagttca | GCCGTTAGct | TGCA       | tgcaaaattattttctattg... | 46...                   | ctgaaattggta | cattttca     |          |
| C.Bri | gaataactaattttatt | agg-ataggcatgtatttaatg | cggggtgaatgacgtta      | ATTtG      | GCCGTTAGct | TGCA                    | tgcaaaatcattctccatcg... | 44...        | ctgaaatggaaa | cattttca |
| C.Bre | -----gttcagtt     | ttgtctaggcatgtatttaatg | cggggtgaatgacgtta      | ATTtG      | GCCGTTAGct | TGCA                    | tgcaaaatcattttccactg... | 46...        | tgaaagggata  | cattttca |
| C.Rem | -----atcttact     | aggtttaggcatgtatttaatg | cggggtgaatgacgtta      | ATTtG      | GCCGTTAGct | TGCA                    | tgcaaaataattctccactg... | 45...        | ctgaaagggtca | cattttca |
|       | * * *             | *****                  | ****                   | ** *       | ** *       | *****                   | ****                    | ** *         | *****        | *****    |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330.-1 type=EN

|       |          |                       |                          |          |        |                             |           |               |          |
|-------|----------|-----------------------|--------------------------|----------|--------|-----------------------------|-----------|---------------|----------|
| C.Ele | actgcagg | taaattacaaaa...877... | ----ctcacctcgcaatctctctc | TGCGCTAA | ATGGC  | aaaatgcttctctgataacg----    | ...379... | -tctattttcagg | aacatcat |
| C.Bri | accgcagg | taagtacggat...888...  | tcatctcaattcgcaatctc---- | TGCGCTAA | ATGGCa | GAATgcttctctgataacgaaatt... | 389...    | -ccaaattctagg | aacttcat |
| C.Bre | acggcagg | taaggaaatga...566...  | tcatctcacctcacaatctc---- | TGCGCTAA | ATGGCa | AAATgcttctctgataacgaaatt... | 366...    | gtttattat-agg | aacatcat |
| C.Rem | acagccgg | taagcatatggg...562... | tcatctcacctcgcaatctc---- | TGCGCTAA | ATGGCa | AAATgcttctctgataacgaaatt... | 361...    | -atctttttcagg | gacctctt |
|       | ** * * * | ***                   | ****                     | ** ***** | *****  | *****                       | *****     | * **          | ** * * * |

id=139357 gene=Y34B4A.4 name=Y34B4A.4 segment=chrX\_5267430\_5268763.1 type=IN

Figure 37: CS=5.52



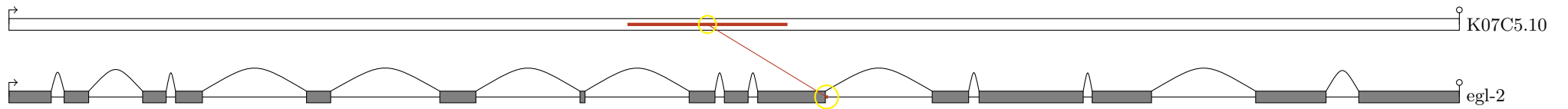
|       |                   |                   |                        |          |   |          |
|-------|-------------------|-------------------|------------------------|----------|---|----------|
| C.Ele | -----gtatcatt     | aattgatggcatgtatt | <b>AATGcgGGTGaATGA</b> | at       | tttagttcagccgtttagc...71...ctgaaattggta | cattttca |
| C.Bri | gaataactaattttatt | agg-ataggcatgtatt | <b>AATGcgGGTGaATGA</b> | cg       | ttaatttggccgtttagc...69...ctgaaatggaaa  | cattttca |
| C.Bre | -----gttcagtt     | ttgtctaggcatgtatt | <b>AATGcgGGTGaATGA</b> | cg       | ttaatttggccgtttagc...71...tgaaagggata   | cattttca |
| C.Rem | -----at           | tttact            | <b>AATGcgGGTGaATGA</b> | cg       | ttaatttggccgtttagc...70...ctgaaagggtca  | cattttca |
|       | * * *             |                   | *****                  | *** ** * | *****                                   | *****    |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

|       |          |   |                     |                 |  |          |
|-------|----------|---|---------------------|-----------------|--|----------|
| C.Ele | agctcata | gatcttgaacag...105...gaattcccaacgggaccat  | <b>TTATCACCTATT</b> | ctc             | tgggtgtcgcacccccg...143...atttcccaata    | attataaa |
| C.Bri | aactcatc | gatcttgaacag...138...cctagtcccaacgggaccat | <b>TTATCACCTATT</b> | ctc             | ggtgtgtcgcacatctgcg...124...agatcaatgata | ataataca |
| C.Bre | aactcatc | gatcttgaacag...123...caactcccattgggaccat  | <b>TTATCACCTATT</b> | ctc             | ggtgtgtcgccttggcg...166...acagaatcgtt    | attgtgaa |
| C.Rem | aactcatc | gatcttgaacag...103...caatgtcccgaaggaccat  | <b>TTATCACCTATT</b> | ctc             | ggtgtgtcgcacatctggc...212...tctcccctcta  | atatccta |
|       | * *****  | ***** **                                  | *****               | ***** * ***** * | *****                                    | * **     |

id=67517 gene=ZK757.2 name=ZK757.2 segment=chrIII\_9875005\_9875328\_-1 type=IN

Figure 38: CS=5.8



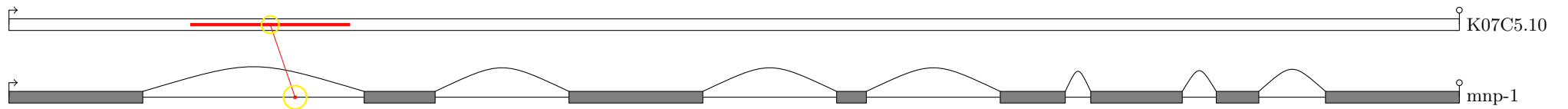
|        |               |                  |          |       |         |        |        |        |            |        |       |            |            |            |             |       |       |             |             |             |       |          |          |          |
|--------|---------------|------------------|----------|-------|---------|--------|--------|--------|------------|--------|-------|------------|------------|------------|-------------|-------|-------|-------------|-------------|-------------|-------|----------|----------|----------|
| C. Ele | -----gtatcatt | aattgatggcatgtat | taaatg   | cggg  | tgatgat | tttag  | ttagc  | ccggtt | AGCTTGCATG | ca     | AAAT  | tatttt     | cattg      | aagatt     | ttt...38... | ctgaa | attg  | gta         | cattttca    |             |       |          |          |          |
| C. Bri | gaataacta     | attttatt         | agg-atag | gcatg | tat     | taaatg | cggg   | tgaatg | acgtta     | aattt  | ggccg | ttt        | AGCTTGCATG | gc         | GAAAT       | cattt | cctc  | gaaga       | aac...36... | ctgaa       | atgg  | aaa      | cattttca |          |
| C. Bre | -----gttcagtt | ttgtctag         | gcatg    | tat   | taaatg  | cggg   | tgaatg | acgtta | aattt      | ggccg  | ttt   | AGCTTGCATG | gc         | GAAAT      | cattt       | cactc | gaaga | aac...38... | ttgaa       | agg         | gata  | cattttca |          |          |
| C. Rem | -----at       | tttact           | aggttt   | ag    | catg    | tat    | taaatg | cggg   | tgaatg     | acgtta | aattt | ggccg      | ttt        | AGCTTGCATG | gc          | GAAAT | aattt | cactc       | gaaga       | aac...37... | ctgaa | agg      | gtca     | cattttca |
|        | * * *         |                  |          |       |         |        |        |        |            |        |       |            |            |            |             |       |       |             |             |             |       |          |          |          |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

|        |       |         |        |         |       |       |       |       |       |       |        |       |       |       |     |     |     |     |     |    |     |     |     |      |
|--------|-------|---------|--------|---------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-----|-----|-----|-----|-----|----|-----|-----|-----|------|
| C. Ele | a     | TTTCATG | TAAGTT | tatgatg | taaga | ataat | ttt   | tcgaa | gctt  | gttt  | gatctt | ::::: | ttaa  | agag  | aaa | atg | tta | act | aga | at | ttc | agc | act | tact |
| C. Bri | a     | TTTCATG | TAAGTT | tttt    | ----- | tcatt | cctt  | cac   | agt   | acca  | ata    | agatt | ::::: | ----- | at  | ttc | agc |     |     |    |     |     | tct | tact |
| C. Bre | a     | TTTCATG | TGAGTT | tttg    | ----- | ttc   | atc   | ct    | ggg   | ct    | ggct   | ctct  | ::::: | ----- | ttt | cc  | agc |     |     |    |     |     | cct | tact |
| C. Rem | a     | TTTCATG | TGAGTT | t       | ----- | ----- | ----- | ----- | ----- | ----- | -----  | ::::: | ----- | ----- | ttc | agc |     |     |     |    |     |     | att | tact |
|        | ***** |         |        | *       | ***** |       |       |       |       |       |        | ::::: | ----- |       |     |     |     |     |     |    |     |     |     |      |

id=104749 gene=F16B3.1 name=egl-2 segment=chrV.1292489.1293123.-1 type=IN VIEW

Figure 39: CS=9.64



```

C.Ele  gtatcatt aatt-----GATGGCATGtaTTTAaTGC GG GTGgatgattttagttcagccgtt...75...ctgaaattggta cattttca
C.Bri  gaataact aatTTTATtaGGATAgGCATGtaTTTAaTGC GG gtgaatgacgttaatttggc----.77...ctgaaatggaaa cattttca
C.Bre  gttcagtt ttgtctag-----GCATGtaTTTAaTGC GG gtgaatgacgttaatttggc----.79...ttgaaaggata cattttca
C.Rem  attttact aggtttag-----GCATGtaTTTAaTGC GG gtgaatgacgttaatttggc----.78...ctgaaagggtca cattttca
*      *      ***** ** * * * * *      *      ***** * * *****

```

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

```

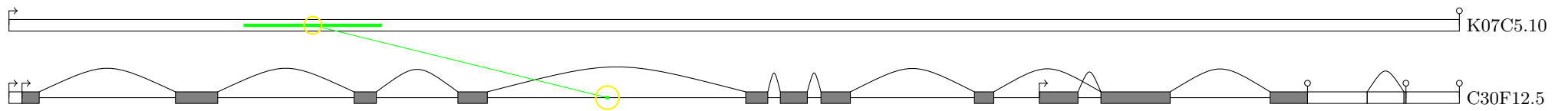
C.Ele  ctttgagg taaggaagtga...724...tccctgactcacacacacca----CCACgaCCGCATAAACATGTgTGTT-----tgtggaagaggagatgatgg...221...aaaatttcaga tcggtgaa
C.Bri  gttcgagg taggtattttg...260...-----acaccaccaccacga---tccgaCCGCATAAACATGTaTGTTTGTAAtcaggatgtattctacgaag...491...aattgttcagg tagttgaa
C.Bre  gttcgagg tgagtgggatac...522...-----ccaccaccagggtcccccCCGCATAAACATGT-----atgtttggatcag----atttg...1380...ttctattccagg tcgtcgaa
C.Rem  gtttgagg tgagatttgat...314...-----actcacaccacga---tccgaCCGCATAAACATGT-----atgtttggacgaa----ataa...261...ataaatttcaga tcggtgag
** **** * *      *      ***** *      ***** *      ***** *      *****

```

id=156629 gene=B0285.7 name=mnp-1 segment=chrIII\_4357094\_4358127\_1 type=IN

Figure 40: CS=6.4





```

C.Ele -----gtatcatt aattgatggcatgtATTTaATGCGGGTGgatgatttagttcagccgt...76...ctgaaattggta cattttca
C.Bri gaataactaattttatt agg-ataggcatgtATTTaATGCGGGTGaatgacgtaatttggccgt...74...ctgaaatggaaa cattttca
C.Bre -----gttcagtt ttgtctaggcatgtATTTaATGCGGGTGaatgacgtaatttggccgt...76...ttgaaagggata cattttca
C.Rem -----atthtact aggtttaggcatgtATTTaATGCGGGTGaatgacgtaatttggccgt...75...ctgaaagggtca cattttca
          * * *
          *****
  
```

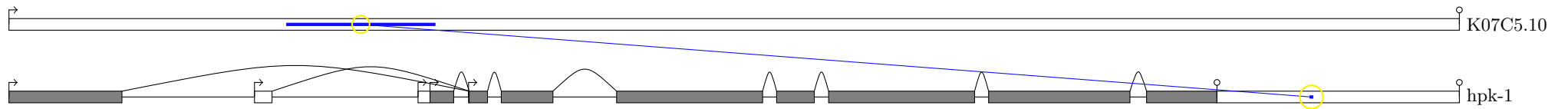
id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

```

C.Ele cacaacag gtaagagtttt...394...ccttccttgctcatttggcag--CGCCtgCGCATAAAATtgatggtaaataattgggcg...552...atcacatttcag ttggctac
C.Bri cacaacag gtgagaacatcg...994...--tccttgccttttggcagcaaCGCCtgCGCATAAAATtgatggtaaataattgggcg...254...tccgttttacag ttggctac
C.Bre cccaacag gtgagaaaatat...853...ccttccttgctcatttggcag--CGCCtgCGCATAAAATtgatggtaaataattgggcg...253...gttttttacag ttggccac
C.Rem cacaacag gtgaacttttga...841...ccttccttgctcatttggcag--CGCCtgCGCATAAAATtgatggtaaataattgggcg...608...gacaatttcag ctggctac
* ***** ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  
```

id=111920 gene=C30F12.5 name=C30F12.5 segment=chrI.6994372.6995396.-1 type=IN

Figure 41: CS=5.52



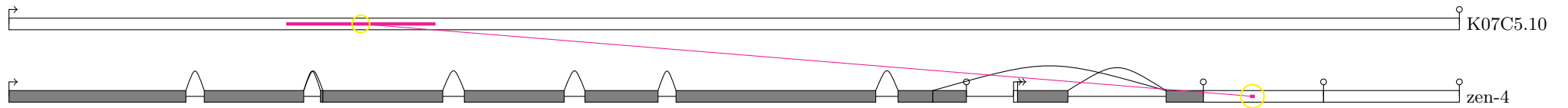
|       |                   |                    |             |                    |  |  |          |
|-------|-------------------|--------------------|-------------|--------------------|--|--|----------|
| C.Ele | -----gtatcatt     | aattgatggcatgtatt  | <b>AATG</b> | <b>GGGTG</b>       | <b>ATGATT</b>                            | ttagttcagccgtttagctt...69...ctgaaattggta | cattttca |
| C.Bri | gaataactaattttatt | agg-atagggcatgtatt | <b>AATG</b> | <b>GGGTGAATGAC</b> | gtaatttggccgtttagct-...68...ctgaaatgaaa  | cattttca                                 |          |
| C.Bre | -----gttcagtt     | ttgtctagggcatgtatt | <b>AATG</b> | <b>GGGTGAATGAC</b> | gtaatttggccgtttagct-...70...tgaaaggata   | cattttca                                 |          |
| C.Rem | -----atatttact    | aggtttagggcatgtatt | <b>AATG</b> | <b>GGGTGAATGAC</b> | gtaatttggccgtttagct-...69...ctgaaagggtca | cattttca                                 |          |
|       | * *               |                    |             | *****              | *** ** *                                 | *****                                    | **** * * |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

|       |          |  |                |                  |   |          |       |
|-------|----------|--|----------------|------------------|---|----------|-------|
| C.Ele | ttaactaa | tcacttcattgc...275...tgatggtgtttgattg-tcc  | <b>AGTCATg</b> | <b>CGCCCCATT</b> | ccacgaacgctactaagtta...780...aatggcgttcg--a | aatttctt |       |
| C.Bri | ataactaa | tcacttcattgc...268...-gatggtgtttgattt-tcca | <b>GTCATTG</b> | <b>CGCCCCATT</b> | ccactagcgctactaagta...659...attggcgtgcg--a  | atcttgtc |       |
| C.Bre | tcaattaa | tcacttcattgc...236...-gatggtgtttgatta-tcca | <b>GTCATTG</b> | <b>CGCCCCATT</b> | ccactagcgctactaagta...589...attggcgttcg--a  | tgtttag  |       |
| C.Rem | tcaattaa | tcacttcattgc...215...-atggtgtttgattgtcca   | <b>GTCATTG</b> | <b>CGCCCCATT</b> | ccactagcgctactaagta...643...-tggcgtcgcgata  | aatttctt |       |
|       | ** **    | *****                                      |                | *****            | *****                                       | *****    | ** ** |

id=87643 gene=F20B6.8 name=hpk-1 segment=chrX.4210551.4211685.-1 type=E3

Figure 42: CS=5.52



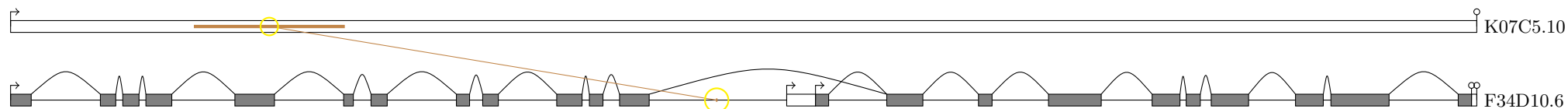
|       |                   |                   |                 |  |           |
|-------|-------------------|-------------------|-----------------|--|-----------|
| C.Ele | -----gtatcatt     | aattgatggcatgtatt | AATGcGGGTggATGA | ttttagttcagccgtttagc...71...ctgaaattggta | cattttca  |
| C.Bri | gaataactaattttatt | agg-ataggcatgtatt | AATGcGGGTgaATGA | cgtaatttggccgtttagc...69...ctgaaatggaaa  | cattttca  |
| C.Bre | -----gttcagtt     | ttgtctaggcatgtatt | AATGcGGGTgaATGA | cgtaatttggccgtttagc...71...tgaaaggata    | cattttca  |
| C.Rem | -----attttact     | aggtttaggcatgtatt | AATGcGGGTgaATGA | cgtaatttggccgtttagc...70...ctgaaagggtca  | cattttca  |
|       | * * *             | *****             | *** ** *        | *****                                    | ***** * * |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

|       |             |  |                |   |             |
|-------|-------------|--|----------------|---|-------------|
| C.Ele | ---taattata | agtgccgtcttt...77...taatttattatg---tttctcat-   | TCATaATCCCATTT | ttccgaa--ctcgaagagaact...147...gtattttaattt | taattaa---  |
| C.Bri | taaaaatcaac | aaggtcacc---...184...----acattttgagcatcattcat- | TCATaATCCCATTT | ttc-aaaatctcaaagagcac-...147...ttttaccaagct | t--tccaaag- |
| C.Bre | ---tgagctga | agacgttcctct...172...--acatataccg--atcatcatt   | TCATaATCCCATTT | ctcaaaaatctcaaagagcg--...177...--cagcatgtc  | cttgcacact  |
| C.Rem | ---agatcgaa | ggctccaccatc...161...-cgtacataccg--atcatcatt   | TCATaATCCCATTT | ttc-aacatctcaaagagcac-...156...ttataataattt | c--ttggtgt- |
|       | *           | * * * * *                                      | *****          | * * * * *                                   | * *         |

id=270030 gene=M03D4.1 name=zen-4 segment=chrIV\_6121426\_6121726.1 type=E3

Figure 43: CS=5.8



```

C.Ele  gtatcatt aattg-----atg-GCATGtaTTTAATGCCgggtggatgattttagttcag...80...ctgaaattggta cattttca
C.Bri  gaataact aatthttattagg-ataGGCATGtaTTTAaTGCCgggtgaatgacgttaatttg...78...ctgaaatggaaa cattttca
C.Bre  ----- -gttcagttttgtctaGGCATGtaTTTAaTGCCgggtgaatgacgttaatttg...80...tgaaggata cattttca
C.Rem  ----- -atthtactaggtttaGGCATGtaTTTAaTGCCgggtgaatgacgttaatttg...79...ctgaaagggtca cattttca
      **          * ***** ** * * * * *          * * *****
  
```

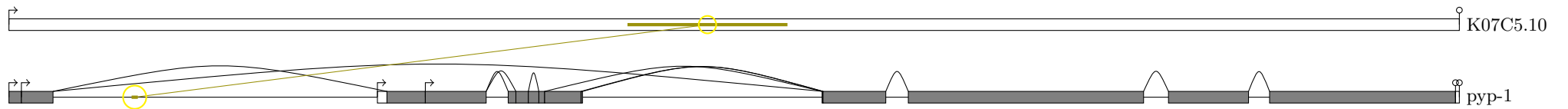
id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV.10351195.10351330.-1 type=EN

```

C.Ele  ttttgatc caggtgagcaat...442...ctattgaaaacttgtaaaagTGCATTAAACGTGC-aatttcatagactcac-gaca--...969...ctataaatattc cagatggc
C.Bri  ttttgatc caggtgagtcaa...1748...aagatgagaactcgcaaaagTGCATAAACGTGCCaacgtcttcaattcgagac---...1021...tcataaatattc tgaatagt
C.Bre  tttcgatc caggtgagtcaa...552...tgaatgaaaacttgcaaaaTGCATAAACGTGCC---gtcttcaattcgtagact...846...tcataaatattc cagatagt
C.Rem  ctttgatc caggtgagtcaa...832...attgtgaagactcgcaaaagTGCATAAACGTGCCgtctccttcaattcgtagac---...966...tcataaatattc tgaatagt
      ** **** ***** *          *** ** * ** * * * * ***** * * * * * ***** ** *
  
```

id=302278 gene=F34D10.6 name=F34D10.6 segment=chrIII.3752616.3754104.-1 type=IN

Figure 44: CS=6



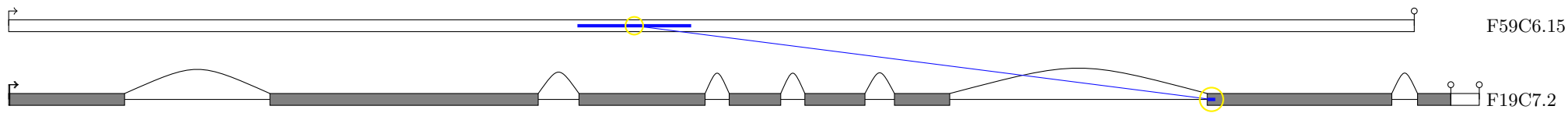
|       |                   |   |                         |   |          |
|-------|-------------------|---|-------------------------|---|----------|
| C.Ele | -----gtatcatt     | aattgatggcatgtatattaatgcggtggatgatttagttca        | GCCGTtAGCTtGCATGcAAAAAT | tattttctattgaagatttt...38...ctgaaattgga   | cattttca |
| C.Bri | gaataactaattttatt | agg-ataggcatgtatattaatgcggtgaatgacgttaattggccgttt | AGCTtGCATGcGAAAT        | catttctccatcgaagaatac...36...ctgaaatggaaa | cattttca |
| C.Bre | -----gttcagtt     | ttgtctaggcatgtatattaatgcggtgaatgacgttaatttg       | GCCGTtAGCTtGCATGcGAAAT  | cattttccactgaagaatac...38...ttgaaaggata   | cattttca |
| C.Rem | -----atcttact     | aggtttaggcatgtatattaatgcggtgaatgacgttaattggccgttt | AGCTtGCATGcGAAAT        | aatttctccactgaagaatac...37...ctgaaagggtca | cattttca |
|       | * * *             | *****   | *** ** *                | *****                                     | **** * * |

id=272214 gene=K07C5.10 name=K07C5.10 segment=chrV\_10351195\_10351330\_-1 type=EN

|       |          |  |              |                      |   |            |
|-------|----------|--|--------------|----------------------|---|------------|
| C.Ele | atcttttg | ctacgaggttg...124...-----tagctgaggttg  | cgctctgc     | ATTTTCATGTAGTTtGTGGT | gtgatgtgtgtgtacactgc...642...atctcacaatg      | tctgtagt   |
| C.Bri | gtatcttg | ccacgaggtatg...108...ttcaacttagct----- | cgtacgc      | ATTTTCATGTAGTTt      | tctgacgtgtagtgtgtaaa-----...667...atctcacaatg | tctgtagt   |
| C.Bre | attctctg | cgacaaggttg...124...-----ttgattattctt  | ggccgc       | ATTTTCATGTAGTTt      | GTGGTgtgtgtgtgtaaacactat...640...atctcagaata  | tccgtagt   |
| C.Rem | atcttttg | ccacgaggttg...110...-----cctgctga-     | tgcgacgtacgc | ATTTTCATGTAGTTt      | tctgatgtgatgtgtgtaaa-----...648...atctcgcaatg | tctgtagt   |
|       | * * *    | * * * * * *                            | * *          | ** ***** **          | *** ***** *                                   | ***** * ** |

id=55717 gene=C47E12.4 name=pyp-1 segment=chrIV\_9997963\_9998812\_-1 type=IN

Figure 45: CS=6



```

C.Ele  ccatacta  tacagaatcatt...30...aattggtagagatgccaactGCGAtGAAAGGGAGAcgggcaggccgagcgtga-----...64...cttctgagcagt  tgtaaact
C.Bri  ccatacta  tacagaatcatt...30...aattggtagagatgccaactGCGAtGAAAGGGAGAcGAGCatggcgcgagcgtgaagcag...59...cttctgagcagt  tataataa
C.Bre  ccatacta  tacagaatcatt...30...aattggtagagatgccaactGCGAtGAAAggGAGACGggcatgccgagcgtgaaa---...63...cttctgagcagt  tttataaa
C.Rem  ccatacta  tacagaatcatt...30...attggtagagatgccaactGCGAtGAAAGGGAGAcgggcaagccgagcgtga-----...64...cttctgagcagt  tataataa
*****
*****
* *****
*****
*****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

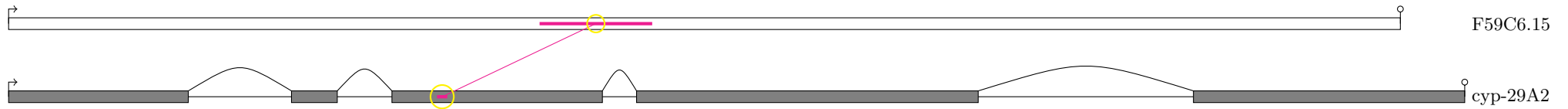
```

C.Ele  cacttgag  taagaataaacagaatgagaaaaatagggttac:::::taaacttttatagtagttttcaataatctaaatcacacaaTTCagT TTCtTCGc
C.Bri  cattggag  -----:::::-----GCTCtTTTTCagT TTCtTCGc
C.Bre  cacttgag  taagtgcagac-----:::::-----TGTTTCagT TTCtTCGc
C.Rem  cacttgag  ttgg-----:::::-----TTTTagT TTCtTCGc
** * **
*****
*****

```

id=14625 gene=F19C7.2 name=F19C7.2 segment=chrIV\_4601782\_4602261\_1 type=IN

Figure 46: CS=6.88



```

C.Bri ccatactatacagaatcatt...26...atcaaattggtagagatgccAACTGCGATgaAAGGGagacgagcatggcgcgagcg...67...cttctgagcagttatataaa
C.Bre ccatactatacagaatcatt...26...atcaaattggtagagatgccAACTGCGATgaAAGGGagacgggcatgccgagcg...68...cttctgagcagttttataaa
C.Jap ccatactatacagaatcatt...26...atcaaattggtagagatgccAACTGCGATgaAAGGGagacgggctgcgagcg...70...cctctgagcagttttgttt
C.Rem ccatactatacagaatcatt...26...atcaattggtagagatgccAACTGCGATgaAAGGGagacgggcaagccgagcg...67...cttctgagcagttatataaa
*****
*****
*****
*****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI.10516967.10517139\_-1 type=EN

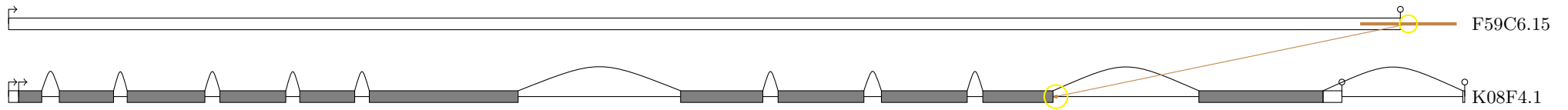
```

C.Bri aggtaagtgaacatgtac...105...-actgtagcagtcagtggttaTCCTTtagGTCGCtGGTTcgaatccggctcgacggaattctttttttgtttt-----cagatcttcccgcagt
C.Bre aagtaagtgatttttctct...96...gactgtag-agtcagtggttaTCCTTtagGTCGCtGGTTcgaatccggctcgacggaattcttttttacaact-----tttcagagctaccgcaat
C.Jap aagtaagtcgtaacgcaaa...574...gactgtag-agtcagtggttaTCCTTtagGTCGCtGGTTcgaatccggctcgacggaatttttttctcattttttgtgttgattt-----ttgcagatctctccgaaat
C.Rem aagtaagtttggtcgcagc...88...gactgtag-cgtcagtggttaTCCTTtagGTCGCtGGTTcgaatccggctcgacggaattctttttttctttttcatttctatgaaataatgtagttttgagtttcttccagacctccattcct
* **** *
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```

id=57094 gene=T19B10.1 name=cyp-29A2 segment=chrV.11218046.11218125\_1 type=IN

Figure 47: CS=7.4



|       |          |   |               |            |
|-------|----------|---|---------------|------------|
| C.Ele | ccatacta | tacagaatcatt...128...ttggagccgtagtggcctgc | TCTTcTGAGCAGT | TGT--aaact |
| C.Bri | ccatacta | tacagaatcatt...128...ttggagccgtagtggcctgc | TCTTcTGAGCAGT | TAtataaa-- |
| C.Bre | ccatacta | tacagaatcatt...129...ttggagccgtagtggcctgc | TCTTcTGAGCAGT | T-tttataa- |
| C.Rem | ccatacta | tacagaatcatt...128...ttggagccgtagtggcctgc | TCTTcTGAGCAGT | TAtataaa-- |
|       | *****    | *****                                     | ***** * ***** | * * * *    |

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

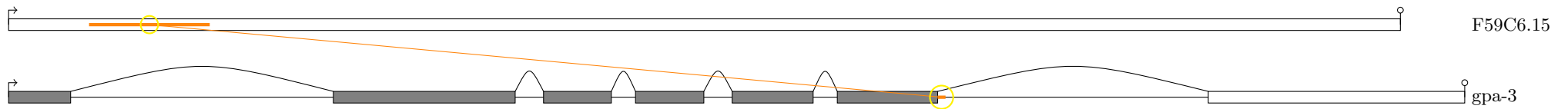
|       |           |       |       |                      |                     |                 |  |
|-------|-----------|-------|-------|----------------------|---------------------|-----------------|--|
| C.Ele | -aTGATTGC | TCA   | AAGG  | tttgtattattgttttaaat | taattttctttcattgcct | :::::-----      | taaaaattttcaga                               |
| C.Bri | -tTGATTGC | TCA   | AAGG  | -----                | tatttttcgaaagca     | -----ttctaggcct | :::::agggcctgcgagtattccaagtgagacaacaatttcaga |
| C.Bre | tt-GATTGC | TCA   | AAGG  | ctt                  | -----               | :::::-----      | -----  |
| C.Rem | -tTGATTGC | TCA   | AAGG  | -----                | -----               | :::::-----      | -----ga                                      |
|       | *****     | ***** | ***** | *****                | *****               | *****           | *****  |

id=138053 gene=K08F4.1 name=K08F4.1 segment=chrIV\_10122916\_10123364\_-1 type=IN

Figure 48: CS=6.32







```

C.Ele  ccatacta TACAGAtCATTCTGCAgtatgtatctcgttaattccc...123...cttctgagcagt tgtaaact
C.Bri  ccatacta TACAGAtCATTCTGCAgtatgtatctcgttaattccc...123...cttctgagcagt tatataaa
C.Bre  ccatacta TACAGAtCATTCTGCAgtatgtatctcgttaattccc...124...cttctgagcagt tttataaa
C.Jap  ccatacta TACAGAtCATTCTGCAgtatgtatctcgttaattccc...126...cctctgagcagt ttttgttt
*****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

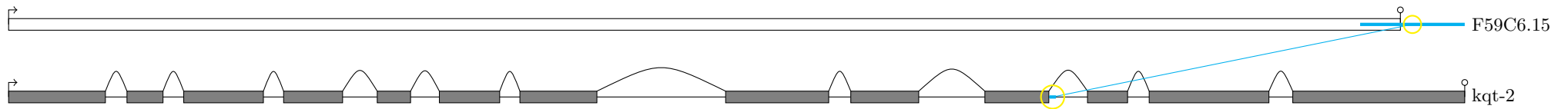
```

C.Ele  tGTActGA AATGTTGTGcctttctctctctctctctt...619...ttcttttgcttt caggcctc
C.Bri  tGTActGA AATGTTGTGcctttctctctcccctctct...438...ttttctgcttt caggcctc
C.Bre  tGTActGA AATGTTGTGcctttctctctcccctctct...143...ctttactgcttt caggcctc
C.Jap  tGTActGA AATGTTGTGcccatccctttcatgatctc...70...ttgattgtttt caggcttg
*****

```

id=62462 gene=E02C12.5 name=gpa-3 segment=chrV\_9357047\_9357707\_-1 type=I3

Figure 50: CS=5.12



```

C.Ele  ccatacta tacagaatcatt...128...-----ttggagccgtagtggcctgcTCTTcTGAGCAGT T-gtaaact
C.Bri  ccatacta tacagaatcatt...117...gctgattaatTTGGAGCCG TAGTGcCATGcTCTTctGAGCAGT T-atataaa
C.Bre  ccatacta tacagaatcatt...129...-----ttggagccgtagtggcctgcTCTTctGAGCAGT TTttataa-
C.Rem  ccatacta tacagaatcatt...128...-----ttggagccgtagtggcctgcTCTTctGAGCAGT T-atataaa
***** *****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI.10516967.10517139.-1 type=EN

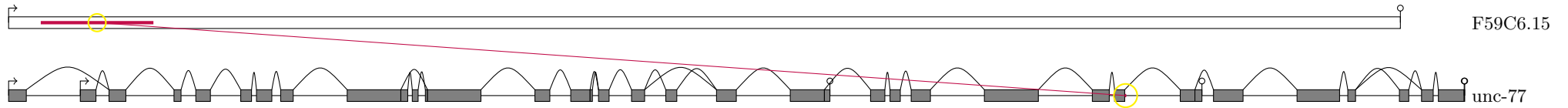
```

C.Ele  gAGCTtaG CTCaAAGG-----taaccaatctgggaggagttt--gctctggaagccacagggtcaaccttagcgcaggtgcattccttgcattttttt gtttcag
C.Bri  gAGCTgaG CTCcaAAGGTATGTGCTA-----agaaaagtTgcta-----cacaaag-----aatgaag-----tttacag
C.Bre  gAGCTgaG CTCcaAAGG--tgcgTgactaaaagaggtggagctctcgctcagcttttttcagaacatcccttaagcaggtgcattctct-ttcttttccc atttcag
C.Rem  gAGCTcaG CTCcaAAGGtatgcgTg-----agggcgcgcgcttgcaGc-----ttccaaagctgagcc--gaggcaggtgctttctct-tatttttctc atttcag
**** ** *** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=42349 gene=M60.5 name=kqt-2 segment=chrX.8243922.8244007.-1 type=IN

Figure 51: CS=5.8



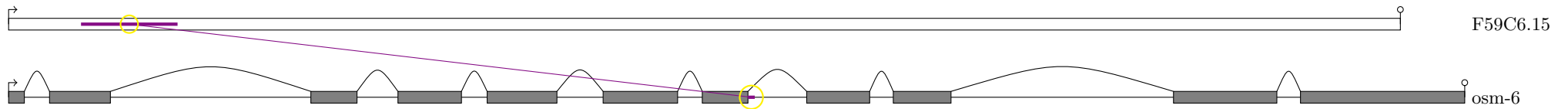
|        |          |             |   |           |
|--------|----------|-------------|---|-----------|
| C. Ele | ccaTACTA | TACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcagt | tgtaaact  |
| C. Bri | ccaTACTA | TACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcagt | tataataa  |
| C. Bre | ccaTACTA | TACagAATCAT | ttctgcagtatgtatctcgt...131...cttctgagcagt | tttataa   |
| C. Jap | cCATACTA | TACagAATCAT | ttctgcagtatgtatctcgt...133...cctctgagcagt | ttttgttt  |
| C. Rem | ccaTACTA | TACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcagt | tataataa  |
|        | *****    | *****       |   | * ***** * |

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI.10516967\_10517139\_-1 type=EN

|        |          |               |   |                              |                    |
|--------|----------|---------------|---|------------------------------|--------------------|
| C. Ele | gcATGATT | GTATGGTG      | -----agtgaactaccttgaaacTTTTATCAAA-----    | .....:aaaagtattttatctgtctatt | t-----tcagaga---   |
| C. Bri | gcATGATT | GTATGGTG      | -----                                     | .....:-----att               | t-----tcagaga---   |
| C. Bre | gcATGATT | GTATGGTG      | -----                                     | .....:-----taaactatt         | t-----tcagaga---   |
| C. Jap | gcATGATT | GTATGGTaaGTGG | ctgtgtttaaatcccagagttaaacacacctctggttaatt | .....:-----ttgggcaatt        | ttatggtatcaaaaaata |
| C. Rem | gcATGATT | GTATGGTA      | -----                                     | .....:-----gtctatt           | t-----tcagaga---   |
|        | *****    | *****         |   |                              | *** ** *           |

id=21079 gene=C11D2.6 name=unc-77 segment=chrIV.6160438\_6161006\_-1 type=IN

Figure 52: CS=6.3



|       |    |        |            |       |                |                 |              |           |   |
|-------|----|--------|------------|-------|----------------|-----------------|--------------|-----------|---|
| C.Ele | cc | ATACTa | TACAGAATCa | TTTCT | gcagtatgtatctc | gtaatt...126... | cttctgagcagt | tgtaaact  |   |
| C.Bri | cc | atacta | TACAGAATCa | TTTCT | gcagtatgtatctc | gtaatt...126... | cttctgagcagt | tatataaa  |   |
| C.Jap | cc | atacta | TACAGAATCa | TTTCT | gcagtatgtatctc | gtaatt...129... | cctctgagcagt | ttttgttt  |   |
| C.Rem | cc | atacta | TACAGAATCa | TTTCT | gcagtatgtatctc | gtaatt...126... | cttctgagcagt | tatataaa  |   |
|       |    | *****  | *****      |       |                |                 |              | * ***** * | * |

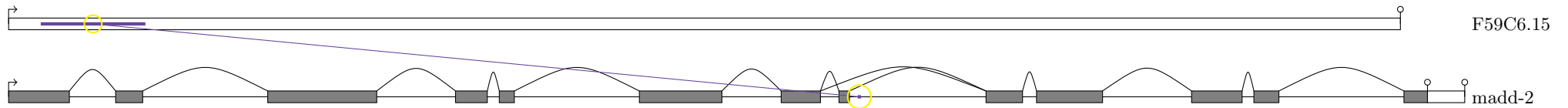
id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI.10516967.10517139\_-1 type=EN

|       |   |          |       |            |    |                |                |               |            |           |            |                |                      |           |          |
|-------|---|----------|-------|------------|----|----------------|----------------|---------------|------------|-----------|------------|----------------|----------------------|-----------|----------|
| C.Ele | g | GAAAGAT  | Tt    | TTGTAAGTGT | at | ttttgatatggttc | gaaataaacttccc | ggttggttgaggc | gtgcaggatg | cgctccacc | gcctctt--- | aactcgccttattg | gaaattcaatt          | tcaggata  |          |
| C.Bri | g | GAAAGAT  | Tt    | TTGTA      | -- | ggtctttttgat   | -----          | -----         | -----      | -----     | -----      | ttttt---       | gatttttcc-----       | atataaatt | tcaggata |
| C.Jap | g | GAAAGAT  | Tt    | TTGTA      | -- | agaaccctacat   | -----          | -----         | -----      | -----     | -----      | tctttcaaattttt | g---aacatttcc-----   | tctgct    | ttaggaca |
| C.Rem | g | GAAAGAT  | Tt    | TTGTG      | -- | agttgttt       | -----          | -----         | -----      | -----     | -----      | ctctcggaatact  | ctttcaaaaacttcc----- | tagttt    | ccaggaca |
|       |   | ** ***** | ***** | *          | *  |                |                |               |            |           |            | * * * * *      |                      | * * * * * | *        |

id=304915 gene=R31.3 name=osm-6 segment=chrV.11925867.11925978\_-1 type=IN

Figure 53: CS=5.64





```

C.Ele  ccatACTA TACAgAATCATTtctgcagtatgtatctcgta...129...cttctgagcagt tgtaaact
C.Bri  ccaTACTA TACAgAATCATTtctgcagtatgtatctcgta...129...cttctgagcagt tatataaa
C.Bre  ccaTACTA TACAgAATCATTtctgcagtatgtatctcgt...131...cttctgagcagt tttataaa
C.Rem  ccatACTA TACAgAATCATTtctgcagtatgtatctcgta...129...cttctgagcagt tatataaa
*****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

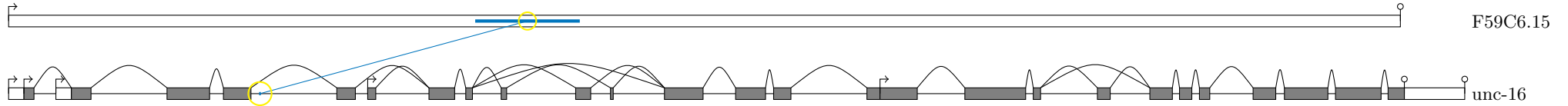
```

C.Ele  tcgagagg tag---agatactaattgata-ttatacAGTGATTGTGaTAGT-----cttttttgtgaaaccacct...663...cgtgctttcagt cccatctg
C.Bri  tccagagg tagattaaataaaaatcgatattttacAGTGATTGTGaTAGTA-gttgtatcaattttgatt-----tg...184...aatattttcagt accatcag
C.Bre  tcaagagg t-----agat-attattaata-cgttc-GTGATTGTGaTAGTAgtttttattatttttatt-----c...219...tggtgtttcagt accatcgg
C.Rem  tcaagagg t-----agatcaaaattgatattgatcAGTGATTGTGaTAGT-----tccttatttttattgtgacc...106...aaaatttgagt tccttcgg
** ***** * ** ** ** * ***** ** ** ** **

```

id=72007 gene=C39F7.2 name=madd-2 segment=chrV\_1226109\_1226842\_-1 type=IN

Figure 55: CS=5.84



|        |          |   |             |                                 |              |           |
|--------|----------|---|-------------|---------------------------------|--------------|-----------|
| C. Ele | ccatacta | tacagaatcatttctgcagtatgtatctcgtaattcccatcaaattggtaGAGAtgCCA | AACTGCGATGA | aaggaggacgggcaggccgc...72...    | cttctgagcagt | tgtaaaact |
| C. Bri | ccatacta | tacagaatcatttctgcagtatgtatctcgtaattcccatcaaattggtaGAGAtgCCA | AACTGCGATGA | aaggaggacgggcaggccgc...72...    | cttctgagcagt | tataataa  |
| C. Bre | ccatacta | tacagaatcatttctgcagtatgtatctcgtaattcccatcaaattggtaGAGAtgCCA | AACTGCGATGA | aaaggaggacgggcaggccgc...74...   | cttctgagcagt | ttttataa  |
| C. Jap | ccatacta | tacagaatcatttctgcagtatgtatctcgtaattcccatcaaattggtaGAGAtgCCA | AACTGCGATGA | aaggaggacgggcaggccgc...75...    | cctctgagcagt | ttttgttt  |
| C. Rem | ccatacta | tacagaatcatttctgcagtatgtatctcgtaattcccatcaaattggtaGAGAtgCCA | AACTGCGATGA | tgaaaggaggacgggcaggccgc...75... | cttctgagcagt | tataataa  |
|        | *****    | *****   | *****       | *****                           | *****        | *****     |

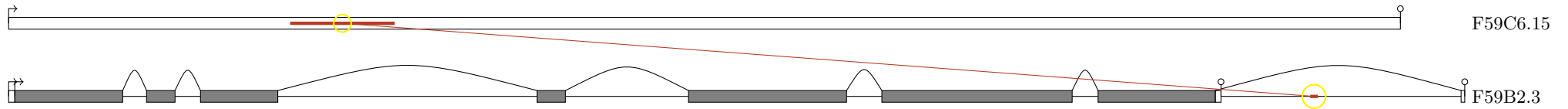
id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

|        |            |  |       |               |                               |              |          |
|--------|------------|--|-------|---------------|-------------------------------|--------------|----------|
| C. Ele | --taatttaa | ttaaatttaaaaaagtgattaatatttgactgttggtgtcg-----                 | TTGT  | TGTAGTTGGTTTC | caatatcacatcgcttacat...544... | gggcatggctgc | ttctgtgg |
| C. Bri | -----      | -tgattcttttaa--tctcaatttgaccgtcgtgatg-----                     | TCGTT | TGAGTTGGTTTC  | caatctcgcatcgcttgcat...266... | gggaatggccgc | ttctgtcg |
| C. Bre | -----tata  | ttcgttttttaa--gctttattcttgactgtcgtgctg-----                    | CGTT  | TGAGTTGGTTTC  | cgatatcgcatcgattgcat...259... | gggtatggcagc | ttcagtag |
| C. Jap | -----      | -----tttatggacaacatttaga--tgattttgggttgaacgtttctgaaatgcgttttga | TCGTT | TGAGTTGGTTTC  | cgatatcgcatcgcttgcat...204... | gggaatggccgc | gtcggtag |
| C. Rem | gttgattt-- | ttcaatttcaaaa-ttctctata-ttgactgttggtcgcgtcctt-----             | TTGT  | TGTAGTTGGTTTC | caatatcgcatcgcttgcat...396... | gggcatggctgc | ttcagtcg |
|        |            | * * * * *  | ***** | *****         | *****                         | *****        | *****    |

id=322014 gene=ZK1098.10 name=unc-16 segment=chrIII\_9547847\_9548480\_1 type=IN

Figure 56: CS=5





```

C.Ele ccatacta tacagaatcatttctgcagtatgTATCTCGTAATTCcCATCaaattggtagagatgccaac...100...cttctgagcagt tgtaaaact
C.Bri ccatacta tacagaatcatttctgcagtatgTATCTCGTAATTCcCATCaaattggtagagatgccaac...100...cttctgagcagt tatataaa
C.Bre ccatacta tacagaatcatttctgcagtatgTATCTCGTAATTCCATCaaattggtagagatgccaac...101...cttctgagcagt ttttataa
C.Jap ccatacta tacagaatcatttctgcagtatgTATCTCGTAATTCcCATCaaattggtagagatgccaac...103...cctctgagcagt ttttgttt
C.Rem ccatacta tacagaatcatttctgcagtatgTATCTCGTAATTCCATCaaattggtagagatgccaac...100...cttctgagcagt tatataaa
*****

```

id=205533 gene=F59C6.15 name=F59C6.15 segment=chrI\_10516967\_10517139\_-1 type=EN

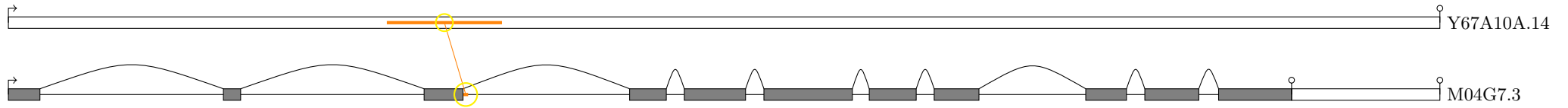
```

C.Ele atatttct tgttctcatcta--...132...gggcggttaccgtcgaaggaGATGctGAATccATGAatGATGgtagggctttggtacaaccg...245...aatccatgttc aatgccgg
C.Bri atatttac tacactgcctt--...144...gggcggtgacggtcgacgggGATGcaGAATcgATGAacGATGgaagggcgctggtgcaaccg...274...aatcgatgttc aacgcggg
C.Bre caactgcc tgttcttgctta--...121...gggcggtgacgaccgaaggaGATGcGGAATcgATGAatGATGgaagagcgttggtagacca...129...aatcaatgttc aatgccgg
C.Jap ttacatct tgtgaataaatt--...137...ggtcaccgactgttgaagggGATGccGAATcgATGAatgacggaagagccttctgtg-----...120...aatcaatgttc aatgccgg
C.Rem aaatttct --ttattatcaaac...134...gggcggtgacggctgaaggaGATGcGGAATcgATGAatGATGggagagccttggtagaaca...106...aatccatgttc aatgccgg
*

```

id=17145 gene=F59B2.3 name=F59B2.3 segment=chrIII\_8996348\_8996810\_-1 type=I3

Figure 57: CS=5



```

C.Bri attgagaccatactatacagaatcatttctgcagtatgtatctcgtAATTccCATCaAATTGgtagagatgccaaactgcat...87...ccatgctcttctgagcagtt
C.Bre atcgagaccatactatacagaatcatttctgcagtatgtaTCTCgtAATTCCATCaAATTGgtagagatgccaaactgcat...88...gcctgctcttctgagcagtt
C.Jap gtcgagaccatactatacagaatcatttctgcagtatgtatctcgtAATTCcCATCaAATTggtagagatgccaaactgca...91...gcctgctcctctgagcagtt
C.Rem aacgagaccatactatacagaatcatttctgcagtatgtatctcgtAATTCcCATCaAATTGgtagagatgccatccgcat...90...gccagctcttctgagcggat
***** * **** * **** * **** *

```

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

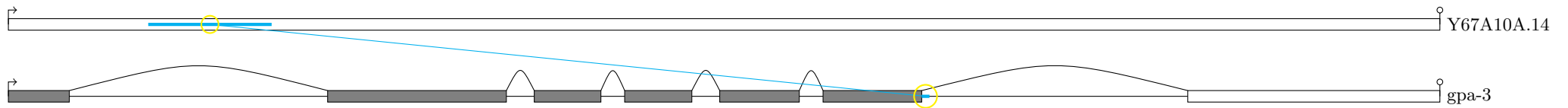
```

C.Bri tGATTGATGtaAGTTcaaatgaaaacttttaga-----...59...-atcctttccagggtccgtg
C.Bre tGATTGATGtGAGTTGAGA----gttcagggagaagaggaaca...344...tcataatt-acagggacatg
C.Jap gGATTGATGtGAGTT-----ttttttcctagttgggata...982...aaaaaatt-acagggaccctg
C.Rem tGATTGATGtGAGTTtaaaaatcagttgttatgtg-----...54...-cataattttcagggacatg
***** * **** * **** * **** *

```

id=40650 gene=M04G7.3 name=M04G7.3 segment=chrIV\_463320\_463773\_-1 type=IN VIEW

Figure 58: CS=6.68



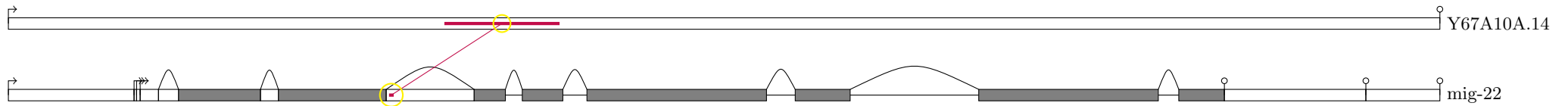
|       |          |         |          |            |             |              |        |              |           |
|-------|----------|---------|----------|------------|-------------|--------------|--------|--------------|-----------|
| C.Ele | atcgagac | catacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 117... | gcctgctcttct | gagcagtt  |
| C.Bri | attgagac | catacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 116... | ccatgctcttct | gagcagtt  |
| C.Bre | atcgagac | catacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 117... | gcctgctcttct | gagcagtt  |
| C.Jap | gtcgagac | catacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 119... | gcctgctcctct | gagcagtt  |
|       | * ****   | *****   |          |            |             |              |        | * ****       | *** ***** |

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

|       |       |       |            |            |                |        |              |          |
|-------|-------|-------|------------|------------|----------------|--------|--------------|----------|
| C.Ele | tGTA  | ctGA  | AATGTTTGTG | cctttctctc | tctctctctt...  | 619... | ttcttttgcttt | caggcctc |
| C.Bri | tGTA  | ctGA  | AATGTTTGTG | cctttctctc | tctccccctct... | 438... | ttttctgcttt  | caggcctc |
| C.Bre | tGTA  | ctGA  | AATGTTTGTG | cctttctctc | tctccccctct... | 143... | ctttactgcttt | caggcctc |
| C.Jap | tGTA  | ctGA  | AATGTTTGTG | cccatccctt | tcgatctc...    | 70...  | ttgattgtttt  | caggcttg |
|       | ***** | ***** | ** ** *    |            |                | *      | ***          | ***** *  |

id=62462 gene=E02C12.5 name=gpa-3 segment=chrV\_9357047\_9357707\_-1 type=I3

Figure 59: CS=5.12



```

C.Ele atcgagac catactatacagaatcatttctgcagtatgtatctcgtattcccATCATATTGGTAGAGatgccaaactgcgatgaaagg...82...gcctgctcttct gagcagtt
C.Bri attgagac catactatacagaatcatttctgcagtatgtatctcgtAATTCccATCAAATTGGTAGAGatgccaaactgcgatgaaagg...80...ccatgctcttct gagcagtt
C.Bre atcgagac catactatacagaatcatttctgcagtatgtatctcgtattcccATCAAATTGGTAGAGatgccaaactgcgatgaaagg...81...gcctgctcttct gagcagtt
C.Jap gtcgagac catactatacagaatcatttctgcagtatgtatctcgtAATTCccATCAAATTGGTAGAGatgccaaactgcgatgaaagg...84...gcctgctcttct gagcagtt
C.Rem aacgagac catactatacagaatcatttctgcagtatgtatctcgtattcccATCAAATTGGTAGAGatgccaaactgcgatgaaagg...84...gccagctcttct gagcggat
**** ***** * ***** ** * **** ** *

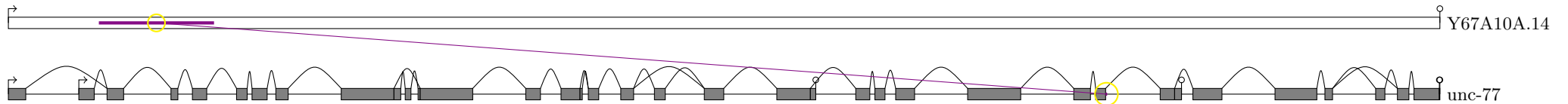
```

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV.14326921.14327094.-1 type=EN

|       |                  |                           |  |                |
|-------|------------------|---------------------------|--|----------------|
| C.Ele | tgggtctc         | <b>CTTTCAATATGGT</b>      | -----tagttgagttgttcaaaaat...199...tgattaaaaata | aaatg-----ttt- |
| C.Bri | tcggcct <b>T</b> | <b>CTTTCAATaTGGTGAGTT</b> | -tcttttcgtttgattgatt...135...-----acccttc      | aaatagacctttt- |
| C.Bre | tgggtct <b>T</b> | <b>CTTTCAATaTGGT</b>      | -----tagtagcaagtgcgctgac...356...-----ttcttct  | gaatattgctttt- |
| C.Jap | tcggactg         | <b>CTTTCAATaTGGTGAGTT</b> | ttatttgggtaa--aaaaaata...837...-----ctatta     | caacaatcttttt- |
| C.Rem | ttggtcta         | <b>CTTTCAATaTGGT</b>      | -----agttgaatcattttaag...209...ctagcatgattc    | cggtg-----ttt- |
|       | * ** **          | *****                     | *  | ***            |

id=141499 gene=PAR2.4 name=mig-22 segment=chrIII.8766315.8766559.-1 type=AN

Figure 60: CS=5.75



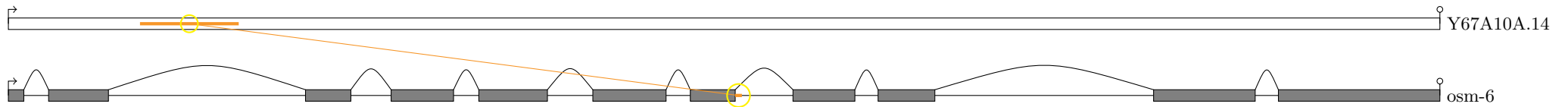
|        |          |         |                     |   |          |
|--------|----------|---------|---------------------|---|----------|
| C. Ele | atcgagac | ca----  | TACTATACagAATCAT    | ttctgcagtatgtatctcgt...124..gcctgctcttct  | gagcagtt |
| C. Bri | att----  | GAGACca | TACTATACagAATCAT    | ttctgcagtatgtatctcgt...123...ccatgctcttct | gagcagtt |
| C. Bre | atcgagac | ca----  | TACTATACagAATCAT    | ttctgcagtatgtatctcgt...124..gcctgctcttct  | gagcagtt |
| C. Jap | gtcgaga- | ----    | CCATACTATACagAATCAT | ttctgcagtatgtatctcgt...126..gcctgctcttct  | gagcagtt |
| C. Rem | -----aaC | GAGACca | TACTATACagAATCAT    | ttctgcagtatgtatctcgt...126..gccagctcttct  | gagcggat |
| *****  |          |         |                     |   |          |

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

|        |          |          |          |   |       |                        |                    |
|--------|----------|----------|----------|---|-------|------------------------|--------------------|
| C. Ele | gcATGATT | GTATGGTG | -----    | agtgaactaccttgaacttttatcaaa-----        | ..... | aaaagtattttatctgtctatt | t-----tcagaga--    |
| C. Bri | gcATGATT | GTATGGTG | aGTTTT   | -----                                   | ..... | -----                  | t-----tcagaga--    |
| C. Bre | gcATGATT | GTATGGTG | -----    | agtgaa-----                             | ..... | -----                  | t-----tcagaga--    |
| C. Jap | gcATGATT | GTATGGT  | aaGTGG   | ctgtgtttaaatcccagagttaacgacctctggttaatt | ..... | -----                  | ttatggtatcaaaaaata |
| C. Rem | gcATGATT | GTATGGT  | aaGTTTCG | -----                                   | ..... | -----                  | t-----tcagaga--    |
| *****  |          |          |          |   |       |                        | ***                |

id=21079 gene=C11D2.6 name=unc-77 segment=chrIV\_6160438\_6161006\_-1 type=IN VIEW

Figure 61: CS=6.3



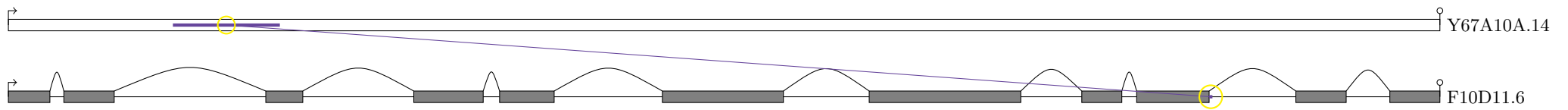
|        |                        |                               |                               |              |          |
|--------|------------------------|-------------------------------|-------------------------------|--------------|----------|
| C. Ele | -----a <b>TCGAGA</b> c | <b>cATACTaTACAGAATCaTTTCT</b> | gcagtatgtatctcgtaatt...120... | gcctgctcttct | gagcagtt |
| C. Bri | attgagaccatacta-----   | ----- <b>TACAGAATCaTTTCT</b>  | gcagtatgtatctcgtaatt...119... | ccatgctcttct | gagcagtt |
| C. Jap | gtcgagaccatacta-----   | ----- <b>TACAGAATCaTTTCT</b>  | gcagtatgtatctcgtaatt...122... | gcctgctcttct | gagcagtt |
| C. Rem | aacgagaccatacta-----   | ----- <b>TACAGAATCaTTTCT</b>  | gcagtatgtatctcgtaatt...122... | gccagctcttct | gagcggat |
|        | *                      | *****                         |                               | * *** **     | *** * *  |

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

|        |                 |                             |   |           |        |
|--------|-----------------|-----------------------------|---|-----------|--------|
| C. Ele | <b>gGAAAGAT</b> | <b>TtTTGTAAGTGTatTTTGAT</b> | atggt-----tcgaataaaacttccccggttggttgaggcgtgcaggatgcgcctcccaccgcctcttaactcgcttattgaaaatttcaatt | tcaggata  |        |
| C. Bri | <b>gGAAAGAT</b> | <b>TtTTGTA</b>              | ggt-----cttt-----ttgatt-----tttgatttttcc-----atataaatt  | tcaggata  |        |
| C. Jap | <b>gGAAAGAT</b> | <b>TtTTGTA</b>              | aga-----accctacattctttcaaatttt-----tttgaacatttcc-----tctgct                                   | ttaggaca  |        |
| C. Rem | <b>gGAAAGAT</b> | <b>TtTTGTG</b>              | agttgtttctctcggaaactcttcaa-----aaaacttcc-----tagttt   | ccaggaca  |        |
|        | ** *****        | *****                       | * **  | * * * * * | **** * |

id=304915 gene=R31.3 name=osm-6 segment=chrV\_11925867\_11925978\_-1 type=IN

Figure 62: CS=5.64



```

C.Ele  atcgagac  catactatacacagAATCatTTCTGCAGtatgtatctcgtaattcca...116...gcctgctcttct gagcagtt
C.Bri  attgagac  catactaTACAgAATCatTTCTGCAGtatgtatctcgtaattcca...115...ccatgctcttct gagcagtt
C.Bre  atcgagac  catactatacagGAATCatTTCTGCAGtatgtatctcgtaattcca...116...gcctgctcttct gagcagtt
C.Rem  aacgagac  catactaTACAgAATCatTTCTGCAGtatgtatctcgtaattcca...118...gccagctcttct gagcggat
*  *****

```

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

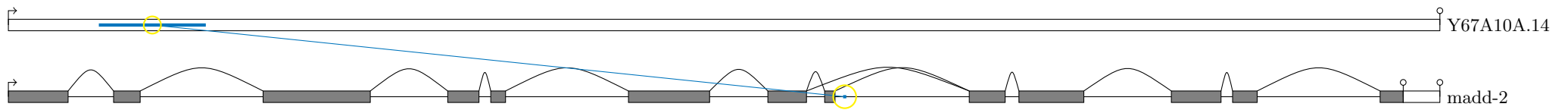
```

C.Ele  tTGCAGAA GGTT----agaaaaa-----:~::~-aaaaccatttttaaaatatttat--ttata ggttgcta
C.Bri  tTGCAGAA GGTTTGTGattagaaaacaatcagacaagaatgagtctctagcagaga:~::~-----gaattcgtttaattttca ggttgcta
C.Bre  tTGCAGAA GGTTT-----:~::~-----tttta ggttgcca
C.Rem  tTGCAGAA GGTTTGTGaggaggagagatggattcagaatttataatcaacaaat-~::~:gattcgtcacatctcaaattttcatcattcca ggttgcca
*****  ****                                     ** * ***** *

```

id=201778 gene=F10D11.6 name=F10D11.6 segment=chrI\_8445918\_8446203\_-1 type=IN

Figure 63: CS=6.52



```

C.Ele  atcgagac catACTATACAgAATCATTtctgcagtatgtatctcgta...123...gcctgctcttct gagcagtt
C.Bri  attgagac caTACTATACAgAATCATTtctgcagtatgtatctcgta...122...ccatgctcttct gagcagtt
C.Bre  atcGAGAC  caTACTATACAgAATCATTtctgcagtatgtatctcgt-...124...gcctgctcttct gagcagtt
C.Rem  aacgagac catACTATACAgAATCATTtctgcagtatgtatctcgta...125...gccagctcttct gagcggat
*  **** * ***** * ***** **** * *

```

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

```

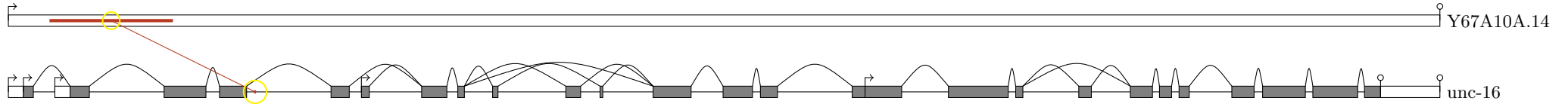
C.Ele  tcgagagg tag---agatactaattgata-ttatacAGTGATTTGTGaTAGT-----ctttttttgtgaaaccacct...663...cgtgcttttcagt cccatctg
C.Bri  tccagagg tagattaaataaaaatcgatattttacAGTGATTTGTGaTAGTA-gttgtatcaattttgattg-----...184...aatattttcagt accatcag
C.Bre  tcaagagg t-----agat-attattaata-cgttc-GTGATTTGTGaTAGTAGTTTTtattttttttattcgtggg-----...214...tgttgttttcagt accatcgg
C.Rem  tcaagagg t-----agatcaaaattgatattgatcAGTGATTTGTGaTAGT-----tccttatttttatt-gtgacc-----...106...aaaatttgagt tccttcgg
** ***** * ** ** ** * ***** ** ** * ** ***** ** ** *

```

id=72007 gene=C39F7.2 name=madd-2 segment=chrV\_1226109\_1226842\_-1 type=IN

Figure 64: CS=5.84





|       |                  |                                    |                           |         |              |          |
|-------|------------------|------------------------------------|---------------------------|---------|--------------|----------|
| C.Ele | atcGAGAC         | CA <b>ACTATACAGA</b>               | atcatttctgcagtatgtat----- | ..129.. | gcctgctcctct | gagcagtt |
| C.Bri | a <b>TTGAGAC</b> | CA <b>ACTA</b> ta <b>CAGA</b>      | atcatttctgcagtatgtat----- | ..128.. | ccatgctcctct | gagcagtt |
| C.Bre | a <b>TCGAGAC</b> | CA <b>ACTA</b> ta <b>CAGA</b>      | atcatttctgcagtatgtat----- | ..129.. | gcctgctcctct | gagcagtt |
| C.Jap | g <b>TCGAGAC</b> | CA <b>ACTA</b> ta <b>CAGAATCAT</b> | ttctgcagtatgtatctcgt..    | 126..   | gcctgctcctct | gagcagtt |
| C.Rem | aacGAGAC         | CA <b>ACTA</b> ta <b>CAGAA</b>     | tatttctgcagtatgtatc-----  | ..130.. | gccagctcctct | gagcggat |

\*\*\*\* \* \*\*\*\* \* \*

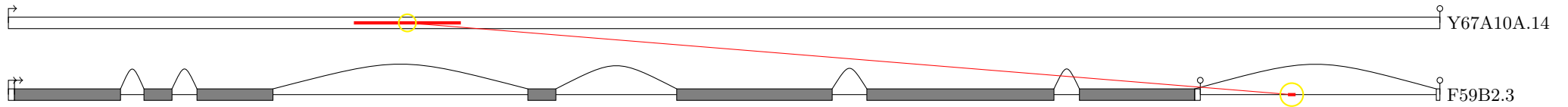
id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

|       |                          |   |  |                          |                                     |                                   |              |             |          |
|-------|--------------------------|---|--|--------------------------|-------------------------------------|-----------------------------------|--------------|-------------|----------|
| C.Ele | --taatttaa               | ttaaatttaaaaaagtgattaatatttgactgttgtgt----    | cg-----                                    | <b>TTGTTGTAGTTGGTTTC</b> | caatatcacatcgcttacat----            | ..544..                           | gggcatggctgc | tctgtg      |          |
| C.Bri | -----                    | -tgattcttttaaa--tcttcaatttgaccgtcgtga----     | tgctg-----                                 | <b>TTTGTAGTTGGTTTC</b>   | <b>CAAT</b> ctcgcacgcttgcatataaaa.. | 262..                             | gggaatggccgc | ttctgtcg    |          |
| C.Bre | -----                    | tata  | ttcgttttttttaa--gctttattcttgactgtcgtgc---- | tgcg-----                | <b>TTTGTAGTTGGTTTC</b>              | <b>CGAT</b> atcgcacgattgcataaaa.. | 255..        | gggatggcagc | ttcagtag |
| C.Jap | ----tttatg               | gacaacatttagatgatttgggtggaacgtttctgaaatgcggtt | <b>GTGAT</b> cg                            | <b>TTTGTAGTTGGTTTC</b>   | <b>CGAT</b> atcgcacgcttgcatataaaa.. | 200..                             | gggaatggccgc | gtcggtag    |          |
| C.Rem | g <sup>+</sup> ttgattt-- | ttcaatttctaaaa-ttctctata-ttgactgttgtgc----    | cgtc-----                                  | <b>TTTGTAGTTGGTTTC</b>   | caatatcgcacgcttgcat----             | 396..                             | gggcatggctgc | ttcagtag    |          |

\* \* \* \* \*

id=322014 gene=ZK1098.10 name=unc-16 segment=chrIII\_9547847\_9548480\_1 type=IN

Figure 65: CS=5



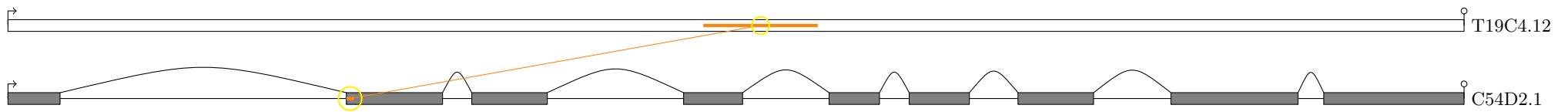
|       |          |                                |          |            |                              |              |          |        |
|-------|----------|--------------------------------|----------|------------|------------------------------|--------------|----------|--------|
| C.Ele | atcgagac | catactatacagaatcatttctgcagtatg | TATCTCGT | aATTCCATC  | atattggtagagatgccaac...94... | gcctgctcttct | gagcagtt |        |
| C.Bri | attgagac | catactatacagaatcatttctgcagtatg | TATCTCGT | aATTCCATC  | aaattggtagagatgccaac...93... | ccatgctcttct | gagcagtt |        |
| C.Bre | atcgagac | catactatacagaatcatttctgcagtatg | TATCTCGT | aATTCCCATC | aaattggtagagatgccaac...94... | gcctgctcttct | gagcagtt |        |
| C.Jap | gtcgagac | catactatacagaatcatttctgcagtatg | TCGT     | aATTCCATC  | aaattggtagagatgccaac...96... | gcctgctcttct | gagcagtt |        |
| C.Rem | aacgagac | catactatacagaatcatttctgcagtatg | TATCTCGT | aATTCCCATC | aaattggtagagatgccatc...96... | gccagctcttct | gagcggat |        |
|       |          | *****                          | *****    |            |                              | *            | **** *   | **** * |

id=123657 gene=Y67A10A.14 name=Y67A10A.14 segment=chrIV\_14326921\_14327094\_-1 type=EN

|       |          |                         |                      |      |        |        |                                     |                               |             |          |
|-------|----------|-------------------------|----------------------|------|--------|--------|-------------------------------------|-------------------------------|-------------|----------|
| C.Ele | atatttct | tgttctcatcta--...132... | gggcggttaccgtcgaagga | GATG | ctGAAT | ccATGA | atGATG                              | gtaggcctttgtacaaccg...245...  | aatccatgttc | aatgccgg |
| C.Bri | atatttac | tacactcgctt--...144...  | gggcggtgacggtcgacggg | GATG | caGAAT | cgATGA | acGATG                              | gaagggcgctggtgcaaccg...274... | aatcgatgttc | aacgcggg |
| C.Bre | caactgcc | tgttcttgccta--...121... | gggcggtgacgaccgaagga | GATG | cGGAAT | cgATGA | atGATG                              | gaagagcgttgttacagcca...129... | aatcaatgttc | aatgccgg |
| C.Jap | ttacatct | tgtgaataaatt--...137... | ggtcaccgactgttgaaggg | GATG | ccGAAT | cgATGA | atgacggaagagccttctgtg-----...120... | aatcaatgttc                   | aatgccgg    |          |
| C.Rem | aaatttct | --ttattatcaaac...134... | gggcggtgacggctgaagga | GATG | cGGAAT | cgATGA | atGATG                              | ggagagccttggtaacaaca...106... | aatccatgttc | aatgccgg |
|       |          | *                       | ***                  | **   | **     | **     | *****                               | *****                         | *****       | *****    |

id=17145 gene=F59B2.3 name=F59B2.3 segment=chrIII\_8996348\_8996810\_-1 type=I3

Figure 66: CS=5



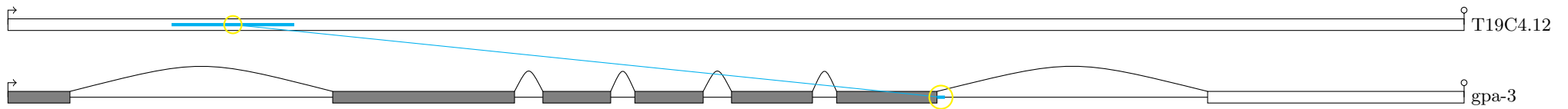
|       |          |   |                    |   |                          |       |
|-------|----------|---|--------------------|---|--------------------------|-------|
| C.Ele | tacatcga | gaccatactata...45...gtagagatgccatccgcat | GAGTgGGAGAcGGGC    | gagccgcgagcgtgaaacag                    | ----...54...tgctcttctga  | gcgat |
| C.Bri | ttcatcga | gaccatactata...45...gtagagatgccatccgcat | GAGTgGGAGAcGGCAAAA | cgcgagcgtgaaacagttct...50...tgctcttctga |                          | gcgat |
| C.Bre | tccattga | gaccatactata...45...gtagagatgccatccgcat | GAGTgGGAGAcGGGC    | aagccgcgagcgtgaaacag                    | ----...54...tgctcttctga  | gcgat |
| C.Rem | aacaacga | gaccatactata...45...gtagagatgccatccgcat | GAGTgGGAGAcGGGC    | ggcgcgagcgtgaaacag                      | ----...57...cagctcttctga | gcgat |
| ** ** |          | *****                                   |                    | *****                                   |                          | ***** |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511.11175688.-1 type=EN

|        |          |   |                    |          |        |         |
|--------|----------|---|--------------------|----------|--------|---------|
| C.Ele  | gtaagt   | ttcagtttaaaa...843...attca                  | ---atcactttattttca | GTCCcTCT | CTACTC | tt      |
| C.Bri  | ggtatgtt | ttaatttcattt...552...agacaatgtatcactt       | cactTTTTca         | GTCCcTCT | CTACTC | ct      |
| C.Bre  | ggtaggtt | ttcttttttcc...645...---acattttttttcatttcca  | GTCCcTCT           | CTACTC   | ct     |         |
| C.Rem  | ggtatgtt | ttatctcctttt...447...---aatcttttttttaattcca | GTCCcTCT           | CTACTC   | ct     |         |
| *** ** | ** *     | *   | *                  | ** ** *  | *****  | ***** * |

id=190717 gene=C54D2.1 name=C54D2.1 segment=chrX.7842673.7843555\_1 type=IN

Figure 67: CS=5.6



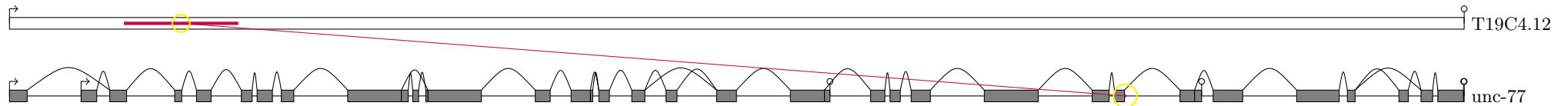
|       |          |            |          |            |             |              |        |        |          |          |        |
|-------|----------|------------|----------|------------|-------------|--------------|--------|--------|----------|----------|--------|
| C.Ele | tacatcga | gaccatacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 118... | ttgctc | tcttctga | gcggatat |        |
| C.Bri | ttcatcga | gaccatacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 118... | ttgctc | tcttctga | gcggatat |        |
| C.Bre | tccattga | gaccatacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 118... | ttgctc | tcttctga | gcggatta |        |
| C.Jap | ttcgtcga | gaccatacta | TACAGAat | CATTTCTGCA | gtatgtatctc | gtaattccc... | 121... | ctgctc | tcttctga | gcagtttt |        |
|       | * * * ** | *****      |          |            |             |              |        |        | *****    | *****    | ** * * |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV\_11175511\_11175688\_-1 type=EN

|       |       |       |            |             |               |        |         |       |          |   |
|-------|-------|-------|------------|-------------|---------------|--------|---------|-------|----------|---|
| C.Ele | tGTA  | ctGA  | AATGTTTGTG | ccttttctctc | tctctctctt... | 619... | ttctttt | gcttt | caggcctc |   |
| C.Bri | tGTA  | ctGA  | AATGTTTGTG | ccttttctctc | ccccctctct... | 438... | tttttct | gcttt | caggcctc |   |
| C.Bre | tGTA  | ctGA  | AATGTTTGTG | ccttttctctc | ccccctctct... | 143... | ctttact | gcttt | caggcctc |   |
| C.Jap | tGTA  | ctGA  | AATGTTTGTG | cccatcccttt | catgatctc...  | 70...  | ttgattg | ttttt | caggcttg |   |
|       | ***** | ***** | ** ** *    |             |               |        | *       | ***   | *****    | * |

id=62462 gene=E02C12.5 name=gpa-3 segment=chrV\_9357047\_9357707\_-1 type=I3 VIEW

Figure 68: CS=5.12



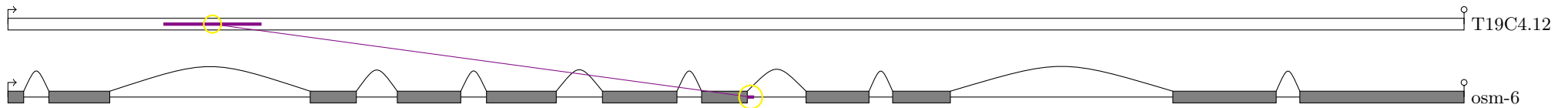
|        |          |               |                     |  |          |
|--------|----------|---------------|---------------------|--|----------|
| C. Ele | tacatcga | gacca-----    | TACTATACagAATCAT    | ttctgcagtatgatctcgt...125...tgctcttctga  | gcggatat |
| C. Bri | ttcatc-- | -----GAGACca  | TACTATACagAATCAT    | ttctgcagtatgatctcgt...125...tgctcttctga  | gcggatat |
| C. Bre | tccattga | gacca-----    | TACTATACagAATCAT    | ttctgcagtatgatctcgt...125...tgctcttctga  | gcggatta |
| C. Jap | ttcgtcga | ga-----       | CCATACTATACagAATCAT | ttctgcagtatgatctcgt...128...ctgctcctctga | gcagtttt |
| C. Rem | -----    | aacaaCGAGACca | TACTATACagAATCAT    | ttctgcagtatgatctcgt...128...cagctcttctga | gcggatat |
|        |          | *****         |                     | ****                                     | ****     |
|        |          |               |                     | ****                                     | ****     |
|        |          |               |                     | ****                                     | ****     |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV\_11175511.11175688\_-1 type=EN

|        |          |          |          |  |                             |                    |
|--------|----------|----------|----------|--|-----------------------------|--------------------|
| C. Ele | gcATGATT | GTATGGTG | ----     | agtgaactaccttgaacttttatcaaa-----                 | :::::aaaagtattttatctgtctatt | t-----tcagaga--    |
| C. Bri | gcATGATT | GTATGGTG | aGTTTT   | -----  | :::::-----att               | t-----tcagaga--    |
| C. Bre | gcATGATT | GTATGGTG | ----     | agtgaa-----                                      | :::::-----taaactatt         | t-----tcagaga--    |
| C. Jap | gcATGATT | GTATGGT  | aaGTGG   | ctgtgtttaatcccagagttaacgacctctggttaatt:::::----- | ttggcaatt                   | ttatggtatcaaaaaata |
| C. Rem | gcATGATT | GTATGGT  | aaGTTTCG | -----  | :::::-----gtctatt           | t-----tcagaga--    |
|        |          | *****    | *****    |  |                             | ***                |
|        |          |          |          |  |                             | *** * *            |

id=21079 gene=C11D2.6 name=unc-77 segment=chrIV\_6160438.6161006\_-1 type=IN

Figure 69: CS=6.3



```

C.Ele -----tacATCGA GAccATACTaTACAGAATCaTTTCTgcagtatgtatctcgtaatt...121...ttgctcttctga gcggatat
C.Bri ttcatcgagaccatacta-----TACAGAATCaTTTCTgcagtatgtatctcgtaatt...121...ttgctcttctga gcggatat
C.Jap ttcgctcgagaccatacta-----TACAGAATCaTTTCTgcagtatgtatctcgtaatt...124...ctgctcctctga gcagtttt
C.Rem aacaacgagaccatacta-----TACAGAATCaTTTCTgcagtatgtatctcgtaatt...124...cagctcttctga gcggatat
                                     ***                               **** ***** ** * * *

```

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511\_11175688\_-1 type=EN

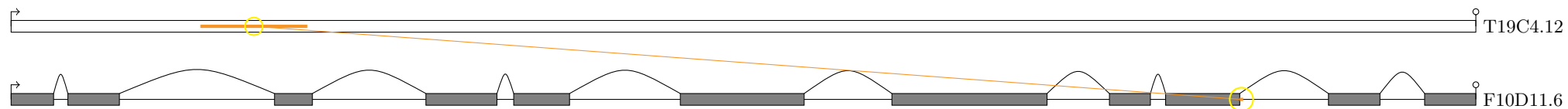
```

C.Ele gGAAAGAT TtTTGTAAGTGTatTTTGATatggt-----tcgaataaaacttccccggttggtgaggcgtgcaggatgcgctcccaccgcctcttaactcgcttattgaaaatttcaatt tcaggata
C.Bri gGGAAGAT TtTTGTA-----ggt-----cttt-----ttgatt-----tttgatttttcc-----atataaatt tcaggata
C.Jap gGAAAGAT TtTTGTA-----aga-----accctacattctttcaaattt-----tttgaacatttcc-----tctgct ttaggaca
C.Rem gGAAAGAT TtTTGTG-----agttgtttctctcggaataactcttcaa-----aaaacttcc-----tagttt ccaggaca
** ***** ***** * ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=304915 gene=R31.3 name=osm-6 segment=chrV.11925867\_11925978\_-1 type=IN VIEW

Figure 70: CS=5.64



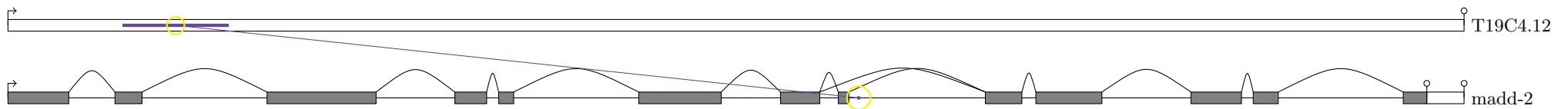
|       |          |                               |  |          |
|-------|----------|-------------------------------|--|----------|
| C.Ele | tacatcga | gaccatactatacagAATCatTTCTGCAG | tatgtatctcgtaatccca...117...tgctcttctga  | gcggatat |
| C.Bri | ttcatcga | gaccatactaTACAgAATCatTTCTGCAG | tatgtatctcgtaatccca...117...tgctcttctga  | gcggatat |
| C.Bre | tccattga | gaccatactatacaGAATCatTTCTGCAG | tatgtatctcgtaatccca...117...tgctcttctga  | gcggatta |
| C.Rem | aacaacga | gaccatactaTACAgAATCatTTCTGCAG | tatgtatctcgtaatccca...120...cagctcttctga | gcggatat |
|       | ** **    | *****                         | *****                                    | *****    |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511.11175688.-1 type=EN

|       |          |          |   |                                       |              |
|-------|----------|----------|---|---------------------------------------|--------------|
| C.Ele | tTGCAGAA | GGTT     | ----agaaaaa-----  | ::::::-aaaaccatttttaaaatatttat--ttata | ggttgcta     |
| C.Bri | tTGCAGAA | GGTTTGTG | attagaaaacaatcagacaagaatgagtcctctagcagaga:::::-----                         | -----gaattcgtttaatatttca              | ggttgcta     |
| C.Bre | tTGCAGAA | GGTTT    | -----   | -----tttta                            | ggttgcca     |
| C.Rem | tTGCAGAA | GGTTTGTG | aggaggagagagtggttcagatttataatcaacaaat-:::::gattcgtcacatctcaaattttcatcattcca |                                       | ggttgcca     |
|       | *****    | ***      |   |                                       | ** * ***** * |

id=201778 gene=F10D11.6 name=F10D11.6 segment=chrI.8445918.8446203.-1 type=IN

Figure 71: CS=6.52



```

C.Ele  tacatcga gaccatACTATACAgAATCATTtctgcagtatgtatctcgta...124...ttgctcttctga gcggatat
C.Bri  ttcacgga gaccaTACTATACAgAATCATTtctgcagtatgtatctcgta...124...ttgctcttctga gcggatat
C.Bre  tccattGA GACcaTACTATACAgAATCATTtctgcagtatgtatctcgt...125...ttgctcttctga gcggatta
C.Rem  aacaacga gaccatACTATACAgAATCATTtctgcagtatgtatctcgta...127...cagctcttctga gcggatat
      ** ** *****

```

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511.11175688.-1 type=EN

```

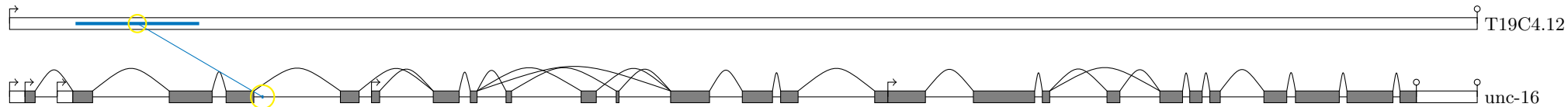
C.Ele  tcgagagg tag---agatactaattgata-ttatacAGTGATTGTGATAGT-----cttttttgtgaaaccacct...663...cgtgctttcagt cccatctg
C.Bri  tccagagg tagattaaataaaatcgatattttacAGTGATTGTGATAGTA-gttgtatcaattttgattg-----...184...aatattttcagt accatcag
C.Bre  tcaagagg t-----agat-attattaata-cgttc-GTGATTGTGATAGTAGTTTTtatttattttattcgtggg-----...214...tgttgtttcagt accatcgg
C.Rem  tcaagagg t-----agatcaaaattgatattgatcAGTGATTGTGATAGT-----tccttattttatt-gtgacc-----...106...aaaatttgagt tccttcgg
** ***** * ** ** ** * ***** ** ** * ** ***** ** ** *

```

id=72007 gene=C39F7.2 name=madd-2 segment=chrV.1226109.1226842.-1 type=IN VIEW

Figure 72: CS=5.84





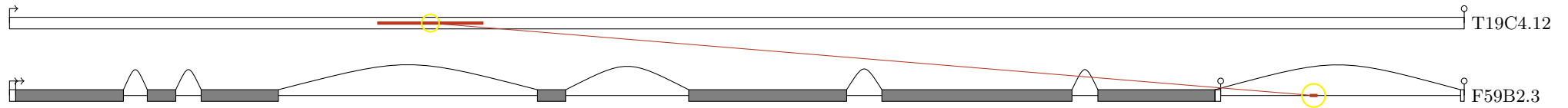
|       |          |       |                 |                           |        |              |             |
|-------|----------|-------|-----------------|---------------------------|--------|--------------|-------------|
| C.Ele | tacatcGA | GACCA | ACTATACAGA      | atcatttctgcagtatgtat----- | 130... | ttgctcttctga | gcggatat    |
| C.Bri | ttcatcGA | GACCA | ACTAtaCAGA      | atcatttctgcagtatgtat----- | 130... | ttgctcttctga | gcggatat    |
| C.Bre | tccATTGA | GACCA | ACTAtaCAGA      | atcatttctgcagtatgtat----- | 130... | ttgctcttctga | gcggatta    |
| C.Jap | ttcGTCGA | GACCA | ACTAtaCAGAATCAT | ttctgcagtatgtatctcgt...   | 128... | ctgctcctctga | gcagtttt    |
| C.Rem | aacaacGA | GACCA | ACTAtaCAGAA     | tcatttctgcagtatgtatc----  | 132... | cagctcttctga | gcggatat    |
|       | *        | **    | *****           |                           |        | ****         | **** ** * * |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511.11175688\_-1 type=EN

|       |            |   |   |                          |                       |                        |                   |          |
|-------|------------|---|---|--------------------------|-----------------------|------------------------|-------------------|----------|
| C.Ele | --taatttaa | ttaaatttaaaaaagtgattaatatttgactggtgtgt-----cg-----    | TTGTTGTAGTTGGTTTC                                   | caatatcacatcgcttacat---- | 544...                | gggcatggctgc           | tctgtg            |          |
| C.Bri | -----      | tgattcttttaaa--tcttcaattttgaccgtcgtga----tgctg-----   | TTTGTAGTTGGTTTC                                     | caatctcgcacgcttgcat----  | 266...                | gggaatggccgc           | ttctgtcg          |          |
| C.Bre | -----      | tata  | ttcgttttttttaa--gctttattcttgactgtcgtgc----tgcg----- | TTTGTAGTTGGTTTC          | CGAT                  | atcgcacgattgcataaaa... | 255...gggatggcagc | ttcagtag |
| C.Jap | ----tttatg | gacaacatttagatgattttgggttgaacgtttctgaaatgcgtttGTGATcg | TTTGTAGTTGGTTTC                                     | CGAT                     | atcgcacgcttgataaaa... | 200...                 | gggaatggccgc      | gtcgtgtg |
| C.Rem | gttgattt-- | ttcaatttctaaaa--ttctctata--ttgactggtgtgc---cgtc-----  | TTTGTAGTTGGTTTC                                     | caatatcgcacgcttgcat----  | 396...                | gggcatggctgc           | ttcagtcg          |          |
|       |            | *   | *   | *                        | *                     | **                     | * **              | *        |
|       |            |   | *****   | **                       | **                    | ****                   | ** **             | **       |

id=322014 gene=ZK1098.10 name=unc-16 segment=chrIII.9547847.9548480\_1 type=IN

Figure 73: CS=5



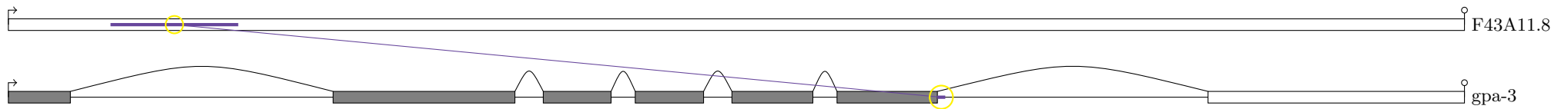
|       |          |                                   |          |   |       |      |  |                   |
|-------|----------|-----------------------------------|----------|---|-------|------|--|-------------------|
| C.Ele | tacatcga | gaccatactatacagaatcatttctgcagtatg | TATCTCGT | a | ATTCC | CATC | aaattggtagagatgccatc...95...ttgctcttctga | gcggatat          |
| C.Bri | ttcatcga | gaccatactatacagaatcatttctgcagtatg | TATCTCGT | a | ATTCC | CATC | aaattggtagagatgccatc...95...ttgctcttctga | gcggatat          |
| C.Bre | tccattga | gaccatactatacagaatcatttctgcagtatg | TATCTCGT | a | ATTCC | CATC | aatctggtagagatgccatc...95...ttgctcttctga | gcggatta          |
| C.Jap | ttcgtcga | gaccatactatacagaatcatttctgcagtatg | TCGT     | a | ATTCC | CATC | aaattggtagagatgccaac...98...ctgctcctctga | gcagtttt          |
| C.Rem | aacaacga | gaccatactatacagaatcatttctgcagtatg | TATCTCGT | a | ATTCC | CATC | aaattggtagagatgccatc...98...cagctcttctga | gcggatat          |
|       | *        | **                                | *****    |   |       |      | *  | **** ***** ** * * |

id=143992 gene=T19C4.12 name=T19C4.12 segment=chrV.11175511.11175688.-1 type=EN

|       |          |     |                       |                      |      |    |       |    |      |    |      |  |          |
|-------|----------|-----|-----------------------|----------------------|------|----|-------|----|------|----|------|--|----------|
| C.Ele | atatttct | tg  | tctcatcta--...132...  | gggcggtaccgtcgaagga  | GATG | ct | GAAT  | cc | ATGA | at | GATG | gtagggctttggtacaaccg...245...aatccatgttc     | aatgccgg |
| C.Bri | atatttac | tac | actcgcctt--...144...  | gggcggtgacggtcgcggg  | GATG | ca | GAAT  | cg | ATGA | ac | GATG | gaagggcgctggtgcaaccg...274...aatcgatgttc     | aacgcggg |
| C.Bre | caactgcc | tg  | tcttctcta--...121...  | gggcggtgacgaccgaagga | GATG | c  | GGAAT | cg | ATGA | at | GATG | gaagagcgttggtagacca...129...aatcaatgttc      | aatgccgg |
| C.Jap | ttacatct | tgt | gaataaatt--...137...  | ggtcaccgactgtgaagg   | GATG | cc | GAAT  | cg | ATGA | at | GATG | gacggaagagccttctgtg-----...120...aatcaatgttc | aatgccgg |
| C.Rem | aaatttct | --  | ttattatcaaac...134... | gggcggtgacggtcgaagga | GATG | c  | GGAAT | cg | ATGA | at | GATG | ggagagcctttggtacaaca...106...aatccatgttc     | aatgccgg |
|       | *        |     |                       | ** *                 | **   | ** | **    | ** | **   | ** | **   | **** *****                                   | ** * *   |

id=17145 gene=F59B2.3 name=F59B2.3 segment=chrIII.8996348.8996810.-1 type=I3

Figure 74: CS=5



```

C.Ele  gaccatac taTACAGAtCATTCTGCAgtatgtatttcgtaattccc...119...tgctcttctgag cggataat
C.Bri  gaccatac taTACAGAtCATTCTGCAgtatgtatctcgttaattccc...119...agctcttctgag cggatata
C.Bre  gaccatac taTACAGAtCATTCTGCAgtatgtatctcgttaattccc...119...tgctcttctgag cggataaa
C.Jap  gaccatac taTACAGAtCATTCTGCAgtatgtatctcgttaattccc...120...cgctcttctgag cggatggt
*****

```

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

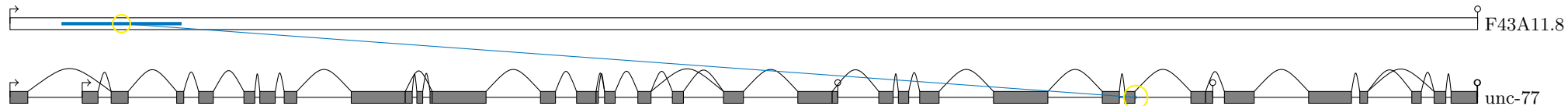
```

C.Ele  tGTAActGA AATGTTTGTGcctttctctctctctctctt...619...ttcttttgcttt caggcctc
C.Bri  tGTAActGA AATGTTTGTGcctttctctctcccctctct...438...ttttctgcttt caggcctc
C.Bre  tGTAActGA AATGTTTGTGcctttctctctcccctctct...143...cttactgcttt caggcctc
C.Jap  tGTAActGA AATGTTTGTGcccatccctttcatgatctc...70...ttgattgtttt caggcttg
*****

```

id=62462 gene=E02C12.5 name=gpa-3 segment=chrV\_9357047\_9357707\_-1 type=I3 VIEW

Figure 75: CS=5.12



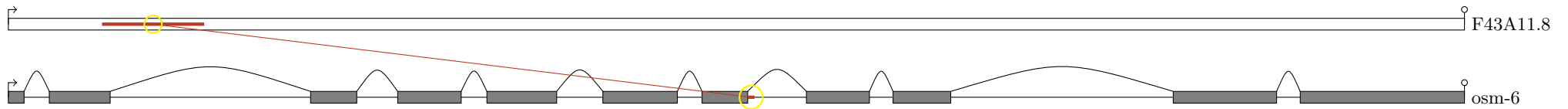
|       |          |               |   |          |
|-------|----------|---------------|---|----------|
| C.Ele | gaccaTAC | TATACagAATCAT | ttctgcagtatgtatttcgt...126...tgctcttctgag | cggataat |
| C.Bri | gaccaTAC | TATACagAATCAT | ttctgcagtatgtatctcgt...126...agctcttctgag | cggatata |
| C.Bre | gaccaTAC | TATACagAATCAT | ttctgcagtatgtatctcgt...126...tgctcttctgag | cggataaa |
| C.Jap | gaCCATAC | TATACagAATCAT | ttctgcagtatgtatctcgt...127...cgctcttctgag | cggatgtt |
| C.Rem | gaccaTAC | TATACagAATCAT | ttctgcagtatgtatctcgt...129...agctcttctgag | cggatata |
|       | *****    | *****         | *****                                     | *****    |

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

|       |          |               |   |                             |                    |
|-------|----------|---------------|---|-----------------------------|--------------------|
| C.Ele | gcATGATT | GTATGGTG      | ----agtgaactaccttgaacttttatcaaa-----    | :::::aaaagtattttatctgtctatt | t-----tcagaga---   |
| C.Bri | gcATGATT | GTATGGTG      | -----                                   | :::::-----att               | t-----tcagaga---   |
| C.Bre | gcATGATT | GTATGGTG      | -----                                   | :::::-----taaactatt         | t-----tcagaga---   |
| C.Jap | gcATGATT | GTATGGTaaGTGG | ctgtgtttaaatcccagagttaacgacctctggttaatt | :::::-----ttgggcaatt        | ttatggtatcaaaaaata |
| C.Rem | gcATGATT | GTATGGTA      | -----                                   | :::::-----gtctatt           | t-----tcagaga---   |
|       | *****    | *****         |   |                             | ***                |

id=21079 gene=C11D2.6 name=unc-77 segment=chrIV\_6160438\_6161006\_-1 type=IN

Figure 76: CS=6.3



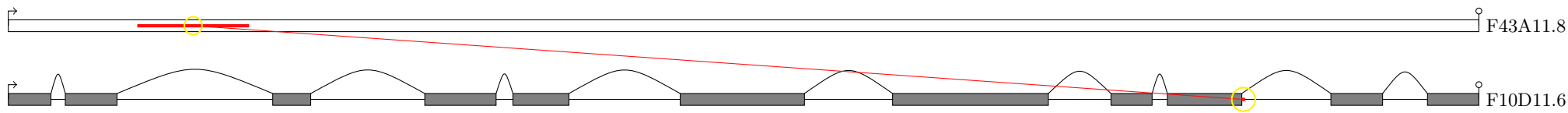
|        |          |      |           |           |   |   |          |
|--------|----------|------|-----------|-----------|---|---|----------|
| C. Ele | gacc     | ATAC | T         | TACAGAATC | ATTCT                                     | gcagtatgtatttcgtaatt...122...tgctcttctgag | cggataat |
| C. Bri | gaccatac | ta   | TACAGAATC | ATTCT     | gcagtatgtatctcgtaatt...122...agctcttctgag | cggatata                                  |          |
| C. Jap | gaccatac | ta   | TACAGAATC | ATTCT     | gcagtatgtatctcgtaatt...123...cgctcttctgag | cggatggt                                  |          |
| C. Rem | gaccatac | ta   | TACAGAATC | ATTCT     | gcagtatgtatctcgtaatt...125...agctcttctgag | cggatata                                  |          |
|        | *****    |      |           | *****     |   | *****                                     | ****     |

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

|        |    |         |    |            |    |   |       |                             |       |                |             |           |          |
|--------|----|---------|----|------------|----|---|-------|-----------------------------|-------|----------------|-------------|-----------|----------|
| C. Ele | g  | GAAAGAT | Tt | TTGTAAGTGT | at | ttttgatatggttcgaaataaactccccggttggtgagggcgtgcaggatg | cg    | cctccaccgcctctt             | ---   | aactcgccttattg | gaaattcaatt | tcaggata  |          |
| C. Bri | g  | GAAAGAT | Tt | TTGTA      | -- | ggtcttttgat   | ----- | tttt                        | ---   | gattttcc       | -----       | atataaatt | tcaggata |
| C. Jap | g  | GAAAGAT | Tt | TTGTA      | -- | agaaccctacat  | ----- | tctttcaaatttttg             | ---   | aacatttc       | -----       | tctgct    | ttaggaca |
| C. Rem | g  | GAAAGAT | Tt | TTGTG      | -- | agttgttt  | ----- | ctctcggaatactctttcaaaaacttc | ----- | tagttt         | -----       | ccaggaca  |          |
|        | ** | ****    |    | *****      |    | *   | *     |                             |       | *              | *           | *         | ****     |

id=304915 gene=R31.3 name=osm-6 segment=chrV\_11925867\_11925978\_-1 type=IN VIEW

Figure 77: CS=5.64



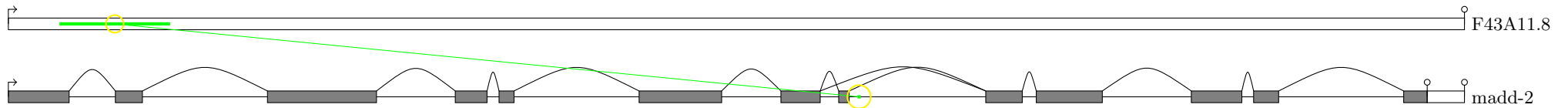
|       |          |         |       |          |                         |                         |              |              |          |
|-------|----------|---------|-------|----------|-------------------------|-------------------------|--------------|--------------|----------|
| C.Ele | gaccatac | tatacag | AATC  | TTCTGCAG | tatgtatttcgtaattcca...  | 118...                  | tgctcttctgag | cggataat     |          |
| C.Bri | gaccatac | ta      | TACA  | gAATC    | TTCTGCAG                | tatgtatctcgttaattcca... | 118...       | agctcttctgag | cggatata |
| C.Bre | gaccatac | tataca  | GAATC | TTCTGCAG | tatgtatctcgttaattcca... | 118...                  | tgctcttctgag | cggataaa     |          |
| C.Rem | gaccatac | ta      | TACA  | gAATC    | TTCTGCAG                | tatgtatctcgttaattcca... | 121...       | agctcttctgag | cggatata |
|       | *****    |         |       |          | *****                   |                         |              | *****        | *****    |

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

|       |       |         |          |   |              |                                  |                                |          |          |
|-------|-------|---------|----------|---|--------------|----------------------------------|--------------------------------|----------|----------|
| C.Ele | t     | TGCAGAA | GGTT     | -----                                     | agaaaaa----- | :::::-                           | aaaaccatttttaaaatatttat--ttata | ggttgcta |          |
| C.Bri | t     | TGCAGAA | GGTTTGTG | attagaaaacaatcagacaagaatgagtctctagcagaga: | ::::-        | -----                            | gaattcgtttaaatatttca           | ggttgcta |          |
| C.Bre | t     | TGCAGAA | GGTTT    | -----                                     | -----        | ::::-                            | -----                          | tttta    | ggttgcca |
| C.Rem | t     | TGCAGAA | GGTTTGTG | aggaggagagtggttcagcaatttataatcaacaaat-    | ::::-        | gattcgtcacatctcaaattttcatcattcca | ggttgcca                       |          |          |
|       | ***** |         | ***      |   |              |                                  | ** *                           | ***** *  |          |

id=201778 gene=F10D11.6 name=F10D11.6 segment=chrI\_8445918\_8446203\_-1 type=IN

Figure 78: CS=6.52



```

C.Ele  gaccatAC TATACAgAATCATTtctgcagtatgtatctcgta...125...tgctcttctgag cggataat
C.Bri  gaccaTAC TATACAgAATCATTtctgcagtatgtatctcgta...125...agctcttctgag cggatata
C.Bre  gaccaTAC TATACAgAATCATTtctgcagtatgtatctcgt-...126...tgctcttctgag cggataaa
C.Rem  gaccatAC TATACAgAATCATTtctgcagtatgtatctcgta...128...agctcttctgag cggatata
*****

```

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173.11585343.-1 type=EN

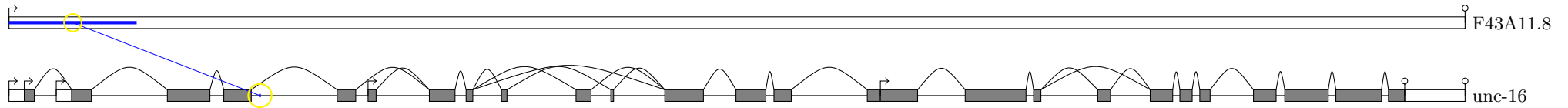
```

C.Ele  tcgagagg tag---agatactaattgata-ttatacAGTGATTGTGaTAGT-----cttttttgtgaaaccacct...663...cgtgctttcagt cccatctg
C.Bri  tccagagg tagattaaataaaaaatcgatattttacAGTGATTGTGaTAGTA-gttgtatcaattttgatt-----tg...184...aatattttcagt accatcag
C.Bre  tcaagagg t-----agat-attattaata-cgttc-GTGATTGTGaTAGTAgtttttattatttttatt-----c...219...tgttgtttcagt accatcgg
C.Rem  tcaagagg t-----agatcaaaattgatattgatcAGTGATTGTGaTAGT-----tccttatttttattgtgacc...106...aaaatttgagt tccttcgg
** ***** *      * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=72007 gene=C39F7.2 name=madd-2 segment=chrV\_1226109.1226842.-1 type=IN VIEW

Figure 79: CS=5.84



|       |                  |                                |   |          |
|-------|------------------|--------------------------------|---|----------|
| C.Ele | gACCA <b>TAC</b> | <b>TATACAGA</b>                | atcattttcgcagtatgtat-----...131...tgctccttctgag | cggataat |
| C.Bri | gACCA <b>TAC</b> | <b>TA</b> tac <b>AGA</b>       | atcattttcgcagtatgtat-----...131...agctccttctgag | cggatata |
| C.Bre | gACCA <b>TAC</b> | <b>TA</b> tac <b>AGA</b>       | atcattttcgcagtatgtat-----...131...tgctccttctgag | cggataaa |
| C.Jap | gACCA <b>TAC</b> | <b>TA</b> tac <b>CAGAATCAT</b> | ttctgcagtatgtatctcgt...127...cgctccttctgag      | cggatggt |
| C.Rem | gACCA <b>TAC</b> | <b>TA</b> tac <b>CAGAA</b>     | atcattttcgcagtatgtatc----...133...agctccttctgag | cggatata |
|       | *****            | *****                          | *****   | *****    |

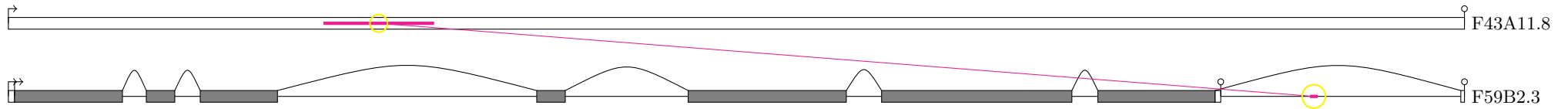
id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

|       |            |  |  |   |  |          |
|-------|------------|--|--|---|--|----------|
| C.Ele | --taatttaa | ttaaatttaaaaaagtgattaatatttgactggtgtg----cg-----   | <b>TTGTTGTAGTTGGTT</b>                         | tccaatatcacatcgcttac...546...ggcatggctgc  | tctgtgg                                  |          |
| C.Bri | -----      | -tgattcttttaa--tcttcaatttgaccgtcgtga----tgcg-----  | <b>TTTGTAGTTGGTT</b>                           | tccaatctcgcacgcttgc...268...gggaatggccgc  | ttctgtcg                                 |          |
| C.Bre | -----      | tata   | ttcgttttttaa--gctttattcttgactgctg----tgcg----- | <b>TTTGTAGTTGGTT</b>                      | tccgatatcgcatcgattgc...261...gggatggcagc | ttcagtag |
| C.Jap | ----tttatg | gacaacatttagatgattttgggttgaaacgtttctgaaatgcgttt    | <b>GTGAT</b> cg <b>TTTGTAGTTGGTT</b>           | tccgatatcgcatcgcttgc...206...gggaatggccgc | gtcggtag                                 |          |
| C.Rem | gttgattt-- | ttcaatttcaaaa--ttctctata-ttgactggtgtg----cgtc----- | <b>TTTGTAGTTGGTT</b>                           | tccaatctcgcacgcttgc...398...ggcatggctgc   | ttcagtcg                                 |          |
|       |            | * * * * *  | *****  | * * * * *                                 | * * * *                                  |          |

id=322014 gene=ZK1098.10 name=unc-16 segment=chrIII\_9547847\_9548480\_1 type=IN

Figure 80: CS=5





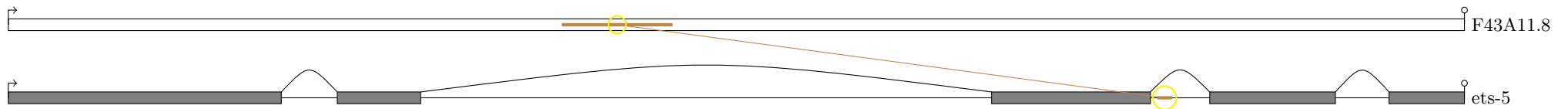
|       |          |                           |           |        |       |                         |       |              |          |
|-------|----------|---------------------------|-----------|--------|-------|-------------------------|-------|--------------|----------|
| C.Ele | gaccatac | tatacagaatcatttctgcagtatg | TATTCGTa  | ATTCc  | CATC  | aaattggtagagattccatc... | 96... | tgctcttctgag | cggataat |
| C.Bri | gaccatac | tatacagaatcatttctgcagtatg | TATCTCGTa | ATTCC  | CATC  | aaattggtagagatgccatc... | 96... | agctcttctgag | cggatata |
| C.Bre | gaccatac | tatacagaatcatttctgcagtatg | TATCTCGTa | ATTCCC | CATC  | aatctggtagagatgccatc... | 96... | tgctcttctgag | cggataaa |
| C.Jap | gaccatac | tatacagaatcatttctgcagtatg | TCGTa     | ATTCc  | CATC  | aaattggtagagatgccatc... | 97... | cgctcttctgag | cggatggt |
| C.Rem | gaccatac | tatacagaatcatttctgcagtatg | TATCTCGTa | ATTCCC | CATC  | aaattggtagagatgccatc... | 99... | agctcttctgag | cggatata |
|       | *****    | *****                     | *****     | *****  | ***** | *****                   | ***** | *****        | *****    |

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173\_11585343\_-1 type=EN

|       |          |                   |        |                      |        |         |        |      |                           |        |             |          |
|-------|----------|-------------------|--------|----------------------|--------|---------|--------|------|---------------------------|--------|-------------|----------|
| C.Ele | atatttct | tgttctcatcta--... | 132... | gggcggttaccgtcgaagga | GATGct | GAATcc  | ATGAat | GATG | gtagggctttgtacaaccg...    | 245... | aatccatgttc | aatgccgg |
| C.Bri | atatttac | tacactgcctt--...  | 144... | gggcggtgacggtcgacggg | GATGca | GAATcg  | ATGAac | GATG | gaagggcgctggtgcaaccg...   | 274... | aatcgatgttc | aacgcggg |
| C.Bre | caactgcc | tgttcttgccta--... | 121... | gggcggtgacgaccgaagga | GATGc  | GGAATcg | ATGAat | GATG | gaagagcgttgttacagcca...   | 129... | aatcaatgttc | aatgccgg |
| C.Jap | ttacatct | tgtgaataaatt--... | 137... | ggtcaccgactgttgaaggg | GATGcc | GAATcg  | ATGAat | GATG | atgacggaagagctcttctg----- | 120... | aatcaatgttc | aatgccgg |
| C.Rem | aaatttct | --ttattatcaaac... | 134... | gggcggtgacggtcgaagga | GATGc  | GGAATcg | ATGAat | GATG | ggagagctttgtacaaca...     | 106... | aatccatgttc | aatgccgg |
|       | *        |                   |        | ** *                 | **     | ** *    | ** *   | ** * | ** *                      | ** *   | ** *        | ** *     |

id=17145 gene=F59B2.3 name=F59B2.3 segment=chrIII\_8996348\_8996810\_-1 type=I3

Figure 81: CS=5



```

C.Bri gaccatactatacagaatcatttctgcagtatgtatctcgttaattcccatcaAATTGGtAGAGatGCCAtcCGCGATGAatgggagacgggcttgccgc-----...68...agctcttctgagcggatata
C.Bre gaccatactatacagaatcatttctgcagtatgtatctcgttaattcccatcaatctgGTAGAGAtGCCAtcCGCGATGAgtgggagacgggcaagccgc-----...68...tgctcttctgagcggataaa
C.Jap gaccatactatacagaatcatttctgcagtatgtatctcgttaattcccatcaaattggtaGAGAtGCCAtcCGCGATGAgtGGGagacgggcccggcgcgagcg...64...cgctcttctgagcggatggt
C.Rem gaccatactatacagaatcatttctgcagtatgtatctcgttaattcccatcaaattggtagagatGCCAtcCGCGATGAgtgggagacgggcccggcgc-----...71...agctcttctgagcggatata
*****

```

id=51978 gene=F43A11.8 name=F43A11.8 segment=chrV\_11585173.11585343\_-1 type=EN

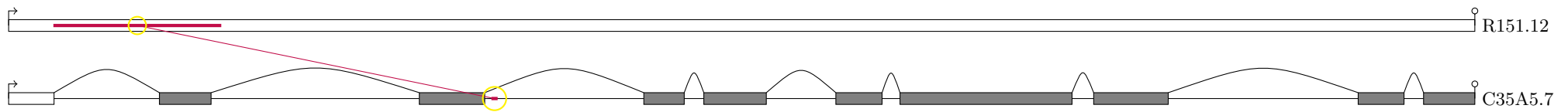
```

C.Bri cacgaaTCGTaCGCGtTGGTTTTCTAATT-----ctaaatcttcaaccatgctc...36...tttcagtttcagatattctc
C.Bre cacgaaTCGTaCGCGtTGGTttTTTTACattaaattcaattgtg-----tcct...42...gaattcttcagaaatcttg
C.Jap tTCGaaTCGTaCGCGtTGGTTTC-----atcttcttattttc-----tggt...287...tttttcttcagaagtcctc
C.Rem tacgaaTCGTaCGCGtTGGT-----tttatttttgacttttttg...36...ttttagtttcagagattctt
*****

```

id=273763 gene=C42D8.4 name=ets-5 segment=chrX\_5079971.5080022\_-1 type=IN

Figure 82: CS=40



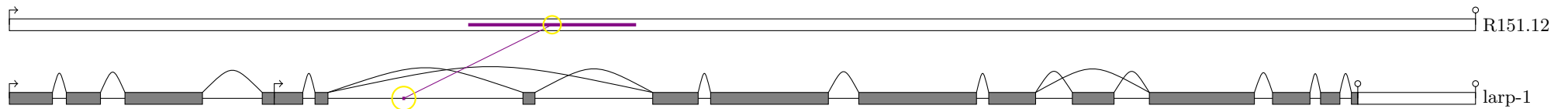
|       |         |         |                          |                            |          |              |          |
|-------|---------|---------|--------------------------|----------------------------|----------|--------------|----------|
| C.Ele | taca--- | GCAT    | cgAAAATgGACGGACTT        | -tccgat-ggatcgtttcgta----- | ...82... | acattatnttt  | aaaagctg |
| C.Bri | -attT-- | GCAT    | cgAAAAggGACGGgGTTTccTACT | --ggattgttccgtataatntt...  | ...75... | acattcattttc | aaaaacca |
| C.Bre | agaa--- | GCAT    | tgAAAAggGAC--GGTTT       | ttctaattagaacattccgt-----  | ...99... | aattttgtnttt | ggtgattt |
| C.Rem | ---c    | TTGGCAT | cgAAAAggGACGGgGTTTctTACT | --agattgatccgtataatntt...  | ...75... | acatttaattat | caaaagtt |
|       |         | ****    | *****                    | ***                        | **       | * **         | **       |

id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087\_1 type=EN

|       |          |                          |                              |           |              |          |       |
|-------|----------|--------------------------|------------------------------|-----------|--------------|----------|-------|
| C.Ele | ttgcgggg | tacAGGTTTGTGcGTTTTgcATGC | -acgagtttctttctgttgac----    | ...326... | tacctgaatatt | tccagatg |       |
| C.Bri | ttgccgGG | TAcAGGTTTGTGcTTTTgcATGCA | -cgaatttctttctatgatt---      | ...310... | aatttttgcaat | tccagatg |       |
| C.Bre | ttgccggg | tacAGGTtTGTCagTTTTgcATGC | -acgagtttctttctttttt----     | ...310... | aattgttaaat  | tacagatg |       |
| C.Rem | ttgccgGG | TAcAGGTTTGTGcTTTTgcATGC  | aCGAGtttcctctccttttttgatt... | ...324... | aaacttttgatt | ttcagatg |       |
|       | ****     | ***                      | *****                        | *****     | **           | **       | ***** |

id=197805 gene=C35A5.7 name=C35A5.7 segment=chrV.10512656\_10513037\_-1 type=IN

Figure 83: CS=5.04



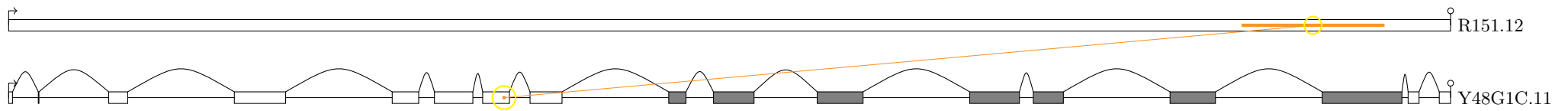
|       |          |                                    |           |       |          |                       |  |          |
|-------|----------|------------------------------------|-----------|-------|----------|-----------------------|--|----------|
| C.Ele | tacagcat | cgaaaatggacggactttcccgatggatcgt    | TTCGTA    | AATTT | tgGTGCA  | aaATAG                | -tagagagacgcagtgttact...43...acattatnttt | aaaagctg |
| C.Bri | atttgcac | cgaaaagggacggggtttcctactggattgtt   | CCGTA     | AATTT | tgGTGCG  | aa-agcatagagagccgcagt | -----...49...acattcattttc                | aaaaacca |
| C.Bre | agaagcat | tgaaaagggacggtttttcctaattagaacattc | CGTA      | AATTT | tgGTGC   | -aatagcatagagagccgcag | -----...66...aattttgtttt                 | ggtgatt  |
| C.Jap | agtgacat | cgaaaagggacgggttatccggctggat       | TGTTCCGTA | AATTT | cgGTGC   | -aagaaaatagagagccgcag | -----...64...ttaatttaattt                | aatgatt  |
|       | ****     | *****                              | * **      | * **  | ** ***** | ***** **              | *****                                    | ****     |

id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087\_1 type=EN

|       |          |  |                 |  |   |          |
|-------|----------|--|-----------------|--|---|----------|
| C.Ele | acaatact | ggtgagtgttca...270...aacaacagattcaccggtt       | TTAT            | TGCATAAATTTGCGGA                                 | -----cacttcgcatactttgacat...922...gtttgtttcca | ggtctcga |
| C.Bri | gcaatact | ggtgggtctcaa...216...----accgcattgtccgatttata  | CGCATAAATTTGCGG | -----c-ctcttcacttgg-ttccttt...609...tcaatattttca | ggtctcgc                                      |          |
| C.Bre | acagcact | gtaagtatgga...258...----caccatcgtccgttatacac   | GCATAAATTTGCG   | -----cgcttctcacttgc-gtgctg-...792...ttgttctttca  | ggtctcgc                                      |          |
| C.Jap | gcagtact | ggtgagaatgtt...275...----atcgcaatgt-ggttttatac | GCATAAATTTGCG   | aGAGTGc-tctctcgcaagggtatcc-...605...tttatcaattta | ggtctcgc                                      |          |
|       | ** ***   | *** * *  | * **            | *****  | ** * *  | * **     |

id=121420 gene=R144.7 name=larp-1 segment=chrIII.5014985\_5016261\_-1 type=IN VIEW

Figure 84: CS=5.92



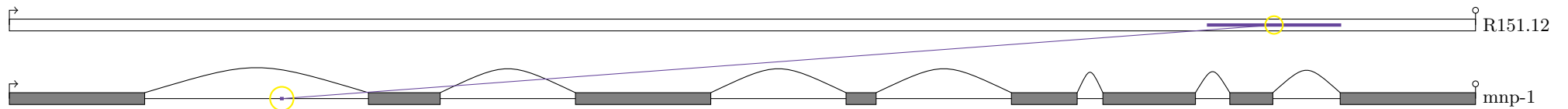
|       |          |  |         |         |         |       |         |            |                  |
|-------|----------|--|---------|---------|---------|-------|---------|------------|------------------|
| C.Ele | tacagcat | cgaaaatggacg...66...tccttacgttacctgtatct     | GGAGA   | TGCAAGC | TTCC    | ACATT | -----at | tttt       | aaaagctg-----    |
| C.Bri | atttgc   | cgaaaaggacg...60...tactcttcatcacagatttt      | GTGA    | GGAGA   | TGCAAGC | TTCC  | -----ac | attcattttc | aaaaacca-----    |
| C.Bre | agaagcat | tgaaaaggacg...66...tccttacaatcctgtatct       | GGAGA   | TGCAAGC | TTCC    | CACA  | ----at  | cgaggttccc | aaattttgttttggat |
| C.Rem | cttggcat | cgaaaaggacg...72...-----cactacctgtatctggagag | TGCAAGC | GG      | TTCC    | CATT  | a-----  | attatc     | aaaagtt-----     |
|       | ****     | *****  | ****    | ****    | *****   | ***** | ****    | ****       | ***              |

id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087.1 type=EN

|       |          |  |        |       |       |        |       |                  |                    |           |            |          |
|-------|----------|--|--------|-------|-------|--------|-------|------------------|--------------------|-----------|------------|----------|
| C.Ele | tcttcag  | aatgcaagaag...46...ttggactcgaatttgtgtc     | GAATGT | GGAAA | GCTT  | tGATA  | TCTTC | -----            | tatcgctttgtgcaattg | gtgagggga |            |          |
| C.Bri | caattcag | agtacaagatag...53...caggatttgttctcgtatc    | -----  | GGGAA | GCTT  | tGATA  | TCTTT | ta               | TCGCT              | a-----    | tgtgcaattg | gtaatttc |
| C.Bre | ctttcag  | aatgcaagactg...49...--gattcagagtttgtgacgaa | TGTG   | GGAAA | GCTT  | tGATA  | TCTTC | -----            | tatcattgtgtgcaatcg | gtaatttt  |            |          |
| C.Rem | aatttcag | agtacaagaag...46...ttggactcgaatttgtgtc     | GAATGT | GGGAA | GCTT  | ttGATA | ----- | atctgctgaatttgtg | cgattg             | gtaaggat  |            |          |
|       | * **     | * * * * * *                                | **     | * * * | * * * | *****  | ****  | *                | *****              | * * *     |            |          |

id=14545 gene=Y48G1C.11 name=Y48G1C.11 segment=chrI.84614.84738.1 type=E5

Figure 85: CS=6.08



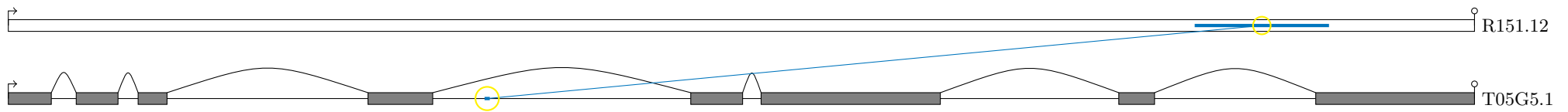
|       |          |  |           |      |                              |           |          |
|-------|----------|--|-----------|------|------------------------------|-----------|----------|
| C.Ele | tacagcat | cgaaaatggacg...66...tccttacgttacctgtatct | GGAGAGTGT | AAGC | gtttccaca-----               | tttattttt | aaaagctg |
| C.Bri | atttgcac | cgaaaagggacg...66...tcatcacagatttt       | GGAGAGTGT | AAGC | ggttccaca-----               | ttcattttc | aaaaacca |
| C.Bre | agaagcat | tgaaaagggacg...66...tctttacaatcctgtatct  | GGAGAGTGT | AAGC | ggttccacaatcgaggttccaaattttg | ttttt     | ggtgattt |
| C.Rem | cttggcat | cgaaaagggacg...66...tctttacactacctgtatct | GGAGAGTGT | AAGC | ggttccaca-----               | tttaattat | caaaagtt |
|       | ****     | *****                                    | ** * **   | ***  | *****                        | ** **     |          |

id=192609 gene=R151.12 name=R151.12 segment=chrIII\_7208957\_7209087\_1 type=EN

|       |           |                                  |               |       |       |          |                 |                               |          |
|-------|-----------|----------------------------------|---------------|-------|-------|----------|-----------------|-------------------------------|----------|
| C.Ele | ctttgagg  | taaggaagtga...667...--cccatgagtc | tctct--tcta   | GTTT  | ACAC  | ttTCTTT  | --tcacatttcactt | gtcaaaa...287...aaaatttcaga   | tcgttgaa |
| C.Bri | gttcgagg  | taggtattttg...186...---aatgagtc  | atctccatcta   | GTTT  | ACAC  | ttTCTTT  | --ccacatttcactt | gtcaaaa...574...aattgttcagg   | tagttgaa |
| C.Bre | gttcgagg  | tgagtgggatac...448...cccaatgact  | catct---tcta  | GTTT  | ACAC  | ACTCTCTT | ccacatttcactt   | gtcaaaa...1451...ttctattccagg | tcgtcgaa |
| C.Rem | gtttgagg  | tgagattttgat...252...--gcaatgact | catctca--tcta | GTTT  | ACAC  | ctTCTTT  | --ccacatttcactt | gtcaaaa...321...ataatttcaga   | tcgttgag |
|       | ** **** * | ****                             | *****         | ***** | *** * | *****    | *****           | * **                          | * ** *   |

id=156629 gene=B0285.7 name=mnp-1 segment=chrIII\_4357094\_4358127\_1 type=IN VIEW

Figure 86: CS=5.92



```

C.Ele  tacagcat cgaaaatggacg...65...ttccttacgttacctgt-atcTGGAGaGTGTCAAGcgtttccaca-----tttattttt  aaaagctg
C.Bri  atttgcac cgaaaaggacg...66...tcatcacagatTTTgtgaac-GGAGaGTGTCAAGcggttccac-----a-ttcattttc  aaaaacca
C.Bre  agaagcat tgaaaaggacg...65...ttccttacaatcctgt-atcTGGAGaGTGTCAAGcggttccacaatcgaggttccaaattttgtttt  ggtgatt
C.Jap  agtggcat cgaaaaggacg...65...ttccttacacaccctgt-atcTGGAGaGTGTCAAGcggttccacaatagacattatttaa-tttaattta  aatgatt-
      ****  *****  ** * **  * * * * *  *****  *****  **  ***

```

id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087.1 type=EN

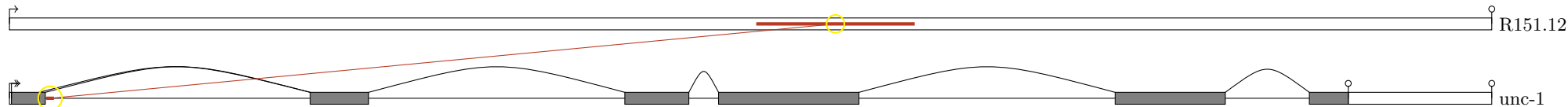
```

C.Ele  aacacgaa cagtattgaaa...89...tcgagcaagcagacacttgtTTTGaACACaTTCCA--caccaccaacgggagg--tgca----...956...atttcctctca  aaaaaata-
C.Bri  aacacgaa cagtattggaga...67...cagagaaagtagacacttgtTTTGaACACaTTCCactcccttccaacgggagg--t-----...847...-ttttctatttc  aaccacaac
C.Bre  aacatgaa cagtattggaag...62...cagagcaagaagacacttgtTTTGaACACaTTCCA-----ctagaggagg--tgcattttg...247...aattaacattg  acagaata-
C.Jap  aacacgaa cagtactggaga...77...tgggggtggcatcacttgtTTTGaACACaTTCCG-----atcgggcggattgatcgca...2073...-attaacctcc  actaactcc
      ****  ***  *****  ***  * * *  *****  *****  *  ***  **  *  **  *

```

id=226608 gene=T05G5.1 name=T05G5.1 segment=chrIII.9740958\_9742081\_-1 type=IN VIEW

Figure 87: CS=6.64



|       |          |   |        |       |       |                       |                         |          |
|-------|----------|---|--------|-------|-------|-----------------------|-------------------------|----------|
| C.Ele | tacagcat | cgaaaatggacg...26...aattttggtgcaaatagta | GAGAG  | ACGCA | gTGT  | actcttccttacgttac     | ctg...26...-acatttatttt | aaaagctg |
| C.Bri | atttgcat | cgaaaaggacg...26...aattttggtgcaaaagcata | GAGAgc | CGCA  | gTGT  | actcttcacacagattttg   | ...26...-acattcattttc   | aaaaacca |
| C.Bre | agaagcat | tgaaaaggacg...26...aattttggtgcaatagcata | GAGAgc | CGCA  | gTGT  | actcttcctttacaaatcctg | ...42...-aattttgtttt    | ggtgattt |
| C.Jap | agtggcat | cgaaaaggacg...26...aatttcggtgcaagaaata  | GAGAG  | GCGCA | gTGT  | actcttcctttacacaccctg | ...40...ttaaattaatt-t   | aaatgatt |
| C.Rem | cttggcat | cgaaaaggacg...26...aattttgatgcaagaata   | GAGAgc | CGCA  | gTGT  | actcttcctttacactacctg | ...26...-acatttaattat   | caaaagtt |
|       | ****     | *****                                   | *****  | ***** | ***** | *****                 | *****                   | *****    |

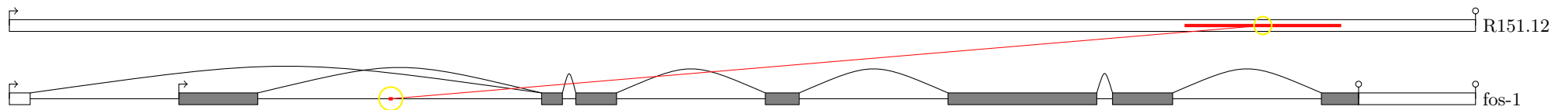
id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087\_1 type=EN

|       |          |           |   |          |
|-------|----------|-----------|---|----------|
| C.Ele | acAGCAag | TGCGTgTTC | actcaca---tttttcaaactcc...1650...taactttgcagg | atgtgcca |
| C.Bri | acAGCAag | TGCGTgTTC | attcaca---gtttttaaactcc...524...acatttttcagg  | atgtacca |
| C.Bre | acAGCAag | TGCGTgTTC | actcaca---ttttcaaactttc...1285...taaaaattcagg | atgtaccg |
| C.Jap | acAGCAag | TGCGTgTTC | actcacatcttttttcaaat---...181...aaaatttatagg  | atgttcct |
| C.Rem | acAGCAag | TGCGTgTTC | actcaca---tttttcaaatttc...1201...acgtttttcagg | atgtaccg |
|       | *****    | *****     | *****   | *****    |

id=111607 gene=K03E6.5 name=unc-1 segment=chrX.1060683\_1062374\_-1 type=IN

Figure 88: CS=7.8





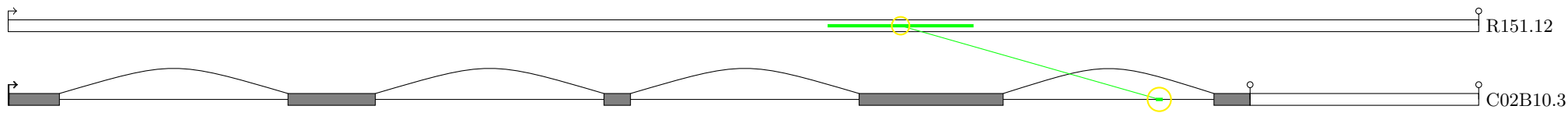
|       |          |   |      |       |        |                      |        |          |
|-------|----------|---|------|-------|--------|----------------------|--------|----------|
| C.Ele | tacagcat | cgaaaatggacg...65...tccttacgttacctgtatc | TGGA | AGTGT | AAGCGT | ttccac-----a-tttat   | ttt    | aaaagctg |
| C.Bri | atttgc   | cgaaaaggacg...66...tcatcacagattttgtgaac | GGAG | GTGT  | AAGCG  | ttccac-----a-ttcatt  | ttc    | aaaacca  |
| C.Bre | agaagcat | tgaaaaggacg...66...tctttacaatcctgtatct  | GGAG | GTGT  | AAGCG  | ttccacaatcgaggttccca | at     | ggtgatt  |
| C.Jap | agtggcat | cgaaaaggacg...65...ttctttacacaccctgtatc | TGGA | AGTGT | AAGCG  | ttccacaatagacattatt  | taa-tt | aatgatt- |
|       | ****     | *****                                   | **** | ***** | *****  | *****                | ****   | ****     |

id=192609 gene=R151.12 name=R151.12 segment=chrIII.7208957\_7209087\_1 type=EN

|       |          |   |           |             |  |          |      |
|-------|----------|---|-----------|-------------|--|----------|------|
| C.Ele | tcctgcag | gtatgatacatc...398...tcttaaaagaag-atgccgac---   | GTGTTT    | acACACTTCTA | cagtaatctat-ctatctttc...1798...actaatttcag   | ttccaacc |      |
| C.Bri | tgcagcag | gtatgaactctg...538...-taaaaggaagaatgccgacg---   | TGTTTACAC | CaCTTC      | tacagtaatctat-ccgtgct--...1314...gaaatattcag | ttcccaca |      |
| C.Bre | tcttgcag | gtatgataaaca...643...-ccaaaaagaag-acgccgaca---  | TGTTTACAC | CaCTTC      | ccagtaatctat-ccatctt--...1080...tgaatattcag  | ttccacc  |      |
| C.Jap | tcttgcag | gtatgccgctct...1743...---ttaggatg--tgccgacgcgtg | TGTTT     | acACACTTCTA | ccgtaatccataccgtccgt-...763...aaaaatttcag    | ttccacc  |      |
|       | * ****   | *****   | ****      | *****       | *****  | ****     | **** |

id=186599 gene=F29G9.4 name=fos-1 segment=chrV.6008807\_6011083\_1 type=IN

Figure 89: CS=5.04



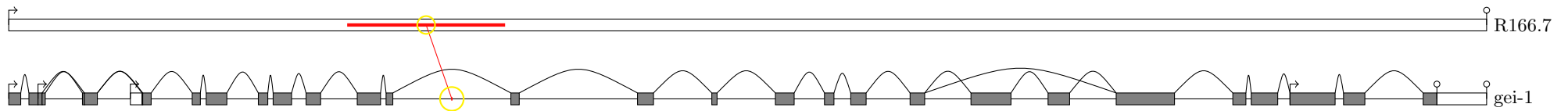
|       |          |   |         |        |  |                                       |           |           |          |
|-------|----------|---|---------|--------|--|---------------------------------------|-----------|-----------|----------|
| C.Ele | tacagcat | cgaaaatggacg...33...gtgcaaatagtagagagac | GCAGTGT | aCTCTT | ccttacgttacctgtatctggagagtgtcaagcgtttccaca | -----                                 | tttatttt  | aaaagctg  |          |
| C.Bri | atthcat  | cgaaaaggacg...33...gtgcaaatagtagagagcc  | GCAGTGT | aCTCTT | catcacagattttgtgaacggagagtgtcaagcgtttccaca | -----                                 | ttcattttc | aaaacca   |          |
| C.Bre | agaagcat | tgaaaaggacg...33...gtgcaaatagtagagagcc  | GCAGTGT | aCTCTT | ctttacaaatcctgtatctggagagtgtcaagcgtttccaca | atcgaggttccaaat                       | tttgtttt  | ggtgattt  |          |
| C.Rem | cttggcat | cgaaaaggacg...33...atgcaagaatagagagtc   | GCAGTGT | aCTCTT | cTTA                                       | cactacctgtatctggagagtgtcaagcgtttccaca | -----     | tttaattat | caaaagtt |
| ****  | ****     | ****                                    | ****    | ****   | ****                                       | ****                                  | ****      | ****      |          |

id=192609 gene=R151.12 name=R151.12 segment=chrIII\_7208957\_7209087\_1 type=EN

|       |          |   |          |      |        |                        |   |          |
|-------|----------|---|----------|------|--------|------------------------|---|----------|
| C.Ele | gacatgtc | acgtaagttgca...294...-----ccggttcgagacccttgaata | GAGAGa   | AACA | atCTGT | ----                   | cgata--agtaattagccacct...87...ttccattttgc | aggtgttc |
| C.Bri | gacatgtt | acgtaagttgac...2689...-----accxaaagtgcacccaccaa | AAGAGa   | AACA | atCTGT | ---                    | tcaaatatacattgagtaa---.67...tcatattcttgc  | aggtgttc |
| C.Bre | gacaagtc | acgtgagttatt...1044...ttttgtttctaagagactc-----  | AAGAGa   | AACA | atCTGT | tctccttcatcatcatt----- | tct...97...ttccattttgc                    | aggtgttc |
| C.Rem | gacatgtt | acgtaagttgtt...469...agaagatcctaagagagaac---    | TAAAGAGa | AACA | atCTGT | ---                    | tcaaaagagtaattag---tct...68...ctccattttgc | aggtgttc |
| ****  | ****     | ****  | ****     | **** | ****   | ****                   | ****                                      | ****     |

id=63123 gene=C02B10.3 name=C02B10.3 segment=chrIV\_5093578\_5094038\_-1 type=IN

Figure 90: CS=5.04



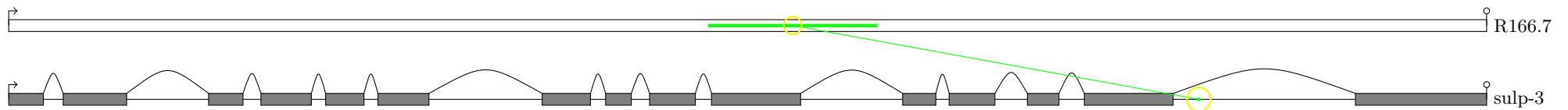
|        |          |                        |                |       |   |   |          |
|--------|----------|------------------------|----------------|-------|---|---|----------|
| C. Ele | attccac  | tcaaccaatcgttggttcaatt | CCTTct         | TATC  | TGCA                                      | ctcagtttggtcattgactg-...62...ggacgcgagat  | tgtgagac |
| C. Bri | ctgtcat  | gccgcaagccctagctcg-    | ATTCCTTc       | TATC  | TGCA                                      | cgcag-ttattcgatggctgt...60...agacaccgagat | tgtgtgaa |
| C. Bre | actctcat | ccgtacgctgttagttc-     | TATTCCTTCTTATC | TGCA  | cacagtttggtcattggctg-...61...agctatggagag | tgtttgaa                                  |          |
| C. Rem | ctcttcac | tctaatagcggttgttc-     | TATTCCTTCTTATC | TGCA  | ctcagtttggttattggctg-...61...ggatgtggagat | agtgtgaa                                  |          |
|        | **       | *                      | * * *          | ***** | *****                                     | ** * *                                    | ** **    |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269.-1 type=EN

|        |          |  |       |          |   |          |
|--------|----------|--|-------|----------|---|----------|
| C. Ele | tggctggt | gagtttttttt...1063...tgtcacatatttgcgcaaaa  | TGCGt | GATAGAGG | -----cggcccctgaacggaacaga-...1193...gaagtttcagaa  | cgagatgc |
| C. Bri | tatctggt | gagtcaacaata...249...tgtcacatatttgcgcaaaa  | TGCGt | GATAGAGG | cgGAGTgttctcattaacactagaat-...3067...tgattttcagaa | cgagatgc |
| C. Bre | tatccggt | tggtttttgttt...354...tgtcacatatttgcgcaaaa  | TGCGt | GATAGAGG | cgGAGTgttctcattaacaccgaaga...1227...aggtttacagaa  | agagatgc |
| C. Rem | tatctggt | gagttgttaciaa...255...tgtcacatatttgcgcaaaa | TGCGt | GATAGAGG | cgGAGTgttctcaataaaaaatggggt...1240...attatttcagaa | cgtgatgc |
|        | * * **   | **   | ***** | *****    | * * **  | ** ***** |

id=24830 gene=F45H7.2 name=gei-1 segment=chrIII.3348160.3350492.1 type=IN

Figure 91: CS=5.92



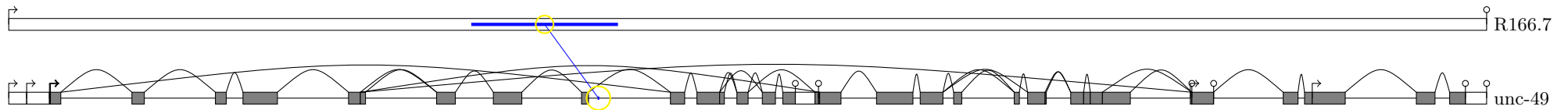
|       |          |   |   |              |          |
|-------|----------|---|---|--------------|----------|
| C.Ele | attccac  | tcaaccaatcgttggttcaattccttcttatcctgcactcagtttgttcattga--- | CTGTggAGCCtGGAAAtggaggagaaagtaattg...29...      | ggacgaggagat | tgtgagac |
| C.Bre | actctcat | ccgtac-gctgttagttctattccttcttatcctgcacacagtttg---ttca     | TGGCTGTggAGCCtGGAAAtggaggagaaataaaataa...28...  | agctatggagag | tgtttgaa |
| C.Jap | actctggt | tctagaggtcgtgcgatcgtttccttcttatcctgcacgagtttgttcattga---  | CTGTggAGCCtGGAAAtggaggagaaatcaatttga...31...    | agatgtgaagct | tgtgctgc |
| C.Rem | ctcttcac | tctaatagcggtt-gttctattccttcttatcctgcactcagtttg---ttga     | TGGCTGTggAGCCtGGAAAtggaggataaatgatattga...28... | ggatgtggagat | agtgtgaa |
|       |          | * ** * ** ***** ** * * ***** ** * *                       |   | * ** * **    | **       |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269\_-1 type=EN

|       |          |                      |   |           |              |          |
|-------|----------|----------------------|---|-----------|--------------|----------|
| C.Ele | ggagcaac | atatttcgtaag...37... | gtgggctcgaaccaccaaccTTTCGGTTaACAGccgaacgcctcctattgc---      | ...528... | accaactatatt | attccaga |
| C.Bre | agagcaaa | acatatcgtaag...31... | gtgggctcgaaccaccaaccTTTCGGTTaACAGCCGAacgcgctcctattgcgcca... | ...280... | atccgaaacttt | ttccaga  |
| C.Jap | cgaacaac | ttgtttcgtgag...52... | gtgggctcgaaccaccaaccTTTCGGTTaACAGccgaacgcctcctattgc---      | ...344... | aaaaaaccttt  | attccaga |
| C.Rem | cgagcaga | ctatttcgtgag...34... | gtgggctcgaaccaccaaccTTTCGGTTaACAGCCGAacgcgctcctattgcgcca... | ...260... | taaaattttat  | aattcaga |
|       | ** **    | * **** *             | *****   |           | *            | * ****   |

id=37008 gene=F41D9.5 name=sulp-3 segment=chrX.8403910.8404551\_-1 type=IN

Figure 92: CS=5.32



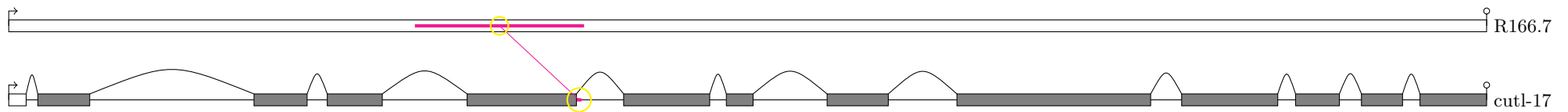
|        |          |                                    |      |                 |                       |                         |          |
|--------|----------|------------------------------------|------|-----------------|-----------------------|-------------------------|----------|
| C. Ele | attccac  | tcaaccaatcgttggttcaattccttcttatcc  | TGCA | ctCAGTTTGT      | cattgactgtggagcctgga  | ---...51...ggacgaggagat | tgtgagac |
| C. Bre | actctcat | ccgtacgc-tgttagttctattccttcttatcc  | TGCA | cACAGTTTGTTC    | cattggctgtggagcctggaa | ---...49...agctatggagag | tgtttgaa |
| C. Jap | actctggt | tctagaggtcgtgcgacgcttcttcttatcc    | TGCA | cGCAGTTTGTTCATT | gactgtggagcctggaaatg  | ...49...agatgtgaagct    | tgtgctgc |
| C. Rem | ctcttcac | tctaataag-cggttgttctattccttcttatcc | TGCA | ctCAGTTTGTG     | attggctgtggagcctggaa  | ---...49...ggatgtggagat | agtgtgaa |
|        |          | *                                  | *    | *               | *                     | *                       | *        |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269\_-1 type=EN

|        |          |   |             |   |       |   |   |       |    |   |   |       |
|--------|----------|---|-------------|---|-------|---|---|-------|----|---|---|-------|
| C. Ele | cactgttt | cttgatcc-----tcattc-----tcacacctcag-tgcgtgggg-----gtccttttggtatatattc-----GACAAATTG                           | TGCA        | attgacgaa-tcacctcgctt---...878...gcttcatgat     |       |   |   |       |    |   |   |       |
| C. Bre | aaatgatt | tctgatccaatccgaagatccaatcaattcaattcttctcaccttcatttctcttgatgcgtgggg-----gtccttttcac---ctc-----GGACAAATTG       | TGCA        | atcatct---tcatatctctttt...1100...gttccatgat     |       |   |   |       |    |   |   |       |
| C. Jap | -----c   | tttgattccttccggat-----tcttttttt---tgcgtggggcgtctaattttctcgcaa-----AGTG  | gtGACAAATTG | TGCAatcattgcgatcaatccaat---...2031...gcttcatgat |       |   |   |       |    |   |   |       |
| C. Rem | tcaagatt | tctgatcctccaaatcaatta-----tcatgtcttcttcaccttttcttat-tgcgtgggg-----gtccctctc---tattccattggtatatgtagagagtcctatg | CGACAAATTG  | TGCAatt---cgtg-tcggcacatccat...511...gttccatgat |       |   |   |       |    |   |   |       |
|        |          | **** *  | *           | *   | ***** | * | * | ***** | ** | * | * | ***** |

id=325487 gene=T21C12.1 name=unc-49 segment=chrIII.10525844.10526822.1 type=IN

Figure 93: CS=5.32



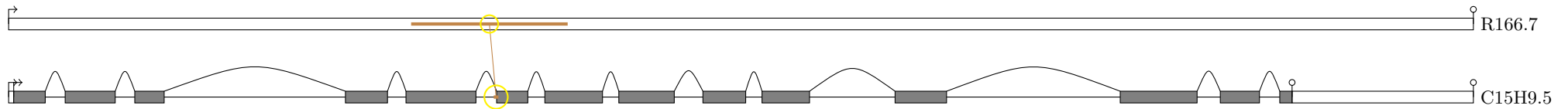
|       |          |                             |           |        |         |                          |       |              |          |
|-------|----------|-----------------------------|-----------|--------|---------|--------------------------|-------|--------------|----------|
| C.Ele | attccac  | tcaaccaatcgttggttcaattccttc | T--TATC   | TGCA   | ctCAGTT | tgttcattgactgtggagcc...  | 55... | ggacgcggagat | tgtgagac |
| C.Bri | cttgtcat | gccgcaagcc-ctagctcgattcc--  | TTCATATCC | tGCAC  | gcCAGTT | -attcgatggctgtggagcct... | 53... | agacaccgagat | tgtgtgaa |
| C.Bre | actctca- | tccgtacgctgttagttctattccttc | T--TATCC  | tGCAC  | acAGTT  | tgttcattggctgtggagcc...  | 54... | agctatggagag | tgtttgaa |
| C.Jap | actctggt | tctagaggtcgtgcatcgtttccttc  | T--TATC   | ctGCAC | gcCAGTT | tgttcattgactgtggagcc...  | 57... | agatgtgaagct | tgtgctgc |
|       | *        | *                           |           |        |         | *                        | *     | *            | *        |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269.-1 type=EN

|       |          |         |       |                         |                  |                         |                |                  |       |          |
|-------|----------|---------|-------|-------------------------|------------------|-------------------------|----------------|------------------|-------|----------|
| C.Ele | tAATTGTG | CAGATGG | ----- | tgggttttaaaattgaaaaaat  | -----            | :::::tt                 | -----          | aatttaagtttaaatg | ----- | tttcagtc |
| C.Bri | tAATTGTG | CGGATGG | TGAG  | tcaaaaaagtgtagttggttttt | gaaataaaaaaaataa | :::::tttccagaattaatattc | gaaaatatttcctt |                  |       | ttccagtt |
| C.Bre | tAATTGTG | CGGATGG | ----- | tgagtttttttctctgaaaa    | -----            | :::::ttcgatgaatttttctt  | -----          | at               |       | ttccagtg |
| C.Jap | tAATTGTG | CtGATGG | ----- | taagaaa                 | -----            | :::::ttttaataatt        | -----          | tt               |       | gtacagta |
|       | *****    | * ****  |       |                         |                  | ***                     | *              | **               | *     | ***      |

id=163333 gene=F38E11.4 name=cutl-17 segment=chrIV.9455898.9456019.-1 type=IN

Figure 94: CS=6.52



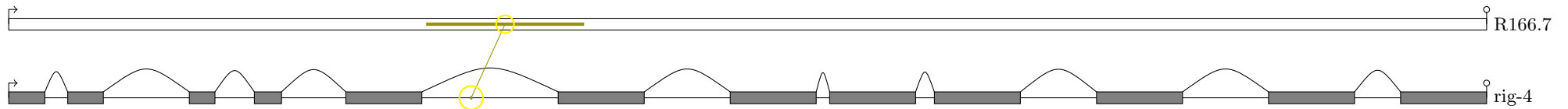
|       |          |                               |       |        |           |                            |        |                        |          |              |          |
|-------|----------|-------------------------------|-------|--------|-----------|----------------------------|--------|------------------------|----------|--------------|----------|
| C.Ele | attccac  | tcaaccaatcgttggttcaattccttct  | TATC  | TGCAC  | TCAGT     | ttgttcattgactgtggagc-----  | ..56.. | ggacgaggagat           | tgtgagac |              |          |
| C.Bri | cttgtcat | gccgca-agccctagctcgattccttc   | ATATC | TGCAC  | GCAGTTATT | -cgatggctgtggagcctgga----- | ..50.. | agacaccgagat           | tgtgtgaa |              |          |
| C.Bre | actctcat | ccgtac-gctgttagttctattccttct  | TATC  | TGCACa | CAGT      | ttgttcattggctgtggagc-----  | ..55.. | agctatggagag           | tgttgaa  |              |          |
| C.Rem | ctcttcac | tctaata-agcggttgttctattccttct | TATC  | TGCACt | CAGT      | ttGTTG                     | TTGG   | ctgtggagcctggaaatgga.. | ..44..   | ggatgtggagat | agtgtgaa |
|       | **       | *                             | *     | *      | *         | *                          | *      | *                      | *        | *            | *        |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269.-1 type=EN

|       |          |  |         |          |            |          |
|-------|----------|--|---------|----------|------------|----------|
| C.Ele | aacgtaag | caac-tatttcatttga--cgtcagtttctaattccttatttat-----  | ATTGA   | TGCAGATG | tgc        | gattcgat |
| C.Bri | aacgtaag | cgacttatttc--ctga---attagcaactagatct-----          | AATATTG | TGCAGATG | tgc        | gatccggt |
| C.Bre | aacgtaag | aaac---attcatataa--catcagtct---atcctaa-ctaata----- | ATTG    | TGCAGATG | tgc        | gatccggt |
| C.Rem | aacgtaag | aaa-----atataaacataattca---attcaagctgcttc          | CTAG    | TAATATTG | ctTGCAGATG | tatccgat |
|       | *****    | *  | *       | *        | *          | *****    |

id=173584 gene=C15H9.5 name=C15H9.5 segment=chrX.6094653.6094709.1 type=IN

Figure 95: CS=5.04



|       |          |                                 |           |         |                              |              |          |
|-------|----------|---------------------------------|-----------|---------|------------------------------|--------------|----------|
| C.Ele | attccac  | tcaaccaatcgttggttcaattccttctt   | ATCCTGCAC | gCAGTT  | tgttcattgactgtggagcc--..55.. | ggacgaggagat | tgtgagac |
| C.Bri | cttgtcat | gccgcaag-ccttagctcgattccttcat   | ATCCTGCAC | gCAGTTA | -ttcgaaggctgtggagcctg..52..  | agacaccgagat | tgtgtgaa |
| C.Bre | actctcat | ccgtacgc-tgtagttctattccttctt    | ATCCTGCAC | AcAGTT  | tgttcattggctgtggagcc--..54.. | agctatggagag | tgtttgaa |
| C.Jap | actctggt | tctagaggtcgtgcgatcgtttccttctt   | ATCCTGCAC | gCAGTT  | tgttcattgactgtggagcc--..57.. | agatgtgaagct | tgtgctgc |
| C.Rem | ctcttcac | tctaataag-cggttggttctattccttctt | ATCCTGCAC | tcAGTT  | tgttgattggctgtggagcc--..54.. | ggatgtggagat | agtgtgaa |
|       | *        | * ** *****                      | *****     | *****   | ** ** *****                  | *            | ** **    |

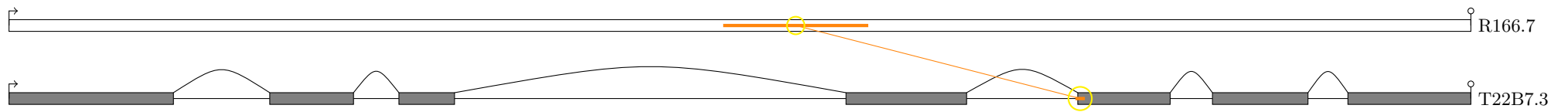
id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269\_-1 type=EN

|       |          |                 |        |                        |                |            |                     |           |              |          |
|-------|----------|-----------------|--------|------------------------|----------------|------------|---------------------|-----------|--------------|----------|
| C.Ele | gaacggat | taatggtgagt...  | 241... | -gtcatcatctt-ttcgtact  | AATTGTGCAGGAT  | tacgtac--- | ttctcgaaccat---     | ...559... | atttattat    | tccagatg |
| C.Bri | gaacggat | taatggttagta... | 341... | taacgtcttcctc-gcagtac  | TAATTGTGCTGGAT | tacg-----  | tactcgaagccggtt...  | 350...    | aaaccatgatt  | tctagatg |
| C.Bre | gaacggat | tagtggttagta... | 296... | --tcctcctcgtcattcgtact | AATTGTGCTGGAT  | tacg-----  | tactcgaagccatcta... | 413...    | aaaactattact | tccagatg |
| C.Jap | gaatgggc | ttatggttagta... | 303... | -tccgtcctcatc-tttgtact | AATTGTGCTGGAT  | tacgtacata | tactcgaagc-----     | 1679...   | ggataaattg   | tccagatg |
| C.Rem | gaacggat | taatggttagtc... | 330... | -tccttcttcac-gtcgtact  | AATTGTGCTGGAT  | tacg-----  | tactcgaagccagttt... | 340...    | taccatattct  | tccagatg |
|       | ** **    | * ** **         |        | * ** ** *              | *****          | *****      | * ** ** *           |           | ** **        | ** **    |

id=322750 gene=Y42H9B.2 name=rig-4 segment=chrIV.8000154.8001030\_-1 type=IN

Figure 96: CS=6.3





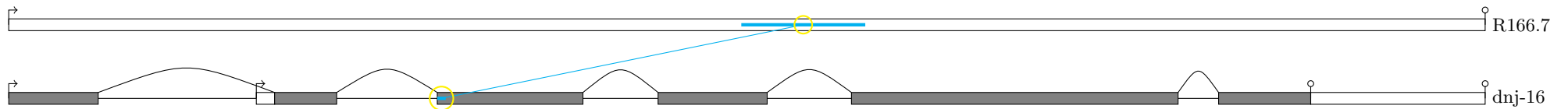
|        |          |   |                           |   |  |            |
|--------|----------|---|---------------------------|---|--|------------|
| C. Ele | attccac  | tcaaccaatcgttggttcaattccttcttatcctgcactcagtttggttcattgact   | GTGGAGCCTGGAAtGGAG        | -----gagaaagtaaat   | tgatgattactaataactt--cgctgcttttagaggacgaggagat | tgtgagac   |
| C. Bre | actctcat | ccgtacgc-tgtagttctattccttcttatcctgcacacagtttggttcattggct    | GTGGAGCCTGGAATGGAGGAGAAAT | taaaataa-----gaataacaatgtct--tcattccttatagagctatggagag              | tggttgaa                                       |            |
| C. Jap | actctggt | tctagaggtcgtgcgacgcttcttcttatcctgcacgcagtttggttcattgact     | GTGGAGCCTGGAATGgaGGAG     | -----aatcaatttgaggggtgctaataatgcggcatgtcttcttctgaagatgtgaagct       | tggtgctgc                                      |            |
| C. Rem | ctcttcac | tctaataag-cggttggttctattccttcttatcctgcactcagtttggttgattggct | GTGGAGCCTGGAATG           | -----gaggataaatgatattgaaggagtgtctattact---tgacgtcttctgaggatgtggagat | agtggtgaa                                      |            |
|        |          | * * * * *   | *****                     | ***   | * * * *  | *** * * ** |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269.-1 type=EN

|        |          |   |                 |                |          |
|--------|----------|---|-----------------|----------------|----------|
| C. Ele | aaggtttg | tttattagaaaa...94...-----gatatttaattat-gtcggca----- | CTTTTTTCAGGTTCT | ACcacata       |          |
| C. Bre | aaggtttg | tttattataaag...118...-----atattaattgaatccggctgc     | ATTTTTCaTTCA    | TTTTTTCAGGTTCT | ACcacatt |
| C. Jap | aaggtttg | tgaatgaaaaa...57...tagttagtaatttacttaaa-----        | CTCCga          | TATTTCCAGGTTCT | ACcacatt |
| C. Rem | aaggtttg | tttattagaaaa...99...-----atatttaattatagtaaaa-----   | TGTTTTTCAGGTTCT | ACcacata       |          |
|        | *****    | * * * * *   | ***** **        | * * * * *      | *****    |

id=250966 gene=T22B7.3 name=T22B7.3 segment=chrX.5649522.5649663.1 type=IN

Figure 97: CS=5.04



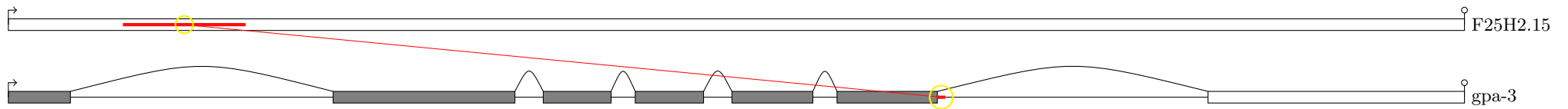
|       |          |   |                    |  |          |
|-------|----------|---|--------------------|--|----------|
| C.Ele | attccac  | tcaaccaatcgttggttcaattccttcttatcctgcactcagtttggtcattgactg   | TGGAGCCTGGAAATGGA  | ggagaaagtaatttgatga--...25...ggacgcggagat    | tgtgagac |
| C.Bre | actctcat | ccgtacgc-tgtagttctattccttcttatcctgcacacagtttggtcattggctg    | TGGAGCCTGGAAAT     | ggaggagaaataaaataa----...27...agctatggagag   | tgtttgaa |
| C.Jap | actctggt | tctagaggcgtgcatcgatcgtttccttcttatcctgcacgcagtttggtcattgactg | TGGAGCCTGGAAATGGAG | ggagaaa-tcaatttgaggggg...26...agatgtgaagct   | tgtgctgc |
| C.Rem | ctcttcac | tctaataag-cggttgttctattccttcttatcctgcactcagtttggtgattggctg  | TGGAGCCTGGAAAT     | ggaggataaatgatattgaa----...27...ggatgtggagat | agtgtgaa |
|       |          | * * * ** *****  |                    | *** * * *                                    | **       |

id=201299 gene=R166.7 name=R166.7 segment=chrII.10545139.10545269.-1 type=EN

|       |          |   |                |           |
|-------|----------|---|----------------|-----------|
| C.Ele | gaaaatgg | taattaatttt...109...--tcgaaattaataga--aattaa    | TTCATTTCCAGG   | CgTCCGag  |
| C.Bre | gagatcgg | tgagtgggaaag...255...-ttcaatttcaataaa--aaaa---  | ATTTCCAGG      | cCTCCGaa  |
| C.Jap | aaaactgg | tatcgattttat...1993...ttt---atttaagagagcaaaaca  | TTCTAATTTCCAGG | cCTCCGaa  |
| C.Rem | aaaatcgg | tgagtgaacaaa...513...tttccccatcacta-a--aatca--- | ATTTCCAGG      | CtTCCGaa  |
|       | * * ** * |   | * * * * * *    | * ** ** * |

id=145139 gene=R74.4 name=dnj-16 segment=chrIII.4191617\_4191770.1 type=IN

Figure 98: CS=5.92



```

C.Ele gagaccat actaTACAGAatCATTTCTGCAgtatgtatctcgttaattccc...124...cttctgagcagt tataaatg
C.Bri gagaccat actaTACAGAatCATTTCTGCAgtatgtatctcgttaattccc...123...cttctgagcgga tataaatg
C.Bre gagaccat actaTACAGAatCATTTCTGCAgtatgtatctcgttaattccc...123...cttctgagcgga taaaaagg
C.Jap gagaccat actaTACAGAatCATTTCTGCAgtatgtatctcgttaattccc...126...cctctgagcagt tttttata
*****

```

id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

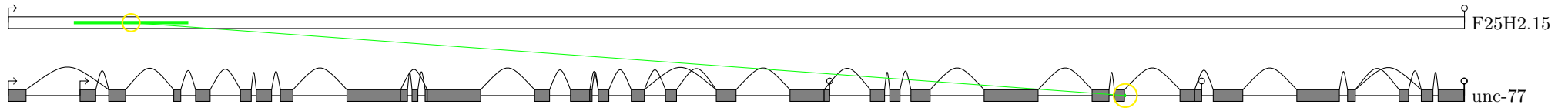
```

C.Ele tGTActGA AATGTTTGTGcctttctctctctctctctt...619...ttcttttgcttt caggcctc
C.Bri tGTActGA AATGTTTGTGcctttctctctccccctctct...438...ttttctgcttt caggcctc
C.Bre tGTActGA AATGTTTGTGcctttctctctccccctctct...143...ctttactgcttt caggcctc
C.Jap tGTActGA AATGTTTGTGcccatccctttcatgatctc...70...ttgattgttttt caggcttg
*****

```

id=62462 gene=E02C12.5 name=gpa-3 segment=chrV\_9357047\_9357707\_-1 type=I3

Figure 99: CS=5.12



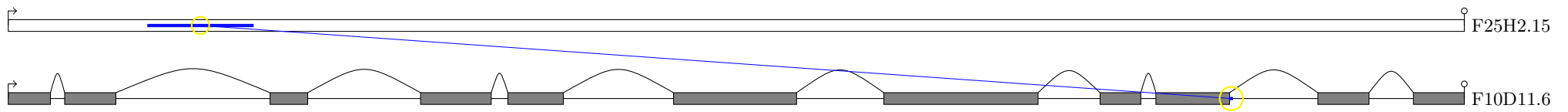
|       |          |                 |   |          |
|-------|----------|-----------------|---|----------|
| C.Ele | gagaccaT | ACTATACagAATCAT | ttctgcagtatgtatctcgt...131...cttctgagcagt | tataaatg |
| C.Bri | gAGACcaT | ACTATACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcgga | tataaatg |
| C.Bre | gagaccaT | ACTATACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcgga | taaaaagg |
| C.Jap | gagaCCAT | ACTATACagAATCAT | ttctgcagtatgtatctcgt...133...cctctgagcagt | tttttata |
| C.Rem | gAGACcaT | ACTATACagAATCAT | ttctgcagtatgtatctcgt...130...cttctgagcagt | tatattaa |
|       | *****    | *****           | * ***** *                                 | *        |

id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

|       |          |                |  |                             |                    |
|-------|----------|----------------|--|-----------------------------|--------------------|
| C.Ele | gcATGATT | GTATGGTG       | ----agtgaactaccttgaacttttatcaaa-----         | :::::aaaagtattttatctgtctatt | t-----tcagaga---   |
| C.Bri | gcATGATT | GTATGGTGaGTTT  | -----  | :::::-----att               | t-----tcagaga---   |
| C.Bre | gcATGATT | GTATGGTG       | ----agtga-----                               | :::::-----taaactatt         | t-----tcagaga---   |
| C.Jap | gcATGATT | GTATGGTaaGTGG  | ctgtgtttaatcccagagttaaacgacctctggttaatt::::: | -----ttgggcaatt             | ttatggtatcaaaaaata |
| C.Rem | gcATGATT | GTATGGTaaGTTTC | -----  | :::::-----gtctatt           | t-----tcagaga---   |
|       | *****    | *****          |  |                             | *** ** *           |

id=21079 gene=C11D2.6 name=unc-77 segment=chrIV\_6160438\_6161006\_-1 type=IN

Figure 100: CS=6.3



|       |         |           |              |                 |                 |              |              |              |              |
|-------|---------|-----------|--------------|-----------------|-----------------|--------------|--------------|--------------|--------------|
| C.Ele | gagacat | actatacag | <b>AATC</b>  | <b>TTCTGCAG</b> | tatgtatctc      | gtaattcca... | 123...       | cttctgagcagt | tataaatg     |
| C.Bri | gagacat | acta      | <b>TACAg</b> | <b>AATC</b>     | <b>TTCTGCAG</b> | tatgtatctc   | gtaattcca... | 122...       | cttctgagcgg  |
| C.Bre | gagacat | actataca  | <b>GAATC</b> | <b>TTCTGCAG</b> | tatgtatctc      | gtaattcca... | 122...       | cttctgagcgg  | taaaaagg     |
| C.Rem | gagacat | acta      | <b>TACAg</b> | <b>AATC</b>     | <b>TTCTGCAG</b> | tatgtatctc   | gtaattcca... | 122...       | cttctgagcagt |

\*\*\*\*\* \* \*\* \*

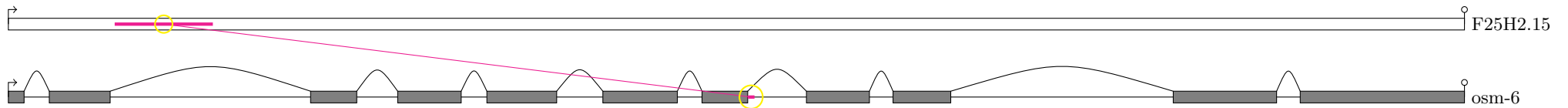
id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI.10565255-10565432\_1 type=EN

|       |   |                |                 |  |                                       |          |          |
|-------|---|----------------|-----------------|--|---------------------------------------|----------|----------|
| C.Ele | t | <b>TGCAGAA</b> | <b>GGTT</b>     | ----agaaaaa-----                         | .....-aaaaaccatttttaaaatattt          | --ttata  | ggttgcta |
| C.Bri | t | <b>TGCAGAA</b> | <b>GGTTTGTG</b> | attagaaaacaatcagacaagaatgagtctctagcagaga | .....-gaattcgtttaatatttca             | ggttgcta |          |
| C.Bre | t | <b>TGCAGAA</b> | <b>GGTTT</b>    | -----                                    | .....-tttta                           | ggttgcca |          |
| C.Rem | t | <b>TGCAGAA</b> | <b>GGTTTGTG</b> | aggaggagagagtgattcagaatttataatcaacaat-   | .....gattcgtcacatctcaaattttcatcattcca | ggttgcca |          |

\*\*\*\*\* \* \*\* \*

id=201778 gene=F10D11.6 name=F10D11.6 segment=chrI.8445918-8446203\_-1 type=IN VIEW

Figure 101: CS=6.52



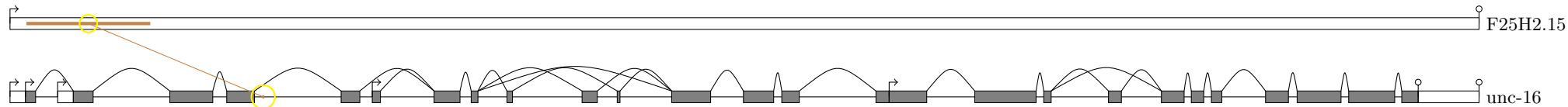
|       |          |                     |   |           |
|-------|----------|---------------------|---|-----------|
| C.Ele | gAGAccAT | ACTaTACAGAATCaTTTCT | gcagtatgtatctcgtaatt...127...cttctgagcagt | tataaatg  |
| C.Bri | gagaccat | actaTACAGAATCaTTTCT | gcagtatgtatctcgtaatt...126...cttctgagcggg | tataaatg  |
| C.Jap | gagaccat | actaTACAGAATCaTTTCT | gcagtatgtatctcgtaatt...129...cctctgagcagt | ttttata   |
| C.Rem | gagaccat | actaTACAGAATCaTTTCT | gcagtatgtatctcgtaatt...126...cttctgagcagt | tatattaa  |
|       | *****    | *****               | *****                                     | * * * * * |

id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

|       |          |                   |   |           |
|-------|----------|-------------------|---|-----------|
| C.Ele | gGAAAGAT | TtTTGTAAGTGTaTTTT | tgatatggt-----tcgaataaaacttccccggttggttgaggcgtgcaggatgcgcctcccaccgcctcttaactcgcttattgaaaatttcaatt | tcaggata  |
| C.Bri | gGAAAGAT | TtTTGTA           | ggt-----cttt-----tgatt-----tttgatttttcc-----atataaatt   | tcaggata  |
| C.Jap | gGAAAGAT | TtTTGTA           | aga-----accctacattctttcaaatttt-----tttgaacatttcc-----tctgct                                       | ttaggaca  |
| C.Rem | gGAAAGAT | TtTTGTG           | agttgtttctctcggaataactctttcaa-----aaaacttcc-----tagttt  | ccaggaca  |
|       | ** ***** | *****             | * * * * *   | * * * * * |

id=304915 gene=R31.3 name=osm-6 segment=chrV\_11925867\_11925978\_-1 type=IN

Figure 102: CS=5.64



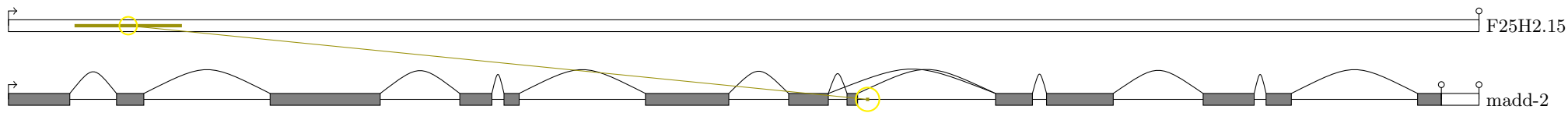
|       |         |            |                           |                            |              |              |          |
|-------|---------|------------|---------------------------|----------------------------|--------------|--------------|----------|
| C.Ele | gAGACCA | ACTATACAGA | atcatttctgcagtatgtat----- | ...136...                  | cttctgagcagt | tataaatg     |          |
| C.Bri | gAGACCA | ACTA       | taCAGA                    | atcatttctgcagtatgtat-----  | ...135...    | cttctgagcggg | tataaatg |
| C.Bre | gAGACCA | ACTA       | taCAGA                    | atcatttctgcagtatgtat-----  | ...135...    | cttctgagcggg | tataaatg |
| C.Jap | gAGACCA | ACTA       | taCAGAATCAT               | ttctgcagtatgtatctcgt...    | ...133...    | cctctgagcagt | ttttata  |
| C.Rem | gAGACCA | ACTA       | taCAGAA                   | atcatttctgcagtatgtatc----- | ...134...    | cttctgagcagt | tataata  |
|       | *****   | *****      | *****                     |                            |              | * ***** *    | *        |

id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

|       |            |                             |                         |                         |                   |                        |                        |              |             |          |    |   |
|-------|------------|-----------------------------|-------------------------|-------------------------|-------------------|------------------------|------------------------|--------------|-------------|----------|----|---|
| C.Ele | --taatttaa | ttaaatttaaaaa               | agtattaatattgactgtgtgt  | ----cg-----             | TTGTTGTAGTTGGTTTC | caatcacatcgcttacat...  | 544..                  | gggcatggctgc | ttctgtgg    |          |    |   |
| C.Bri | -----      | -tgattcttttaa               | -tcttcaatttgaccgtcgtga  | ----tgtc-----           | TTTGTAGTTGGTTTC   | caatctcgatcgcttgcat... | 266..                  | gggaatggccgc | ttctgtcg    |          |    |   |
| C.Bre | -----      | tata                        | ttcgtttttttaa           | -gctttattcttgactgtcgtgc | ----tgcg-----     | TTTGTAGTTGGTTTC        | cgatctcgatcgattgcat... | 259..        | gggatggcagc | ttcagtag |    |   |
| C.Jap | ----tttatg | gacaacatttagatgattttggtgtga | actttctgaaatgcgttt      | GTGATcg                 | TTTGTAGTTGGTTTC   | cgatctcgatcgcttgcat... | 204..                  | gggaatggccgc | gtcggtag    |          |    |   |
| C.Rem | gttgattt-- | ttcaatttcaaaa               | -ttctctata-ttgactgtgtgc | ----cgtc-----           | TTTGTAGTTGGTTTC   | caatctcgatcgcttgcat... | 396..                  | gggcatggctgc | ttcagtag    |          |    |   |
|       |            | *                           | *                       | *                       | *                 | **                     | *                      | **           | *           |          |    |   |
|       |            |                             |                         |                         |                   | *****                  | **                     | **           | *****       | **       | ** | * |

id=322014 gene=ZK1098.10 name=unc-16 segment=chrIII\_9547847\_9548480\_1 type=IN

Figure 103: CS=5



```

C.Ele gagaccat ACTATACAgAATCATTtctgcagtatgtatctcgta...130...cttctgagcagt tataaatg
C.Bri gagaccat ACTATACAgAATCATTtctgcagtatgtatctcgta...129...cttctgagcggga tataaatg
C.Bre gAGACcaT ACTATACAgAATCATttctgcagtatgtatctcgt-...130...cttctgagcggga taaaaagg
C.Rem gagaccat ACTATACAgAATCATTtctgcagtatgtatctcgta...129...cttctgagcagt tatattaa
*****

```

id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

```

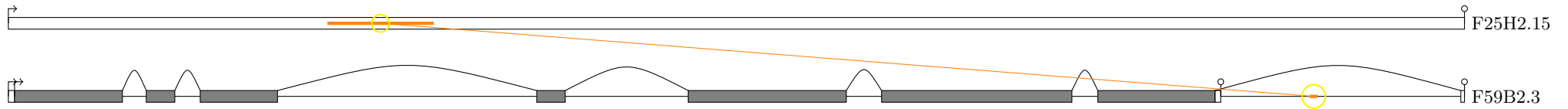
C.Ele tcgagagg tag---agatactaattgata-ttatacAGTGATTGTGaTAGT-----cttttttgtgaaaccacct...663...cgtgctttcagt cccatctg
C.Bri tccagagg tagattaaataaaaatcgatattttacAGTGATTGTGaTAGTA-gttgtatcaattttgattg-----...184...aatattttcagt accatcag
C.Bre tcaagagg t-----agat-attattaata-cgttc-GTGATTGTGaTAGTAGTTTTtatttttttattcgtggg-----...214...tgttgtttcagt accatcgg
C.Rem tcaagagg t-----agatcaaaattgatattgatcAGTGATTGTGaTAGT-----tccttatttttatt-gtgacc-----...106...aaaatttgagt tccttcgg
** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=72007 gene=C39F7.2 name=madd-2 segment=chrV\_1226109\_1226842\_-1 type=IN

Figure 104: CS=5.84





|       |         |                             |          |       |      |   |          |
|-------|---------|-----------------------------|----------|-------|------|---|----------|
| C.Ele | gagacat | actatacagaatcatttctgcagtatg | TATCTCGT | aATTC | CATC | aaattggtagagatgccaac...101...cttctgagcagt | tataaatg |
| C.Bri | gagacat | actatacagaatcatttctgcagtatg | TATCTCGT | aATTC | CATC | aaattggtagagatgccaac...100...cttctgagcagg | tataaatg |
| C.Bre | gagacat | actatacagaatcatttctgcagtatg | TATCTCGT | aATCC | CATC | aaattggtagagatgccaac...100...cttctgagcagg | tataaatg |
| C.Jap | gagacat | actatacagaatcatttctgcagtatg | TCGT     | aATTC | CATC | aaattggtagagatgccaac...103...cctctgagcagt | ttttata  |
| C.Rem | gagacat | actatacagaatcatttctgcagtatg | TATCTCGT | aATCC | CATC | aaattggtagagatgccaac...100...cttctgagcagt | tatattaa |

\*\*\*\*\*

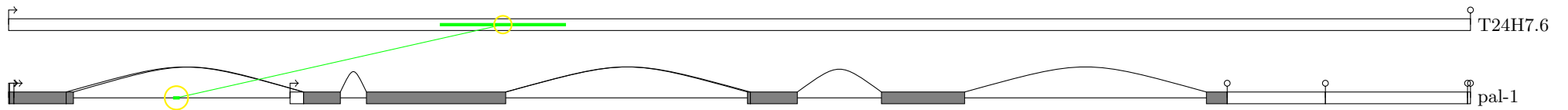
id=263946 gene=F25H2.15 name=F25H2.15 segment=chrI\_10565255\_10565432\_1 type=EN

|       |          |                         |                      |      |         |        |        |  |          |
|-------|----------|-------------------------|----------------------|------|---------|--------|--------|--|----------|
| C.Ele | atatttct | tgttctcatcta--...132... | gggcggtaccgtcgaagga  | GATG | ctGAAT  | ccATGA | atGATG | gtaggctttgtacaaccg...245...aatccatgttc   | aatgccgg |
| C.Bri | atatttac | tacactgcctt--...144...  | gggcggtgacggtcgaagga | GATG | caGAAT  | cgATGA | acGATG | gaagggcgtggtgcaaccg...274...aatcgatgttc  | aacgccgg |
| C.Bre | caactgcc | tgttctgtcta--...121...  | gggcggtgacgaccgaagga | GATG | ccGGAAT | cgATGA | atGATG | gaagagcgttgttacagcca...129...aatcaatgttc | aatgccgg |
| C.Jap | ttacatct | tgtgaataaatt--...137... | ggtcaccgactgtgaagga  | GATG | ccGAAT  | cgATGA | atGATG | gaagagcgttgttacagcca...120...aatcaatgttc | aatgccgg |
| C.Rem | aaatttct | --ttattatcaaac...134... | gggcggtgacggtcgaagga | GATG | ccGGAAT | cgATGA | atGATG | ggagagccttgtacaaca...106...aatccatgttc   | aatgccgg |

\* \* \* \* \*

id=17145 gene=F59B2.3 name=F59B2.3 segment=chrIII\_8996348\_8996810\_-1 type=I3

Figure 105: CS=5



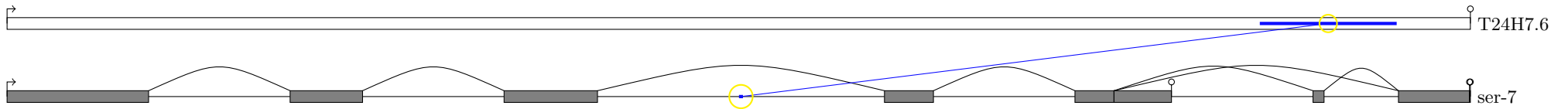
|       |          |                                    |                 |                 |                           |                           |              |              |          |
|-------|----------|------------------------------------|-----------------|-----------------|---------------------------|---------------------------|--------------|--------------|----------|
| C.Ele | ctccaacc | cggacaactcgcaactgttgcaatggctcagtt  | <b>CGACTGTT</b> | <b>aGAGA</b>    | cgctaataagaaaattggc-----  | ..61..                    | taaatttcagaa | aagagatc     |          |
| C.Bri | ctccaacc | cggacaactcgcaacatgttgcaatggctctggt | <b>CGACTGTT</b> | <b>aGAGA</b>    | cgctagataagaaaattggt----- | ..64..                    | ttttttcagga  | aggaaatc     |          |
| C.Bre | ctccaacc | cggacatcgcaactgttgcccttgg          | <b>TTGGT</b>    | <b>CGACTGTT</b> | <b>aGAGA</b>              | cgctagatgagaaaattggc----- | ..61..       | tcattttcagga |          |
| C.Rem | ctccaacc | cggacaactcgcaactgttgccatggctctggt  | <b>CGACTGTT</b> | <b>aGAGA</b>    | <b>cGCAA</b>              | tataatgaatttggcgcattt...  | ..54..       | ctattttcagga | aagaaatt |
| ***** | *****    | *****                              | ****            | *****           | * * * * *                 | *****                     | *            | * * * *      |          |

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII.6248686.6248824\_1 type=EN

|        |          |                   |                |       |                         |                  |                    |                           |                         |             |              |          |
|--------|----------|-------------------|----------------|-------|-------------------------|------------------|--------------------|---------------------------|-------------------------|-------------|--------------|----------|
| C.Ele  | tcctctga | ggctagatcttc----- | ..166..        | ----- | tttgctaaccatgtatttat    | <b>TCTCaAATA</b> | <b>ttGTCG</b>      | cctttttgatgatagaattt----- | ..203..                 | tgttttttttt | tcatttta     |          |
| C.Bri  | accgctaa | ggtag----         | ttcaat...114.. | ----- | aatattgccttccagctct---- | <b>TCTCaAATA</b> | <b>ttGTCG</b>      | ----                      | cccttagagaaattgcta----- | ..229..     | ttcttcaaaatg | tcatttct |
| C.Bre  | gccgttaa | ggtaag----        | ttgaaa...145.. | ----- | atttgcttccagctctcct-    | <b>TCTCaAATA</b> | <b>ttGTCGATCAG</b> | -----                     | aagaattgtttcaaaaggt...  | ..231..     | tccagcgtttc  | ttgttca  |
| C.Rem  | acctctga | agtgag----        | tcgaag...146.. | ..    | cctcaaaatattgctttcc---- | <b>TTGT</b>      | <b>ctTCTCaAATA</b> | <b>ttGTCG</b>             | ttgcctgacatagaat----    | ..207..     | tcttaaagtatt | taactcta |
| ** * * | ** * *   | * ** *            | *****          | **    | *                       | *****            | *****              | ***                       | *                       | *           | * *          |          |

id=103271 gene=C38D4.6 name=pal-1 segment=chrIII.4808095.4808542\_-1 type=IN

Figure 106: CS=5.36



```

C.Ele ctccaacc cggacaactcgc...66...--gtcgcgtcccatgaccggagTTGAAAGTAgGCCGCTGAACaATTT-----ttaaatttcagaa aagagatc
C.Bri ctccaacc cggacaactcgc...72...-----gtcctatgaccggagtttgaTAGTAGGCCGCTGAACA cTTT-----cttttttttttcagga aggaaatc
C.Bre ctccaacc cggacctatcgc...64...acaccgcatcctatgatcggAGTTTgaTAGTAGGTCGCTGAACA cTTT-----tttcattttcagga aagaaatt
C.Jap ctccaacc cggccggatcag...69...--accgagtcctgtgaccggagTTTgaTAGTAGGTCGCTGAACA cATTTtcaattttttacgtttcagaa aggaaatt
C.Rem ctccaacc cggacaactcgc...65...-caccgcgtcccatgaccggaGTTTgaTAGTAGGCCGCTGAACA cATTT-----ctattttcagga aagaaatt
***** ** * ** ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *

```

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII\_6248686\_6248824\_1 type=EN

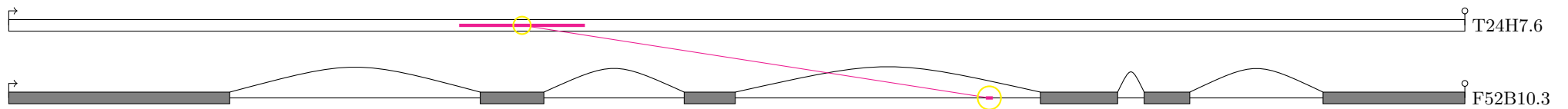
```

C.Ele aggaccat tggatatgcatt...853...aaaagcactaagcgggtgcttAAAATGTTCaAGTGGCACTTATTGAAgagctgaagcgggtggagaaa-----...510...acctatgattac agattcgg
C.Bri aggaccac tggtagtcaat...986...aatgcactaaatgggtgcttAAAATGTTCaAGTGGcaCTTATTG---agctgaagcgggtggaaattc-----...511...gttttttttttc agattcgt
C.Bre aggacctt tggtagtgcact...393...aaaagcactaaacgggtgcttAAAATGTTCaAGTGGcACTTATTAGAGCTgaagcgggtggaaattccttc...604...actcattattac agattcgt
C.Jap aggaccat tggtagtgcagc...334...aaaagcactaaatgggtgcttAAAATGTTCaAGTGGcACTTATTGCAGAgctgaagcggcctaaattcc---...548...tttcgtaattgc agatccga
C.Rem aggaccac tggtagtgcagt...353...aaaagcactaaacgggtgcttAAAATGTTCaAGTGGcaCTTATTGAGATctgaagcgggtggaaattcctt---...565...actcattattac agattcgt
***** ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *

```

id=193560 gene=C09B7.1 name=ser-7 segment=chrX\_2678569\_2680022\_1 type=IN

Figure 107: CS=5.4



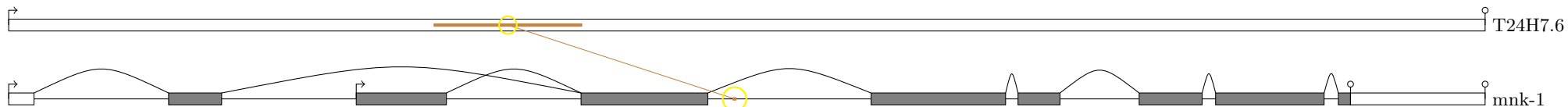
|       |          |                                     |          |       |  |          |
|-------|----------|-------------------------------------|----------|-------|--|----------|
| C.Ele | ctccaacc | cggacaactcgcaactgttgcaatggcagttcg   | ACTGTTAG | GACG  | ctaataagaaaattggcgg...59...taaatttcagaa  | aagagatc |
| C.Bri | ctccaacc | cggacaactcgcaacatgttgcaatggcctgttcg | ACTGTTAG | GACG  | ctagataagaaaattgggtg...62...ttttttcagga  | aggaaatc |
| C.Bre | ctccaacc | cggacctatcgcaactgttgcccttggtt       | GTT      | GACG  | ctagatgagaaaattggcgt...59...tcattttcagga | aagaaatt |
| C.Rem | ctccaacc | cggacaactcgcaactgttgccatggcctgttcg  | ACTGTTAG | GACG  | caatataatgaattggcga...57...ctattttcagga  | aagaaatt |
| ***** | *****    | *****                               | *****    | ***** | *****                                    | *****    |

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII\_6248686.6248824\_1 type=EN

|       |          |   |      |      |            |  |           |
|-------|----------|---|------|------|------------|--|-----------|
| C.Ele | ttacaggt | aaaaatgggtga...2040...tgcttctctggca-ttcgaaa | CGTC | CTAG | caCAGT     | gatgtac-----actcagaaagaac...70...ttcgtttcagga  | aatcctca  |
| C.Bri | ttgaaggt | gaggtggaacta...978...-ggttcaagaccacttcgaaa  | CGTC | CTAG | caCAGT     | gatctagggtgctagtcaga-----...82...tcatttcagga   | gacacctta |
| C.Bre | ctacaggt | gagaacacgcga...677...cgcttattaccagcggata-   | CGTC | CTAG | caCAGTGATC | tacagtgctaatacagaagga--...80...atggtttcagga    | aattctga  |
| C.Rem | ctgcaggt | aatcttctgaaa...531...cactttttacaacgtaga-    | CGTC | CTAG | caCAGT     | gatctacagtgctaatacaga-----...84...atgatttcagga | aatcctcg  |
| *     | ****     | *   | *    | **   | *          | *****  | **        |

id=56738 gene=F52B10.3 name=F52B10.3 segment=chrX\_2893393.2895581\_-1 type=IN

Figure 108: CS=6.24



```

C.Ele ctccaacc cggacaactc-gcaactt--gttgcaatGGTCAGTTCGACTGTTAGAGACGctaaataagaaaattggcgg-----...59...taaatttcagaa aagagatc
C.Bri ctccaacc cggacaactc-gcaacat--gttgcaatggctctgtTCGAcTGTTAgAGACGctagataagaaaattgggtg-----...62...tttttttcagga aggaaatc
C.Bre ctccaacc cggacctatc-gcaactt--gttgccTTGGTTGGTTCGACTGTTAGAGACGctagatgagaaaactggcgt-----...59...tcattttcagga aagaaatt
C.Jap ctccaacc cggccggatcagcaactttggttgcogtGGTCtGATCGACTGTTAGAGACGctatatgagaaaattggcgt-----...66...tacgtttcagaa aggaaatt
C.Rem ctccaacc cggacaactc-gcaactt--gttgccatggctctgtTCGACTGTTAgAGACGcAATAtaatgaatttggcgatttcg...52...ctattttcagga aagaaatt
***** ** * ** ***** * ***** ** * ** * ** ***** * ***** ** * ** *

```

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII.6248686.6248824.1 type=EN

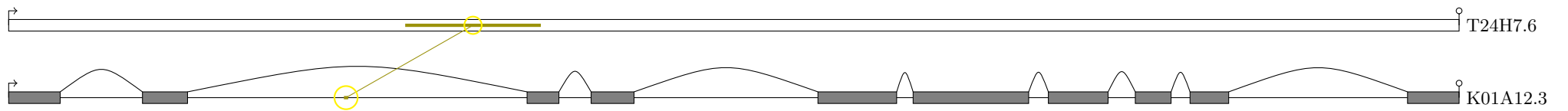
```

C.Ele agaactcg tccaagtgtgga...47...----cgtcttattcaattcctgctTGTtGTTGAACAGcTTGAtTTGGT-----ttgactaagcaacggatgtc-----...728...actaatttatt aa--aatgic--
C.Bri agaactcg tccaagtgtgga...91...----ctcatctcctctggttgt---TGTTgAACAcTTGA-----tttggtttgactaggaat-----...858...-gtaactatga cttaaattc-
C.Bre aaaactcg tccaagtgtgga...69...cgtccttgctttcctc---ttat-TGTTtGTTGAACAGcTTGAtTTGGgTTGA-----ctagggaaaatgacggatg...879...caatattgttc gt--aatgat--
C.Jap agaactcg tccaagtgcggt...43...---ttccgcctttctgcttgtTGTtGTTGAACAGcTTGAtTTGGCTtttcg--acgactgagagacg-----...750...taataatt--tt ct--atgtgag
C.Rem agaactcg tccaagtgcgga...68...-gtgttcctcctcctc---ttcttTGTTTGTtGAACAGcTTGA-----tttggttttgactaagcaaa-----...877...-tcaatttita ct--aatcag
* ***** ** * ** ***** ** * ***** ** * ** * ** ***** ** * **

```

id=155194 gene=R166.5 name=mnk-1 segment=chrII.10546266.10547131.-1 type=IN VIEW

Figure 109: CS=5.4



```

C.Ele ctccaacc cggacaactcgcaacttgttgcaatgggtcaGTTTCGACTGtTAGAgacgctaataagaaaattg...63...taaatttcagaa aagagatc
C.Bri ctccaacc cggacaactcgcaacatgttgcaatgggtcTGTTCGACTGtTAGAgacgctagataagaaaattg...66...tnttttcagga aggaaatc
C.Bre ctccaacc cggacctatcgcaacttgttgcttgggttgGTTTCGACTGtTAGAgacgctagatgagaaaattg...63...tcattttcagga aagaaatt
C.Rem ctccaacc cggacaactcgcaacttgttgccatgggtcTGTTCGACTGtTAGAgacgcaatataatgaatttg...61...ctattttcagga aagaaatt
***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** *****

```

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII.6248686.6248824\_1 type=EN

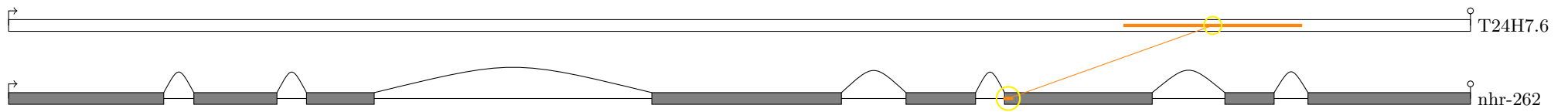
```

C.Ele attgtcat gtttaattggtaa...397...ttgaaccaggacctctcgaTCTGCAGTCGAATgctctgccactgagctatac-...801...ataatagaattt aatttcag
C.Bri attgtgat gttgatcggtaa...94...ttgaaccggggacctctcgaTCTGCAGTCGAATgctctgccactgagctatacc...1923...gtaaaaaaattt atctaaat
C.Bre attgtgat gttgataggtaa...48...ttgaaccggggacctctcgaTCTGCAGTCGAATgctctgccactgagctatac-...559...actcatggttcc aatttcag
C.Rem attgtgat gttgattggtga...64...ttgaaccggggacctctcgaTCTGCAGTCGAATgctctgccatcaaaagaggaa...753...tcagtaaattat caattcag
***** ** *** ** ** * ***** ***** ***** ***** ***** * * * * * * * * * * * * * * * * * * * * * * * *

```

id=124201 gene=K01A12.3 name=K01A12.3 segment=chrX.8623413.8624687\_-1 type=IN

Figure 110: CS=5.64



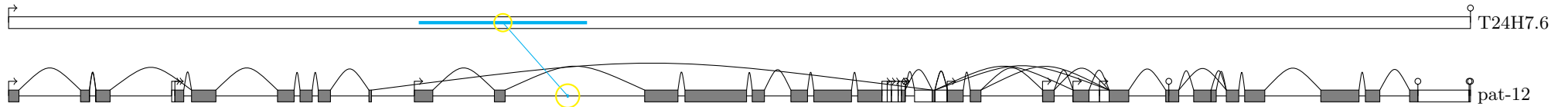
|       |          |  |           |          |         |                         |          |
|-------|----------|--|-----------|----------|---------|-------------------------|----------|
| C.Ele | ctccaacc | cggacaactcgc...65...cgtcg-cgtcccatgaccgga  | GTTTGaa   | AGTAGGcc | GCTG    | --aacaatttttttaaatcagaa | aagagatc |
| C.Bri | ctccaacc | cggacaactcgc...67...-ccgccgtcctatgaccggag  | TTTGAta   | GTAGGc   | CGCTGAA | cacttttcttttttttcagga   | aggaaatc |
| C.Bre | ctccaacc | cggacctatcgc...65...caccg-catcctatgatcgga  | GTTTGat   | AGTAGGt  | CGCTG   | --aacacttttttcatttcagga | aagaaatt |
| C.Rem | ctccaacc | cggacaactcgc...66...-accg-cgtcccatgaccggag | TTTGAta   | GTAGGc   | GCTGAA  | ----caattttctatttcagga  | aagaaatt |
| ***** | *****    | ****                                       | ** * ** * | *****    | *****   | ***                     | ***** *  |

id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII.6248686.6248824.1 type=EN

|       |            |   |  |              |                       |             |          |
|-------|------------|---|--|--------------|-----------------------|-------------|----------|
| C.Ele | -cgtgagct  | ctt-----                                | -----cgccccttgctttactacaacacctcgaattta-- | CAGCtt       | CCTG                  | CTc         | CAAA-c   |
| C.Bri | -cgtgaagat | tgt-----                                | -----aactttgaatt-----ccaga--aagt-----    | attcaaaaacc  | ---tt--               | TTCAGCGt    | CCTG     |
| C.Bre | -cgtgagtt  | ttttttcgggcaagtcaaaagtctggaatccggc----- | cgagaccaa                                | atctagcatttt | caaatcccaactctcattc-- | CAGCGt      | CCTG     |
| C.Rem | ccgtgagtt  | ttc-----                                | -----aagccttggttatttgggatcagaaaaacgaga-- | aagcatgac    | tttttacaattccaac      | ctcagcattat | TTCAGCtt |
|       | *** ** *   |   |  |              |                       | ****        | *****    |

id=207008 gene=F09C6.8 name=nhr-262 segment=chrV.16906460.16906506.1 type=IN

Figure 111: CS=6.4



|       |          |  |              |                          |                          |              |              |          |
|-------|----------|--|--------------|--------------------------|--------------------------|--------------|--------------|----------|
| C.Ele | ctccaacc | cggacaactc-gcaactt--gttgcaatggtcag       | TTCGac       | TGTTAGAGACGC             | ctaataagaaaattggcgg----  | ...59...     | taatttcagaa  | aagagatc |
| C.Bri | ctccaacc | cggacaactc-gcaacat--gttgcaatggtctg       | TTCGac       | TGTTAGAGACGCTAGA         | taagaaaattggtggattcg...  | ...57...     | ttttttcagga  | aggaaatc |
| C.Bre | ctccaacc | cggacctatc-gcaactt--gttgccttggttgg       | TTCGac       | TGTTAGAGACGC             | ctagatgagaaaactggcgt---- | ...59...     | tcattttcagga | aagaaatt |
| C.Jap | ctccaacc | cggccggatcagcaactttggttgccgtggtctgatcgac | TGTTAGAGACGC | tatatgagaaaattggcgtt---- | ...65...                 | tacgtttcagaa | aggaaatt     |          |
| C.Rem | ctccaacc | cggacaactc-gcaactt--gttgccatggtctg       | TTCGac       | TGTTAGAGACGC             | caatataatgaatttggcga---- | ...57...     | ctattttcagga | aagaaatt |
| ***** | *** * *  | ** ***** * *****                         | *****        | *****                    | *****                    | *****        | *****        | *****    |

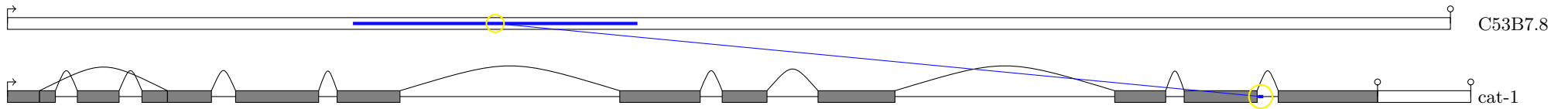
id=100671 gene=T24H7.6 name=T24H7.6 segment=chrII\_6248686.6248824\_1 type=EN

|       |          |                        |                               |              |              |                                |                                |              |
|-------|----------|------------------------|-------------------------------|--------------|--------------|--------------------------------|--------------------------------|--------------|
| C.Ele | aagtattc | ggtagtgttttag...854... | tctttctctccactatccct-----     | CGTTTTTAACA  | taCGAA       | acaagaaagacaaacacatt...1031... | gaataattttca                   | ggaacgtc     |
| C.Bri | aagtattc | ggtaagaaaatg...779...  | ----tcctccctagtcgctgctgctg    | TTTGct       | GCGTTTTTAACA | taCGAA                         | acaagaaagacaaacacatt...1676... | agttgtttttca |
| C.Bre | aagtattc | cgtaagttgact...285...  | gctttctccttctcgtcgtcgt-----   | CGTTTTTAACA  | taCGAA       | acaagaaagacaaacatatt...998...  | atctttttttca                   | ggaacgtc     |
| C.Jap | aagtattc | ggttagtgcct...125...   | ----ggctgcgctctcgcgctcgc----- | GCGTTTTTAACA | ----         | tatacgaaca-aggcgcgcg...1162... | acaactttttca                   | ggaacgtc     |
| C.Rem | aagtattc | ggttagtgtttg...973...  | ----ttcctcctagtcgctctttt----- | CGTTTTTAACA  | taCGAA       | acaagaaagacaaacacatt...1807... | tcattattttca                   | ggaacgtc     |
| ***** | *** * *  | ** * *                 | * * *                         | *****        | *****        | * * * * *                      | *****                          | *****        |

id=67385 gene=T17H7.4 name=pat-12 segment=chrIII\_735623.737588\_-1 type=IN

Figure 112: CS=5





```

C.Ele ctgtgtat gacgacaacATGTTaGGGAcATCTgcaca-aaccgtgaagatttaac-gaaagtagtactgacacagtgctt tcctttt-----
C.Bri ctgtgtat gacgataaTATGTTaGGGAcATCTGcattcatttgtgatgatttaac-gatagtagtactgacacagctttt  tgaatgtt-----
C.Bre ctgtgtat gacgataaTTGTTaGGGAcATCTGcact-atccgtgatgatttaac-gatagtagtactgacacagttttt  tcctttt-----
C.Jap ctgtgagt gacgacaaTATGTTaGGGAcATCTGcaat-cccgtgaagatttaac-gatagtagtactgacacagttt-- -gtttt-----
C.Rem ctgtgtat gacgacacgATGTTaGGGAcATCTGcatc-aaccgtgaagatttaactgatagtagtactgacacagttttt  cgtttttcttctct
***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898\_6867968\_1 type=EN

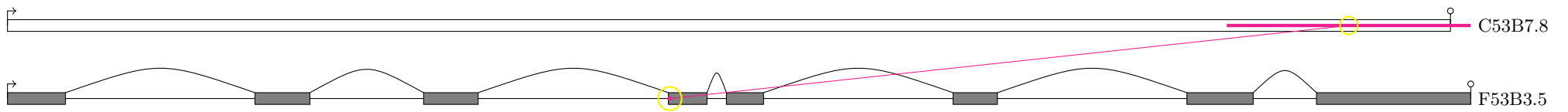
```

C.Ele taGGATTC CCAACGT-aacatacaatgatgaattgacaaca---acactagataat-----aatt ttcaggat
C.Bri tTGGATTC CCAACGTAagcagattaaaagtttaggaaaaa---tatagcaggctat-----t ttcagaat
C.Bre tTGGATTC CCAACGTAaaggagatataaa---acagaactaagtgaagaaaagtgt-----gt  tacagaat
C.Jap tTGGATTC CCAACGTAatctgataaaa---ttaaaaaaacgttttctggcaaatcaaacctgcct ttcagaat
C.Rem tCGGATTC CCAACGT-aactagaaaaaagaaaagaataaagtgtgcatcgacatgt-----t ttcagaat
* ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=115295 gene=W01C8.6 name=cat-1 segment=chrX\_5706122\_5706169\_-1 type=IN VIEW

Figure 113: CS=5.4



```

C.Ele ctgtgtat gacgacaacatggttagggacatctgcacaaacctgaagatttaacg-AAAGTAGTACTGAcACAGtgtctt----- tccttttt
C.Bre ctgtgtat gacgataaattggttagggacatctgcactatccgtgatgatttaacg-atAGTAGTACTGAcACAGtttttt----- tctttttt
C.Jap ctgtgagt gacgacaatatggttagggacatctgcaatcccgtgaagatttaacg-atAGTAGTACTGAcACAGttttgt----- ----tttt
C.Rem ctgtgtat gacgacacgatggttagggacatctgcatcaacctgaagatttaactgatAGTAGTACTGAcACAGttttttcgtttt tcttctct
**** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** *

```

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898.6867968.1 type=EN

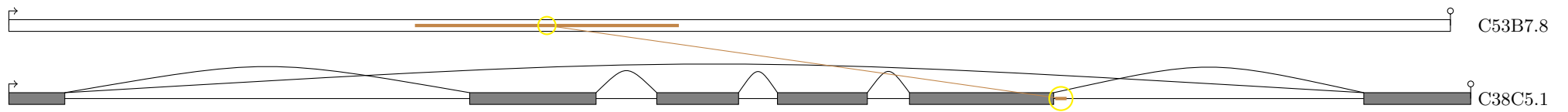
```

C.Ele ttgttggt gagttgttata...709...-acattaatgccattttgatTTGTTcAGgT ATTGTTt
C.Bre ttgttggt aagatttgcgc...176...gacattaatgcaca-tttgatTTGTTcAGgT ATTGTTt
C.Jap tgcttggt acgtcttcaacc...121...gacattaatgcaca-tttgatTTGTTcAGgT ATTGTTt
C.Rem tcattggt aatttctttca...184...-acattaatacacattttgatTTGTTcAGgT ATTGTTt
* **** * **** * **** * **** * **** * **** * **** * **** *

```

id=139637 gene=F53B3.5 name=F53B3.5 segment=chrX\_2876629.2877379.-1 type=IN VIEW

Figure 114: CS=5.64



```

C.Ele ctgtgtat gacgacaaca-TGTTAGGgACATCTGCaca-aaccgtgaagatttaac-gaaagtagtactgacacagtgtcctt tccttttt-----
C.Bri ctgtgtat gacgataata-TGTTAGGgACATCTGCattcatttgtgatgatttaac-gatagtagtactgacacagcttttt tgaatgtt-----
C.Bre ctgtgtat gacgataa-TTTGTTAGGgACATCTGCact-atcogtgatgatttaac-gatagtagtactgacacagtttttt tccttttt-----
C.Rem ctgtgtat gacgac-acgATGTTAGGgACATCTGCatc-aaccgtgaagatttaactgatagtagtactgacacagtttttt cgtttttcttctct
*****
***** * ***** * **** * ***** ** ***** * ** * *

```

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898.6867968.1 type=EN

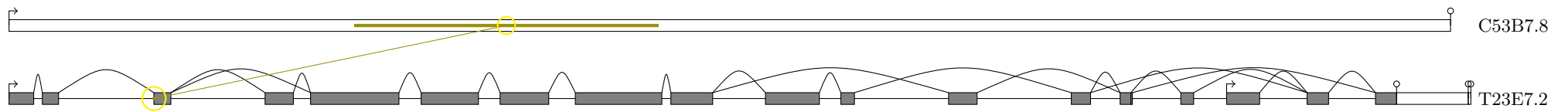
```

C.Ele cgGTAGtA TGTgCCTGATG-caaa-ctatcctttataca-aa...340...aactttcaggtat ttcatgac
C.Bri cgGTAGtA TGTgCCTGATG-cagatctgtcctatctat--aa...239...atthttcaggtt ttcatgac
C.Bre cgGTAGtA TGTgCCTGATGAAgaa-ctatcctttctaaacaa...211...atthttcaggtc ttcatgac
C.Rem cgGTAGtA TGTgCCTGATGT-gga-ctatcctgtctaggcaa...219...atthttcaggtc ttcatgac
*****
***** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * **

```

id=207184 gene=C38C5.1 name=C38C5.1 segment=chrX\_5560781.5561163.1 type=IN VIEW

Figure 115: CS=5.8



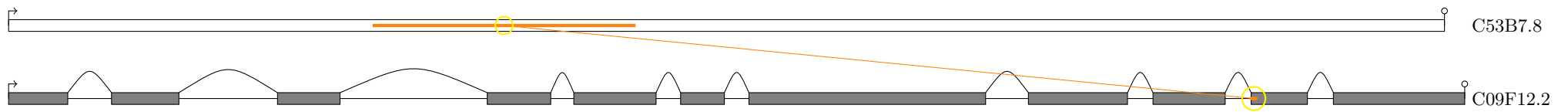
|       |          |  |                |
|-------|----------|--|----------------|
| C.Ele | ctgtgtat | gacgacaac-ATGTTaGGGACaTCTGCAAAACcGTGAAGAAttTAACGA-----aagtagtactgacacagtgtctt  | tccttttt-----  |
| C.Bri | ctgtgtat | gacgataat-ATGTTaGGGAcTCTG----cattcatttgtgatgatttaac-gatagtagtactgacacagcttttt  | tgaatgtt-----  |
| C.Jap | ctgtgagt | gacgacaat-ATGTTaGGGAcTCTGCAATc-----cccgatgaagatttaac-gatagtagtactgacacagtttt-- | -gttttt-----   |
| C.Rem | ctgtgtat | gacgac-acGATGTTaGGGAcTCTG----ca-tcaaccgtgaagatttaactgatagtagtactgacacagtttttt  | cgtttttcttctct |
|       | **** * * | ***** * ***** * * * ***** * *  | * *            |

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898.6867968.1 type=EN

|       |          |   |             |
|-------|----------|---|-------------|
| C.Ele | cttttag  | aattttgttttt...2034...tttcctctccactagatcaTTGTTATTTTCAGTTTTGCAGGTCCCcGATAT | cactggaa    |
| C.Bri | aggtatac | attttttgtat...744...-----cagaatgatttgtgatgttc-----CAGGTCCCcGATAT          | cactggaa    |
| C.Jap | atatttcg | aattttatgctc...879...tgtttcatactaacgatttt-----GTTCcCAGGTCCCcGATAT         | cactggaa    |
| C.Rem | tactgtaa | tatttatgttc...944...-----atctatgattttgaggttt-----CAGGTCCCcGATAT           | Cactggaa    |
|       | * *      | ** * * *  | ***** ***** |

id=14475 gene=T23E7.2 name=T23E7.2 segment=chrX\_17671216.17673314.1 type=IN VIEW

Figure 116: CS=5.64



```

C.Ele ctgtgtat gacgacaacaTGTTAGGGACATCTGACAAAccGTGAagATTTaac-gaaagtagtactgacacagtgtctt tcctttt-----
C.Bre ctgtgtat gacgataaTTGTTAGGGACATCTGcactatccgtgatgatttaac-gatagtagtactgacacagttttt tcttttt-----
C.Jap ctgtgagt gacgacaataTGTTAGGGACATCTGcaatcccgtgaagatttaac-gatagtagtactgacacagtttt--gtttt-----
C.Rem ctgtgtat gacgacacgaTGTTAGGGACATCTGcatcaaccgtgaagatttaactgatagtagtactgacacagttttt cgtttttcttctt
**** * **** * ***** ***** ***** ***** ***** ***** ***** *****

```

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898\_6867968.1 type=EN

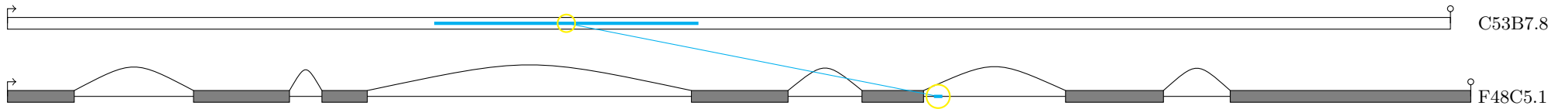
```

C.Ele -gtaatatc ctcatacttcataatgacctc--tctcaaAAATaaTTACTTTGTtTAGGTGtTCCCcaGACAaa
C.Bre ggtaattcc cct---cagtttgatgacctc-atcgcaacaatgactatatt---CAGGTGtTCCCTaGACAAa
C.Jap -gtaatata tttgc-caatttactgacctcca-cgcaacactgagtgcatt---CAGGTGtTCCCTGACAaa
C.Rem -gtaatatc -----cgttttgatgacctccatcccacaataaccgtatt---CAGGTGtTCCCcaGACAaa
**** * * ***** * * * * * * * * ***** *****

```

id=47373 gene=C09F12.2 name=C09F12.2 segment=chrX\_11056407\_11056460.1 type=IN VIEW

Figure 117: CS=5.8



```

C.Ele ctgtgtat gacgacaacatGTTAGGGACAtcTGCA-caaacctggaagatttaac-gaaagtagtactgacacagtgtcctt tcctttt-----
C.Bri ctgtgtat gacgaTAATATGTTAGGGACAtcTGCAttcatttgtgatgatttaac-gatagtagtactgacacagcttttt tgaatgtt-----
C.Bre ctgtgtat gacgaTAATtGTTAGGGACAtcTGCA-ctatccgtgatgatttaac-gatagtagtactgacacagcttttt tcttttt-----
C.Jap ctgtgagt gacgacaataTGTAGGGACAtcTGCA-atccccgtgaagatttaac-gatagtagtactgacacagctttt--gttttt-----
C.Rem ctgtgtat gacgacacgaTGTAGGGACAtcTGCA-tcaaccgtgaagatttaactgatagtagtactgacacagctttttt cgtttttcttctct
***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX.6867898.6867968.1 type=EN

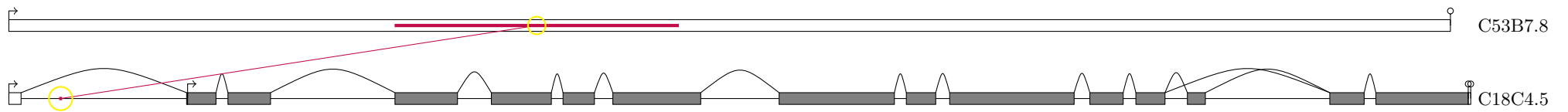
```

C.Ele accagtct gcgcttacTGTATGTCttCTTAAC-----tttctaacaataagattt...163...tcaactgttttc cttctcca
C.Bri gccagtct gcgcttacTGTATGTCttCTTAACA-TATTGagatcttctaataataagtt...145...acgaattttctt cttctaca
C.Bre gccagtct gcgcttacTGTATGTCttCTTAACA--ATTA--agtttctaac-tagcaaggtt...181...caatatttactt cttctaca
C.Jap gccagtct gcgcttacTGTATGTCttCTTAACA-----aatagctctaac-tgggaagg...163...gtaacaatttctt tctcttta
C.Rem accagtct gcgcttacTGTATGTCttCTTAACA---ccttagtttctaac-tagcaa-----...153...acaatcttctt ttactaca
***** ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=48279 gene=F48C5.1 name=F48C5.1 segment=chrX.11444914.11445132.-1 type=IN VIEW

Figure 118: CS=5



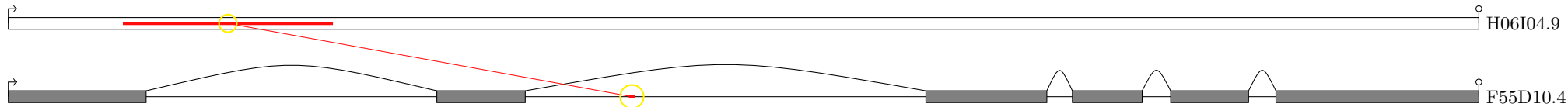
|       |          |             |       |         |       |  |                |
|-------|----------|-------------|-------|---------|-------|--|----------------|
| C.Ele | ctgtgtat | gacgacaacat | GTTA  | ggGACAt | CTGC  | -acaaccgtgaagatttaac-gaaagtagtactgacacagtgtcct | tcctttt-----   |
| C.Bri | ctgtgtat | gacgataaat  | GTTA  | ggGACAt | CTGC  | attcatttgtgatgatttaac-gatagtagtactgacacagctttt | tgaatgtt-----  |
| C.Bre | ctgtgtat | gacgataatt  | GTTA  | ggGACAt | CTGC  | aCTATC-cgtgatgatttaac-gatagtagtactgacacagttttt | tcttttt-----   |
| C.Rem | ctgtgtat | gacgACACGA  | GTTA  | ggGACAt | CTGC  | -atcaaccgtgaagatttaactgatagtagtactgacacagttttt | cgtttttcttctct |
| ***** | *****    | *           | ***** | *****   | ***** | ** ***** ** *****                              | * ** * *       |

id=168725 gene=C53B7.8 name=C53B7.8 segment=chrX\_6867898.6867968.1 type=EN

|       |          |  |               |       |   |             |
|-------|----------|--|---------------|-------|---|-------------|
| C.Ele | acagagcg | gtgagtgttatt...113...--aaa--tccgaatttccggtggg  | GCGGTGTC      | TAAT  | cttcgtgtgagatagtagtt-----...1019...aatgtttccag    | tacaatgt    |
| C.Bri | acagataa | gtgagttgtta...97...--gaat---cacgaatttccggtag-  | GCGGTGTC      | TAAT  | cttcgtgtgagatagtagtt-----...360...ttcttttctag     | ggcaatgt    |
| C.Bre | acagaaag | gtaagtgtcaag...96...gccaatccatccgaatttcc-      | GGTAGGCGGTGTC | TAAT  | cttcgtgtgagatagtagtt-----...395...ttctatttccag    | agcaatgt    |
| C.Rem | acagatcg | gtgagtatttag...85...--gaat---tccgaatttccggtag- | GCGGTGTC      | TAAT  | ctTCGGTGTgagatagtagttgataaga...726...tatctattccag | agcaatgt    |
| ***** | ** **    | ** ***** *                                     | *****         | ***** | *****   | ** ** ***** |

id=132222 gene=C18C4.5 name=C18C4.5 segment=chrV\_5556008.5557216.-1 type=I5

Figure 119: CS=5.92



```

C.Ele  tcacgcAG AATCTCGAGA----agcgatttcctgacactcgtcgggtcgtttgaggacagaccctgccgtacacattcttgattttaa cctgttaa
C.Bri  tcacgcAG AATCTCGAGA----agcaccaccac----ctaggttgggcactttgaggacagaccctgctagacacattcttgattttaa cctgttaa
C.Bre  tcacgcAG AATCTCGAGAAGTTCcggg-----ctgtttcgg-gctttgaggacagacactgcctaacacattcttgattttaa aatgttaa
C.Jap  ccatgcAG AATCTCGAGA----aagt-----caccctggtggcctttgaggacagaccctgcccaacacattcttgaatt-a actgttaa
C.Rem  ccatgcAG AATCTCGAGA----agc-atcggttgacacttgtcgcagatctttgaggacagaccctgcctaacacattcttgattttaa cctgttaa
** **** ***** * ***** ** * ***** ** * *****

```

id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

```

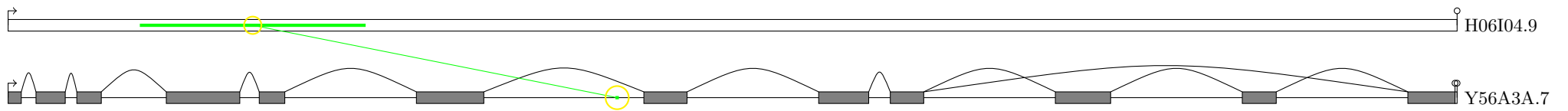
C.Ele  ctatcgag gttagtttattg...138...----atcgtcacataaaaaggagtcTCTCGAGATTTTcattagtcccgtcgtcgtc-...842...acacatttcag gtctcaat
C.Bri  ctatcgag gttggttttata...144...----caacgtcacaaaaaggagtcTCTCGAGATTTTcattagtgtcgtctgatggg-...885...tcaaatttacag atcgcaac
C.Bre  ctatcgag gttggtttgca...117...catgtatacgtcacataaaaGAGTcTCTCGAGATTTTcattagtgtcgc-cggttgcc...790...cattctttcag atcacaac
C.Jap  ctttcgag gtgggtttctag...81...----ttacgtcacatgaaagtgtcTCTCGAGATTTTcattagagtcggcgccaag-...698...ataaactttcag atctcaac
C.Rem  ctgtcgag gtgggttttagg...164...----gtacgtcacgtaaaggagtcTCTCGAGATTTTcattagtgtcgc-ctggttgat...546...agaacattcag atctcaac
** **** ** **** ***** ** * ***** ***** * * * ***** ** ****

```

id=286310 gene=F55D10.4 name=F55D10.4 segment=chrX\_4717235\_4718290\_-1 type=IN

Figure 120: CS=6.25





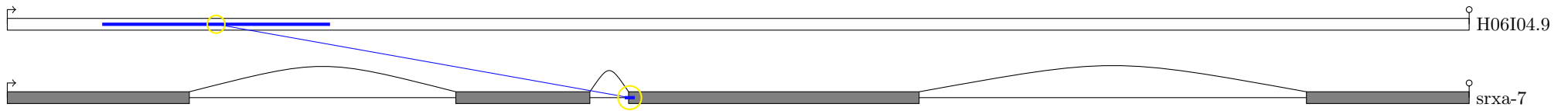
|       |            |    |              |   |          |
|-------|------------|----|--------------|---|----------|
| C.Ele | tcacgc     | AG | AATcTCGAGAAG | cgatttcctgacactcgtcgggtcgctttgaggacagaccctgccgtacacattcttgattttta | cctgttaa |
| C.Bri | tcacgc     | AG | AATcTCGAGAAG | cacccac-----ctaggttgggcactttgaggacagaccctgctagacacattcttgattttta  | cctgttaa |
| C.Bre | tcacgc     | AG | AATcTCGAGAAG | TcCGGGctTGTTCGG-----gctttgaggacagacactgcctaacacattcttgattttta     | aatgttaa |
| C.Rem | ccatgc     | AG | AATcTCGAGAAG | -catcggttgacacttgtcgacgatctttgaggacagaccctgcctaacacattcttgattttta | cctgttaa |
|       | ** ** ** * |    | *****        | * ***** ** *  | *****    |

id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

|       |          |                        |  |                 |                              |                  |          |
|-------|----------|------------------------|--|-----------------|------------------------------|------------------|----------|
| C.Ele | agagaata | ttaagaaagaaa...1975... | tagtagtag-tacacctgaca-C-----           | TTTTTCGAaATTTT  | tacacttttctgagaactc...69...  | -accaactgacct-tt | tacatat  |
| C.Bri | agagaaca | tcaagaaggaaa...837...  | gagtagtag-tacacctgaca-----             | CTTTTCGAaATTTT  | tacacactttccgagaagct...72... | -accaaata-ga-ctg | tgatattt |
| C.Bre | agagaata | taaagaaggaga...2025... | -ctagaaccgccgcagacagCCGAgtAGTAcACTTGAc | ACTTTTCGAaATTTT | tacacactttctgagaacta...89... | -a-caactgatcta   | ttatttaa |
| C.Rem | agaaaata | ttaagaaagaaa...428...  | ---agtag-tacacctgacacttt-----          | CTTTTCGAaATTTT  | tacacactttctgagaacc...98...  | gacctaataca--tt  | ttataact |
|       | ** * * * | * * * * *              | ** * * * * *                           | *****           | *****                        | * * * * *        | * *      |

id=219335 gene=Y56A3A.7 name=Y56A3A.7 segment=chrIII\_11942626\_11944748\_-1 type=IN VIEW

Figure 121: CS=6.32



```

C.Ele  tcacGCAG AATCTcGAGA----agcgatttcctgacactcgt-...35...tcttgatttta cctgttaa
C.Bri  tcacGCAG AATCTcGAGAA----gcacccacctaggttgggc...29...tcttgatttta cctgttaa
C.Bre  tcacGCAG AATCTcGAGAAGTtccgggcttgtttcgggctt---...25...tcttgatttta aatgttaa
C.Rem  ccatGCAG AATCTcGAGA----agc-atcggttgacacttgtc...34...tcttgatttta cctgttaa
      ** **** ***** * * ***** * *****

```

id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

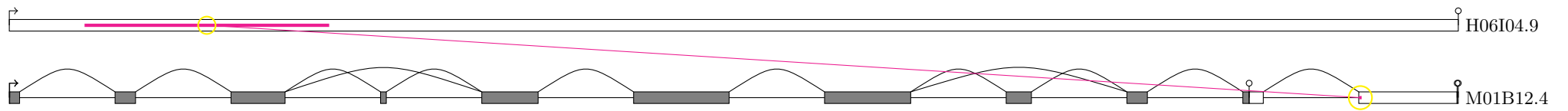
```

C.Ele  -----ggtgagc-----:~::~-----ataaac-----TTCAGATccTCT Gcttcact
C.Bri  tgagttattactttttacgagacacggcgaataatattg:::~::tttcaaattttagaagaataaaattagttttacaagttcTTTCAGATtcTCT Gcttcacc
C.Bre  -----ggtgagt-----:~::~-----ACITTTTCAGATtcTCT GTtttacc
C.Rem  -----:~::~-----TTCAGATtcTCT Gctttacc
      ***** **** * * * *

```

id=163427 gene=C31A11.6 name=srxa-7 segment=chrV\_16308414\_16308463\_1 type=IN

Figure 122: CS=6.32



|       |          |               |      |                        |          |              |          |
|-------|----------|---------------|------|------------------------|----------|--------------|----------|
| C.Ele | tcacGCAG | aATCTcGAGA    | ---- | agcgatttcctgacactcgt-  | ...35... | tcttgattttaa | cctgttaa |
| C.Bri | tcacGCAG | aATCTcGAGA    | ---- | agcaccacacctagggtggg-  | ...30... | tcttgattttaa | cctgttaa |
| C.Bre | tcacGCAG | aATCTcGAGAAGT | ---- | tccgggcttgtttcgggctt-- | ...25... | tcttgattttaa | aatgttaa |
| C.Rem | ccatGCAG | aATCTcGAGA    | ---- | agc-atcggttgacactgtc.. | ...34... | tcttgattttaa | cctgttaa |
|       | ** **    | *****         |      | *                      |          | *****        | *        |

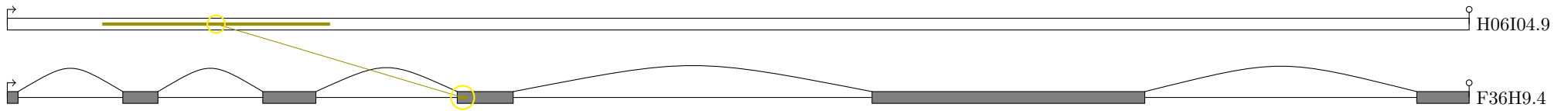
id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

|       |          |                                  |                         |                     |          |          |
|-------|----------|----------------------------------|-------------------------|---------------------|----------|----------|
| C.Ele | ttcattac | ggtaataagttttccgactaaaattcagtttt | :::::ataaaaaataaaattaat | tttaatccaatctcaataa | TTTCcA   | GATcTTGc |
| C.Bri | ttctatac | ggtaat                           | -----                   | -----               | TTTCcA   | GATcTTGc |
| C.Bre | ttctgtac | ggta---ggttaccgacca              | -----                   | -----               | GTTTTTCA | GATcTTGc |
| C.Rem | ttctatac | ggtaatttagttagtaactaa            | -----                   | -----               | aTTTCcA  | GATcTTGc |
|       | *** **   | ****                             |                         |                     | *** **   | *****    |

id=206006 gene=M01B12.4 name=M01B12.4 segment=chrI\_3071527\_3072166\_-1 type=I3

Figure 123: CS=7.92





```

C.Ele  tcacGCAG AATCTcGAGAAgcgatttcctgacactcgtcgggtcgctttgaggacagaccctgcgtacacattcttgatttta cctgttaa
C.Bre  tcacGCAG AATCTcGAGAAG----ttccgggctgtttcgg---gctttgaggacagacactgcctaacacattcttgattttaa aatgttaa
C. Jap  ccatGCAG AATCTcGAGA-----aagtcaccctggcgttttggaggacagaccctgcccaacacattcttgaaatt-a actgttaa
C.Rem  ccatGCAG AATCTcGAGAAG-catcggttgacacttgacgatctttgaggacagaccctgcctaacacattcttgatttta cctgttaa
      ** **** ***** * ***** ** * ***** ** * *****

```

id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

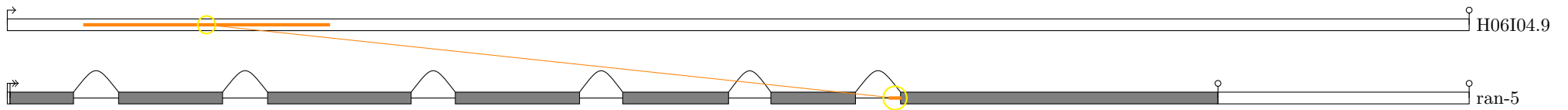
```

C.Ele  acacgtgg taagatTTTtgaacgtggcagttgtcag--:::aaatattgtatactacagactacgctataatttta---TTTTcAGATgtTCTGc
C.Bre  acatgtgg tatg-----ttcAAA--:::ggttatccaactctgaaaat---ccagaactttt---CTTTcAGATgtTCTGc
C. Jap  tcacgtgg ttggttttttagctc-----tttAAaga:::gaagatcacacactcgccatgccccatgatgagctcatcTTTcAGATgtTCTGc
C.Rem  acacgtgg tacg-----tctcaga--:::-----CTTTcAGATgtTCTGc
      ** **** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=262471 gene=F36H9.4 name=F36H9.4 segment=chrV\_1778505\_1778701\_-1 type=IN

Figure 125: CS=5.92



```

C.Bri tcaCGCAGAATCTcGAGAAgcacccccacctaggttgg-----gcactttgaggacagaccctgctagacacattcttgatttttacctgtaa
C.Bre tcacGCAGAATCTcGAGAAGTT-----ccgggcttgtttc-----gggctttgaggacagacactgcctaacacattcttgattttaaagttaa
C.Jap cCATGCAGAATCTcGAGA---aagtcaccctggt-----ggcctttgaggacagaccctgcccacacattcttgaaatt-aactgtaa
C.Rem ccaTGCAGAATCTcGAGAAG-----catcggttgacacttgtcgacgatctttgaggacagaccctgcctaacacattcttgatttttacctgtaa
** ***** * * * * * ***** ** * *****

```

id=243029 gene=H06I04.9 name=H06I04.9 segment=chrIII\_3068478\_3068554\_1 type=EN

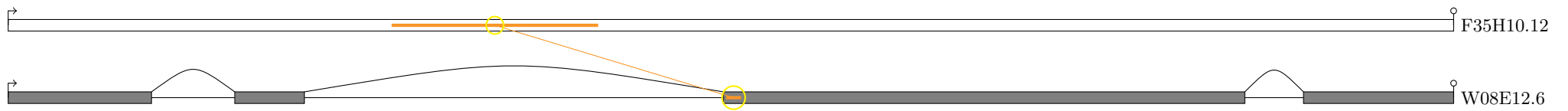
```

C.Bri --ttcattggtgaatcaggagagcaataaatcgatta-TTTTCAGATTtCTGCGatggggccagaaa
C.Bre -----a--aacacat----tataattgaataaaAATTatTTTCAGATTtCTGCAatggggccagaag
C.Jap --ttta-aaaatatacaaacactattgaac-----TTTCAGATTtCTGctATGGgcccagaaa
C.Rem ttttttctgaaatgacccaaaatagataaacatact-TTTTTCAGATTtCTGCAatgggacctgaaa
* * * * * ** ***** ** * **

```

id=316189 gene=R12C12.2 name=ran-5 segment=chrII\_6049001\_6049049\_1 type=IN

Figure 126: CS=5.52



```

C.Ele ttgatttc tagatgatggaagagcaGTGAAAGATCttTGAAGagccgaatgttcagaatcaacagataccaatgaagcatctgtatctcctgacgagaaatcct ttcaatga
C.Bri ttgatttc tggaaatggaagagcaGTGAACGATCttTGAAGAGcTGAATgctcagagtcaacagaaccagagcagcatcagtgctccagatgagaaatcct tttagaga
C.Bre ttgatttc tagatgatggaagagcaGTGAAGATCgtTGAAGtgccgaatgttcagaatcaacagagactaaagcagcatcagtatctccagatgaaaagtatcct ttaagtga
C.Rem ttgatttc tggatgatggaagagcaGTGAAAGATCttTGAAGtgctgaatgttcggaatcaacagaacaagagctgcatctgtatctcctgaagagaagtatccc ttgagtga
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV\_8310216\_8310313\_1 type=EN

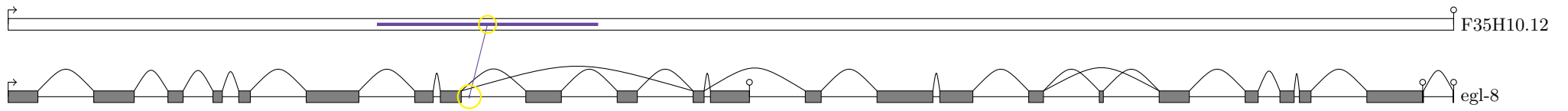
```

C.Ele agcgccgg tacgtctcaaaa...268...gg-----ccttttgaataactccaa-----TTCAGATCTTCGTt
C.Bri agcaccgg tatgtttgttaa...57...-----cttggtgaggctcaacaacaGTTCAaaTTTCAGATCTTCGTc
C.Bre agcaccag taagtggaaatc...35...-----ccaaacaattgagtttat-----TTCAGATCTTCGTg
C.Rem agcaccgg taagtgaagatc...33...ggatataactttt-----ccaatat-----TTCAGATCTTCGTt
*** ** * ** ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=115368 gene=W08E12.6 name=W08E12.6 segment=chrIV\_3298843\_3299149\_1 type=IN VIEW

Figure 127: CS=7.32



```

C.Ele ttgatttc tagatgatggaagagcAGTGAaaGATCttTGAAGagccgaatgttcagaatcaa...32...gagaaatcct ttcaatga
C.Bri ttgatttcTGAAGATGGAAGAGcAGTGAacGATCttTGAAGAgctgaatgctcagagtcaac...31...gagaaatcct ttagaga
C.Bre ttgatttc tagatgatggaagagcAGTGAatGATCgtTGAAGTgcogaatgttcagaatcaac...31...gaaaagatcct ttaagtga
C.Rem ttgatttcTGGATGATGGAAGAGcAGTGAaaGATCttTGAAGTgctgaatgttcggaatcaac...31...gagaagtatccc ttgagtga
***** * * ***** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV.8310216.8310313.1 type=EN

```

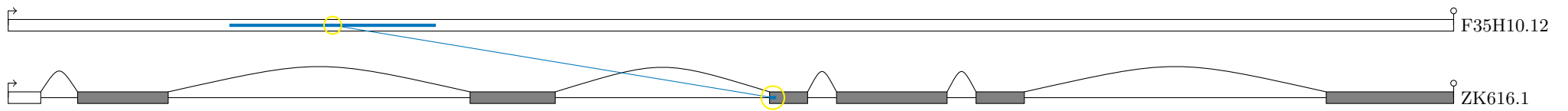
C.Ele atcacctc gtgagttttat...26...tcattttt-ttggtttcgca----TTTCAGATTTCACT-----atatctaactcta---attgtc----...1897...tctccatacag gaagcggc
C.Bri ttcacctc gtgagtcaattt...38...----tttt-ttttttttgcacaaacatTTTCAGATTTCACTatCTCTaTCTATCtgTTCTGGtgaactctatcacatttatt-----...685...aactacccttag gaagcggg
C.Bre gtcctcctc gtgagtttattt...129...taagttttggttcggtcg----ATTTTCAGATTTCACT-----atcccttttttaagtctatc-----...925...tcccaaaaacag gaagcggc
C.Rem atcgctc gtgagttctaac...87...ttgtgtttggttcgtgtcg----ATTTTCAGATTTCACTatCTCTaTTTGTcaATCTAtccaacttta-----ttttcaaaca...544...tatccaaaacag gaagcggg
** **** ***** ** * ** * ***** ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=168340 gene=B0348.4 name=egl-8 segment=chrV.26381.28381.1 type=IN

Figure 128: CS=5.92





```

C.Ele  ttgatttc tagatgaTGGAGAGCagTGAAAGatctttgaagagccgaatgt...42...gagaaatcct ttcaatga
C.Bri  ttgatttc tggaaGTGGAGAGCagTGAAcgatctttgaagagctgaat--...44...gagaaatcct tttagaga
C.Bre  ttgatttc tagatgaTGGAGAGCagTGAAAtgatcgttgaagtgcgcaat--...44...gaaaagtacct ttaagtga
C.Rem  ttgatttc tggatgaTGGAGAGCagTGAAAgatccttgaagtgcgcaatg-...43...gagaagtatccc ttgagtga
***** * * * ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV.8310216.8310313.1 type=EN

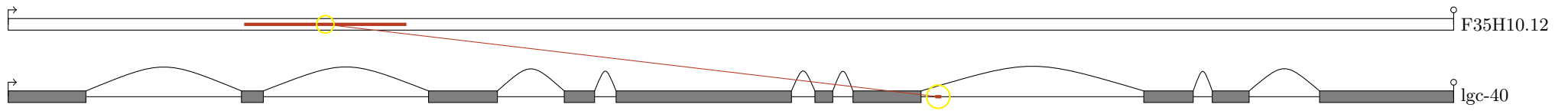
```

C.Ele  caggggta tgctacttttt...313...--ttatattgaaacagtaata-TTTCAGCTC TTCAcaaa
C.Bri  catcggta agaaacaaaaa...211...ggacgag--tgaatatctgaat---TTCAGCTC TTCActaa
C.Bre  ctactgta agttcccacat...233...---caag--agaattcctattgttTTCAGCTC TTCAcaaa
C.Rem  cagcggta cgttcttctct...221...-gtcgaatctgaaactcgtaa---TTTCAGCTC TTCAcgaa
*      ***  *                               ***                               ***** ***** **

```

id=301471 gene=ZK616.1 name=ZK616.1 segment=chrIV.5403971.5404325.1 type=IN VIEW

Figure 129: CS=5.52



```

C.Ele  ttgatttc tagatgaTGAAGAGCAGTgaagatcttgaagagccga-----..46..gagaaatcct  ttcaatga
C.Bri  ttgatttc tggaagaTGAAGAGCAGTGAaCGATccttgaagagctgaatgctc...40..gagaaatcct  ttagaga
C.Bre  ttgatttc tagatgaTGAAGAGCAGTgaatgatcgttgaagtgcga-----..46..gaaaagtacct  ttaagtga
C.Rem  ttgatttc tggatgaTGAAGAGCAGTgaagatcttgaagtgtga-----..46..gagaagtatccc  ttgagtga
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV.8310216.8310313.1 type=EN

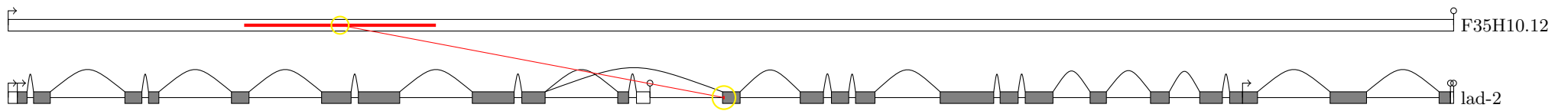
```

C.Ele  ggccacgc ttgtatgttgcttgactgctttcacaCGC-TaaGCTCAtTTTCagacaaaatattttgattcaa--...1630...-aaaccaaatc  agaacgag
C.Bri  ggccacgc ttgtat-----GTTGcTTGCACTGCTTTTCacacgctaagctcattttcag--...386...aattca-ttttc  agaacgaa
C.Bre  ggccacgc ttgtatgttgcttgactgctttcacaCGC-TaaGCTCAtTTTCagactgaa--tttcgattcaaat...448...-attcatttttc  agaatgaa
C.Rem  ggccacgc ttgtatgttgcttgactgctttcacaCGC-TaaGCTCAtTTTCagactgaa--tttcgattctac-...433...-gtcccaatttc  agaatgaa
***** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=154224 gene=T24D8.1 name=lgc-40 segment=chrX.2362343.2364048.1 type=IN

Figure 130: CS=5.36



```

C.Ele  ttgatttc tagatgatGGAAGAGCagTGAAGATctttgaagagccgaatgttc...40...gagaaatcct ttcaatga
C.Bri  ttgatttc tggagatGGAAGAGCagTGAAcgatctttgaagagctgaat----.44..gagaaatcct ttagaga
C.Bre  ttgatttc tagatgatGGAAGAGCagTGAAtgatcgttgaagtgcgaat----.44..gaaaagtacct ttaagtga
C.Rem  ttgatttc tggatgatGGAAGAGCagTGAAGatctttgaagtgtgaatgt--.42..gagaagtatccc ttgagtga
***** * * * ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV\_8310216\_8310313\_1 type=EN

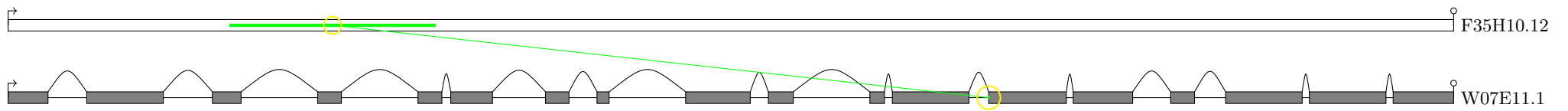
```

C.Ele  ctcaactg taaccgtttgtc...2404...-tccccaacaaaaacacctcaATTtatTTCA GCTCTTCc
C.Bri  ttccactg taactttttgcc...1727...--ttaaaaaacaa----tttctatt-TTCA GCTCTTCc
C.Bre  ttcaacta tcagttttgtg...1583...-----aaaaacaatattttttatt-TTCA GCTCTTCc
C.Rem  ttcaactg ttaatgattgag...1532...cttttgaaaaacacattta----TTTTCa GCTCTTCc
** ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=125207 gene=Y54G2A.25 name=lad-2 segment=chrIV\_2969859\_2972304\_-1 type=IN VIEW

Figure 131: CS=5.36



```

C.Ele  ttgatttc tagatgaTGGAAAGAGCagTGAAAgatctttgaagagccgaatg---.43...gagaaatcct ttcaatga
C.Bri  ttgatttc tgaagaTGGAAGAGCagTGAAc gatctttgaagagctgaat---.44...gagaaatcct ttagaga
C.Bre  ttgatttc TAGATgaTGGAAGAGCagTGAAtgatcgttgaagtgcgaat---.44...gaaaagtatcct ttaagtga
C.Rem  ttgatttc TGGATgaTGGAAGAGCagTGAAAGAtccttgaagtgcgaatgtt...41...gagaagtatccc ttgagtga
***** * ** ***** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **

```

id=75978 gene=F35H10.12 name=F35H10.12 segment=chrIV.8310216.8310313.1 type=EN

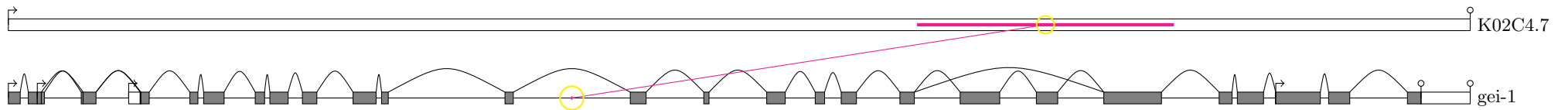
```

C.Ele  gttgtga-- caaatgttaaa-----...83...--actgtaaattattatccaa-TTCAGCTCaTCTA cgacttaa
C.Bri  --tagtaaag cagaatgaaaa-----...171...-atcagtaa-cgaatctctatt--TTCAGCTCaTCTA cgatctca
C.Bre  -----gtgagtgtgaataagtgtc...129...gtttcctaa--tgatgtcttt--TTCAGCTCaTCTA cgATCTAa
C.Rem  aatgatta-- gaaaatgtcaaa-----...128...-tcctataatctcatttctctTTTTTCAGCTCaTCTA cgATCTGa
          * ** ***                *** **          ***** ** ** * *

```

id=131522 gene=W07E11.1 name=W07E11.1 segment=chrX.10099712.10099840.1 type=IN

Figure 132: CS=5



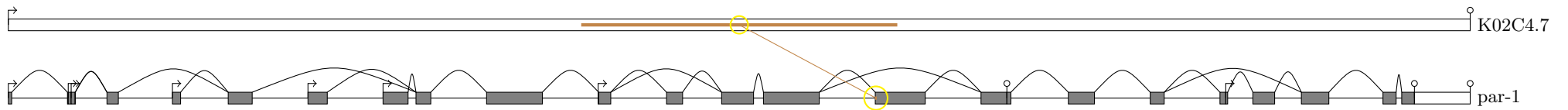
|       |          |  |                      |                                   |                |          |
|-------|----------|--|----------------------|-----------------------------------|----------------|----------|
| C.Ele | cgaaatcg | cacctcggcccgactccaaccctggggcgaaatgagc  | TTTTtaACTCAGAT       | -----gcttcagtaata-----            | atgaggggaac    | aaatTTTg |
| C.Bri | agaaattg | cacctcggcccgactccaaccctggggcgaaatgagc  | TTTTtaACTCAGATgTCTCT | aat---t-----                      | -----          | aaatTTTt |
| C.Bre | agaaatcg | cacctcggcctgactccaaccctggaggcgaaacgagc | TTTTtaACTCAGAT       | -----gtctcatgaatagaatggcactgcactc | taatagaggggcat | ggatTTTt |
| C.Rem | agaaattg | cacctcggcctgactccaaccctggaggcgaaacgagc | TTTTtaACTCAGATgTCTC  | -att---taaaa-----                 | agagttgcac     | aaatTTTg |
|       | **** *   | *****                                  | *****                | *****                             | *****          | ****     |

id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII.8091657.8091730.1 type=EN

|       |           |  |                        |  |           |         |
|-------|-----------|--|------------------------|--|-----------|---------|
| C.Ele | ttgaaggt  | tagTTTTatgat...1229...-----gtagaaaaaggaggcgaa- | ATCTgcGAGTcAAAA        | cagcaagaacctgcctaatt...3130...ttatTTTcagaa | ggaaaact  |         |
| C.Bri | tcgaaggt  | aaggaaccag...877...tttTgtccgcctaaccggg-        | AGAGGaaATCTacGAGTcAAAA | cagagatgggagggaaaaa...1575...atTTTtCagaa   | ggaaaatt  |         |
| C.Bre | ttgatggt  | gagTTgcaattg...734...-----tagcgctag-cagagcgaa- | ATCTgcGAGTcAAAA        | cagaagacgttagatgagaa...1493...ttgattcagaa  | ggaaaact  |         |
| C.Rem | ttgaaggt  | aagagaagtttg...596...--gcgtagcggccagccagaag    | GAGaaATCTacGAGTcAAAA   | cagagacggttagatgagaa...1481...atggTTTcagac | ggaaagct  |         |
|       | * ** ** * | **   | * * * * *              | *****                                      | * * * * * | ***** * |

id=24832 gene=F45H7.2 name=gei-1 segment=chrIII.3350565.3355002.1 type=IN

Figure 133: CS=5.72



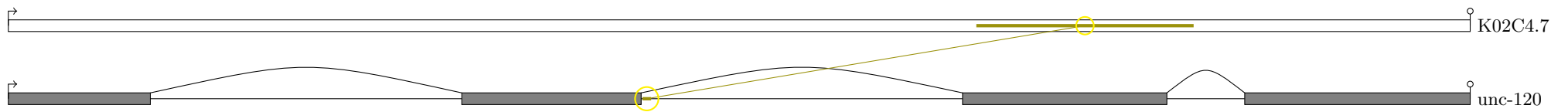
|       |          |                       |              |       |  |                |                   |      |
|-------|----------|-----------------------|--------------|-------|--|----------------|-------------------|------|
| C.Ele | cgaaatcg | cacctcggcccgactccaacc | CTGGGGGCGAAA | GAGC  | ttttaaactcagatgcttcag                      | -----          | taataatgaggaac    | aaat |
| C.Bri | agaaattg | cacctcggcccgactccaacc | CTGGGGGCGAAA | GAGC  | ttttaaactcagatgtctc                        | -----          | taattt            | aaat |
| C.Bre | agaaatcg | cacctcggcctgactccaacc | CTGGAGGCGAAA | GAGC  | ttttaaactcagatgtctcatgaatagaatggcactgcactc | taataatgaggaac | ggat              |      |
| C.Rem | agaaattg | cacctcggcctgactccaacc | CTGGAGGCGAAA | GAGC  | ttttaaactcagatgtctc                        | -----          | atttaaaagagttgcac | aaat |
|       | **** *   | *****                 | *****        | ***** | *****                                      | *****          | *****             | **** |

id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII\_8091657\_8091730\_1 type=EN

|       |          |                        |                     |         |       |        |
|-------|----------|------------------------|---------------------|---------|-------|--------|
| C.Ele | acccaaag | agtccaagtgag...1032... | ttgtgttctctagagtgt  | GCTC    | TTCG  | TTCAGc |
| C.Bri | gccaaagg | agacgaagtgag...1110... | ttgtgaccgttagagtgt  | GCTC    | TTCG  | TTCAGc |
| C.Bre | acccaaag | agacaaagtgag...1119... | ttatcgttctctagagtgt | GCTC    | TTCG  | TTCAGc |
| C.Rem | accgaaag | agatcaagtgag...1384... | tcattgtgtagttgagtgt | GCTC    | TTCG  | TTCAGc |
|       | ** ** *  | ** *****               | *                   | * ***** | ***** | *****  |

id=73265 gene=H39E23.1 name=par-1 segment=chrV\_14118972\_14120045\_-1 type=IN

Figure 134: CS=5.04



```

C.Ele cgaaatcg cacctcggcccgactccaaccctggggcgaaatGAGCTTTTAACTCAGATGcttcag-----taataatgaggaac aaattttg
C.Bri agaaattg cacctcggcccgactccaaccctggggcgaaatgagcTTTTAACTCAGATGtctc-----taatt----- aaattttt
C.Bre agaaatcg cacctcggcctgactccaaccctggaggcgaaacgagcTTTTAACTCAGATGtctcatgaatagaatggcactgcactctaataagagggcat ggattttt
C.Rem agaaattg cacctcggcctgactccaaccctggaggcgaaacgagcTTTTAACTCAGATGtctc-----atttaaaaagagttgcac aaattttg
**** * ***** ***** ***** ***** ***** ***** ***** ** *****

```

id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII\_8091657\_8091730\_1 type=EN

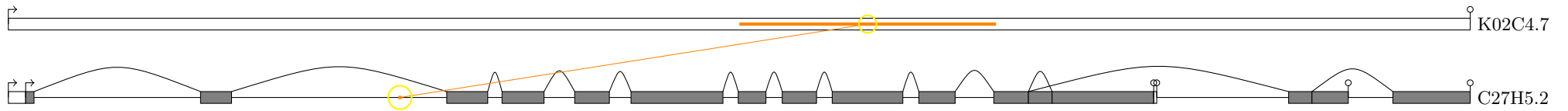
```

C.Ele ccCATCgg TGAGtTTAGGAAcGCTC---ttcctattacaacgcgcgtc...865...ttgatttcaga tgccaaac
C.Bri ccCATCgg TGAGtTTAGGAAaacgaatcttccctattaca-----...1053...cttattttcaga tgggtggt
C.Bre ccCATCgg TGAGtTTAGGAA-acgaatctt-cctattacaac-----...441...cttattttcaga tggctggt
C.Rem ccCATCgg TGAGtTTAGGAG---atattcttccatattacaacg-----...413...caaatttcaga tggctggc
***** ***** * * ***** **** **

```

id=89654 gene=D1081.2 name=unc-120 segment=chrI\_8461279\_8462193\_1 type=IN

Figure 135: CS=5.04



|       |          |                                |                |                                       |                    |          |
|-------|----------|--------------------------------|----------------|---------------------------------------|--------------------|----------|
| C.Ele | cgaaatcg | cacctcggccccgactccaaccctgggggc | GAAAtgAGCTTTTT | aactcagatgcttcag-----                 | taataatgagggaac    | aaattttg |
| C.Bri | agaaattg | cacctcggccccgactccaaccctgggggc | GAAAtgAGCTTTTT | aactcagatgtctc-----                   | taattt-----        | aaattttt |
| C.Bre | agaaatcg | cacctcggcctgactccaaccctggaggc  | GAAAcgAGCTTTTT | aactcagatgtctcatgaatagaatggcactgcactc | taatagaggggcat     | ggattttt |
| C.Rem | agaaattg | cacctcggcctgactccaaccctggaggc  | GAAAcgAGCTTTTT | aactcagatgtctc-----                   | atttaaaaagagttgcac | aaattttg |
|       | **** *   | *****                          | *****          | *****                                 | *****              | ****     |

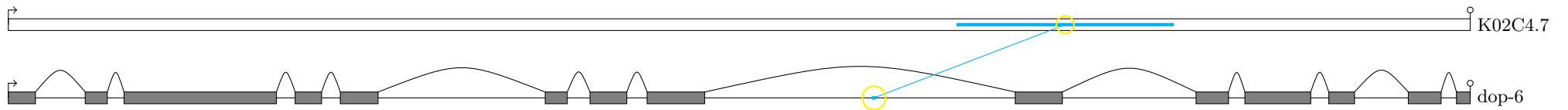
id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII.8091657.8091730.1 type=EN

|       |          |                       |                       |              |                                |              |          |
|-------|----------|-----------------------|-----------------------|--------------|--------------------------------|--------------|----------|
| C.Ele | taacggaa | cacaagaagata...537... | g-agagagagagagagagaag | AAGAAGCTTTTC | ttatctgttacagtctgtgt-...110... | tgggatgtacta | ccgagaaa |
| C.Bri | aaacagaa | gtcaaaaaagtt...752... | attgtcaccgaaaaa-ggcag | AAGAAGCTTTTC | ttatcagttg-ggtctccaga...85...  | tgggatgtacta | tcgagaaa |
| C.Bre | gtgaggaa | ggcaaatgaat...468...  | -ttgaattgaatgaaatag   | AAGAAGCTTTTC | ttatctgtcactgtctgtt-...128...  | tggatgtacta  | cagagaaa |
| C.Rem | gaattgag | tgagagatggtt...367... | a-tgtcatcgaagtgaag    | AAGAAGCTTTTC | ttatctgtcactgtctggat-...116... | tgggatgtacta | tcgagaaa |
|       | **       | * *                   | * * *                 | *****        | **                             | ***          | *****    |

id=284403 gene=C27H5.2 name=C27H5.2 segment=chrII.7157103.7157825.1 type=IN VIEW

Figure 136: CS=5.32





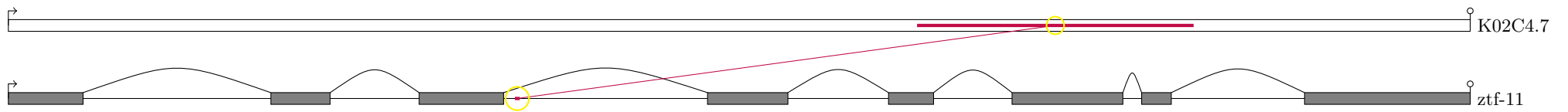
|        |          |   |                    |   |            |          |
|--------|----------|---|--------------------|---|------------|----------|
| C. Ele | cgaaatcg | cacctcggcccgactccaaccctggggcgaaatga     | GCTTTTAACTCAGAT    | -gcttcagtaata-----                      | atgagggaac | aaattttg |
| C. Bri | agaaattg | cacctcggcccgactccaaccctggggcgaaatgagc   | TTTTTAACTCAGATGTCT | -----cta-----                           | att-----t  | aaattttt |
| C. Bre | agaaatcg | cacctcggcctgactccaaccctggaggcgaaacgagct | TTTTAACTCAGATGTCT  | -catgaatagaatggcactgcactctaatagaggggcat |            | ggattttt |
| C. Rem | agaaattg | cacctcggcctgactccaaccctggaggcgaaacgagct | TTTTAACTCAGATGTCT  | caTTTAAAa-----                          | agagttgcac | aaattttg |
|        | **** *   | *****                                   | *****              | *****                                   | *****      | ****     |

id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII.8091657.8091730.1 type=EN

|        |          |  |                      |        |             |  |          |
|--------|----------|--|----------------------|--------|-------------|--|----------|
| C. Ele | cgccactg | gtagttgcgag...1120...-----             | tcaacatatgaaaaagacga | ATTGTg | AGTTAGAGAGT | --atactgaaatagtaacatt...387...aattttttcag            | gttgaaaa |
| C. Bri | caccattg | gtagtcacagg...974...-----              | atcacttcaacatatgaaaa | AGATGa | ATTGTg      | AGTTAGAAGcagtacataaataacagtaa---...366...atatttttcag | gttgaaaa |
| C. Bre | caccgttg | gtagtcacaag...284...-----              | atcgtttcaacatatgaaaa | AGATGa | ATTGTg      | AGTTAGAG---tatactcggaacagtaacct...388...aagtatttcag  | gtagagaa |
| C. Rem | caccgttg | gtagtcacaca...429...ctccgatcattcaacata | TGAAAa               | AGATGa | ATTGTg      | AGTTAGAG---tatactcggaacagtaacta...367...atagatttcag  | gttgagaa |
|        | ** ** *  | ***** *                                | *****                | *****  | *****       | ** ** *  | ** ** *  |

id=192401 gene=C24A8.1 name=dop-6 segment=chrX.4323376.4324964.1 type=IN

Figure 137: CS=5.04



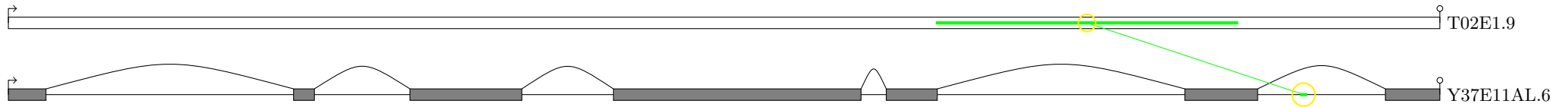
|       |          |   |                  |                            |                   |          |
|-------|----------|---|------------------|----------------------------|-------------------|----------|
| C.Ele | cgaaatcg | cacctcggccccgactccaaccctgggggcgaaatgagc | TTTTtaACTCAGATGC | ttcag-----                 | taataatgagggaac   | aaattttg |
| C.Bri | agaaattg | cacctcggccccgactccaaccctgggggcgaaatgagc | TTTTtaACTCAGATGT | ctc-----                   | taattt-----       | aaattttt |
| C.Bre | agaaatcg | cacctcggcctgactccaaccctggaggcgaaacgagct | TTTTtaACTCAGATGT | ctcatgaatagaatggcactgcactc | taatagaggggcat    | ggattttt |
| C.Rem | agaaattg | cacctcggcctgactccaaccctggaggcgaaacgagc  | TTTTtaACTCAGATGT | ctc-----                   | atttaaaagagttgcac | aaattttg |
|       | **** *   | *****                                   | *****            | *****                      |                   | ****     |

id=206686 gene=K02C4.7 name=K02C4.7 segment=chrII.8091657.8091730\_1 type=EN

|       |          |            |                        |                       |                                  |                          |                       |          |
|-------|----------|------------|------------------------|-----------------------|----------------------------------|--------------------------|-----------------------|----------|
| C.Ele | tcgtcaaa | ggt-----   | gagaagccaaagaattt      | GCATTtTGAGTGAAA       | -agaagtgaagtgggaatgg--g...744... | atagattttca              | gagcccaa              |          |
| C.Bri | tcgtcaaa | ggt-----   | aaaggaag-----          | ggggaaaagaatgaaattt   | GCATTtTGAGTGAAA                  | ctgagaagacacaacacat---   | ...329...tttttcttcca  | gagcccac |
| C.Bre | ttgtcaaa | ggttaagagt | gaaaaggaagatgagtagaagc | gggggtaaaggatg-aattt  | GCATTtTGAGTGAAA                  | ctgaa--gaattgacacggtg... | ...774...ctgtattttca  | gagcatga |
| C.Rem | -----    | -----      | aaggaag-----           | agtggaagagagatg-aattt | GCATTtTGAGTGAAA                  | ttcaacaggaagaagaaga---   | ...545...ttctaattttca | gagcccac |
|       |          |            |                        | * * * *****           | *                                | *                        | * ** **               | ****     |

id=199132 gene=F52F12.6 name=ztf-11 segment=chrI.9906325.9907136\_-1 type=IN

Figure 138: CS=5.52



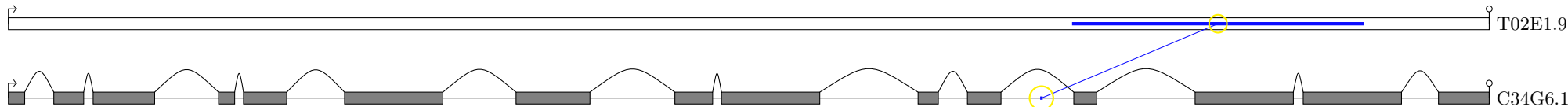
|       |          |  |                    |                   |          |
|-------|----------|--|--------------------|-------------------|----------|
| C.Ele | cgcgTTTT | ccacatgatgatacaaccatagcatgagctggcagca  | GTGATcGCTAAAtGTCAT | agttacacagatgggt  | tttcgctt |
| C.Bri | cgcgTTTT | ccatgtgatgataaaactatagcgtgagctggcagca  | GTGATcGCTAAAtGTCAT | tagttacactgatgggt | ttttgttt |
| C.Bre | agcgTTTT | ccaagtgatgataaaactatagcgtgagctggcagcat | TGATcGCTAAAtGTCAT  | tagttacactgatgggt | ttttgccg |
| C.Jap | cgactTTT | ccaagtgatgataaaactatagcgtgagctggcagca  | GTGATcGCTAAAtGTCAT | tagttacactgatgggt | tttgcaaa |
| C.Rem | ggcgTTTT | ccaagtgatgatacaactatagcgtgagctggccgcat | TGATcGCTAAAtGTCAT  | tagttacactgatgggt | ttttgcat |
|       | * **     | *** ***** **                           | ***** **           | ***** ***** ***** | ***** ** |

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI\_8224468.8224538.1 type=EN

|       |          |   |                  |   |           |
|-------|----------|---|------------------|---|-----------|
| C.Ele | gactatcg | gtaagcggTctt...45...atgccgccaccttcgTtcgc  | ATGATTAGCcaATCAT | -----aattctcgc---ccggaat...132...tctgt---ttgcag   | atcgatgt  |
| C.Bri | gactatag | gtgagTttttt...556...-ccgaaaatatacgtcgcT   | TGATTAGCcaATCAT  | -----aattctctcccctccgga---...97...-catatTttatag   | accgatgt  |
| C.Bre | aacgatcg | gtatgatgaatt...101...-gaggggatacacgcatgcc | TGATTAGCcaATCA   | -----taattcttacgtctctttcc---...89...-caaatcttatag | atcgatgt  |
| C.Jap | aaacattg | gtgagattaata...74...-ttttcgctcgtcgcTcgcT  | TGATTAGCcaATCAT  | aataataataaattctc---tgg---...122...-tatttaatttag  | ataaatgt  |
| C.Rem | aactattg | gtaggtTttttc...304...-taagcagTatagcTtgcc  | TGATTAGCcaATCA   | -----taattcttttctcctctc---...106...tctcaa---tttag | atcgatgt  |
|       | * **     | ** * * *                                  | *****            | *****   | * ** * ** |

id=242116 gene=Y37E11AL.6 name=Y37E11AL.6 segment=chrIV\_3665073.3665330\_-1 type=IN

Figure 139: CS=6.25



```

C.Ele  cgcgtttt ccacatgatgatacaacctagcatgagctggcagcagtgatcGCTAaaTGTCATAGTtacacagatgggt tttcgctt
C.Bri  cgcgtttt ccatgtgatgataaaactatagcgtgagctggcagcAGTGAcGCTAaaTGTCATAGTtacactgatgggt ttttgctt
C.Bre  agcgtttt ccaagtgatgataaaactatagcgtgagctggcagcattgatcGCTAaaTGTCATAGTtacactgatgggt ttttgccg
C.Jap  cgactttt ccaagtgatgataaaactatagcgtgagctggcagcAGTGAcGCTAaaTGTCATAGTTAactgatgggt tttgcaa
C.Rem  ggcgtttt ccaagtgatgatacaactatagcgtgagctggccgattgatcGCTAaaTGTCATAGTtacactgatgggt tttgcat
* ****
*** ***** **

```

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI\_8224468.8224538.1 type=EN

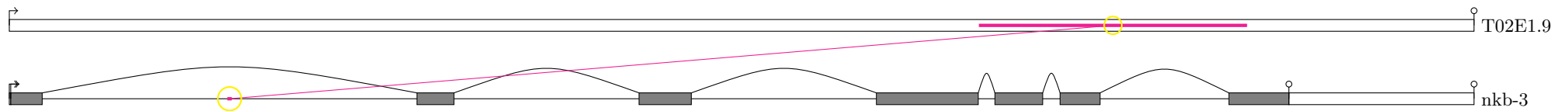
```

C.Ele  gtggaag  gtgctgattgc...159...-ttcgtttataattgtttttt---GCTAcTGACATGGC-----tt-tttgtttgatatactt-...133...-ttttatttacag atggaaga
C.Bri  acggaag  gtcctgaagaga...58...-attatttttatgagtatttt---GCTAcTGACATGGCttTTGTTaagaatctt-tctgtgtgga-----...40...-aattagtttcag atggaaga
C.Bre  taggcaag  gtgctgacaagt...95...aacaatttatactt-tttttt---GCTAcTGACATGGC-----t-tttgttcggaatctgggga...48...ggtgtt--tttcag atggagga
C.Jap  gcgtaag  gtgctaaccaga...33...cttcattttcac-actatttt-TGGCTAcTGACATGGCttTTGTTcggaatattgtttaatcggg-----...56...aatgtt--ttttag atggaaga
C.Rem  ttggaag  gtgctgaatgat...79...-tcatcaacat--ctattttattGCTAcTGACATGGC-----tt-tctgttcggaatccttct-...397...tcaatt--tttcag atggaaga
* *** ** ** *
* * * **** ***** ** * * ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** * ** ** ***** **

```

id=58791 gene=C34G6.1 name=C34G6.1 segment=chrI\_5912686.5913055.1 type=IN VIEW

Figure 140: CS=6.5



```

C.Bri cgcgttttccatgtgatgataaaactatagcgtgagctggcagcagtGATCGCTAaaTGTCATAgttacactgatgggttttgttt
C.Bre agcgttttccaagtgatgataaaactatagcgtgagctggcagcattGATCGCTAaaTGTCATAgttacactgatgggttttgccg
C.Jap cgacttttccaagtgatgataaaactatagcgtgagctggcagcagtGATCGCTAaaTGTCATagttacactgatgggttttgcaa
C.Rem ggcgttttccaagtgatgatacaactatagcgtgagctggccgcattGATCGCTAaaTGTCATAgttacactgatgggttttgcat
* ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** *****

```

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI\_8224468.8224538.1 type=EN

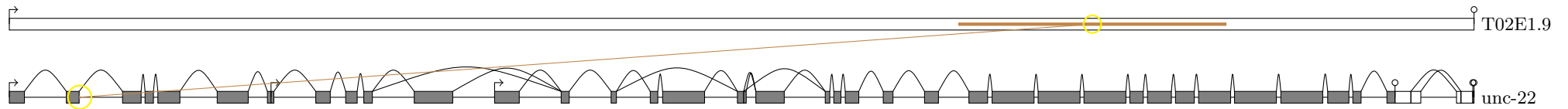
```

C.Bri gagaagagaataaaacggtg...457...----ggcataaaaaagtgcgcatgTGTGACGTAGCtGATCtggtaaagactgaattgtg...77...-----tattttccacatctttgca
C.Bre cggatgaaaacaaaacagtg...391...----gaggcataaaagtgcgctgTGTGACGTAGCtGATCtagtaagactgaatagagt...54...aaatactggtttattt-----ttca
C.Jap gcgaggaataaaaaacggtg...560...cctacgctacgcaaacgtca-----GTGACGTAGCtGATCtagtcaagactgaatagagt...205...---cactaaattgatt-----cgttgtt
C.Rem gagaagagaataaaacggtg...377...----gaggcataaaagtgcgcatgTGTGACGTAGCtGATCtagtaagactgaatagagt...84...ttctggtagttttggt-----ttca
** ** * ***** ** * ** ** * ***** ** ***** ** *

```

id=178045 gene=F55F3.3 name=nkb-3 segment=chrX\_13768518.13770405.-1 type=IN

Figure 141: CS=5.64



```

C.Ele  cgcgtttt ccacatgatgatacaacctagcatgagctggcagcagTGATCGCTaAATGTCatagttacacagatgggt tttcgctt
C.Bri  cgcgtttt ccatgtgatgataaaactatagcgtgagctggcagcagTGATCGCTaAATGTCatagttacactgatgggt ttttggtt
C.Bre  agcgtttt ccaagtgatgataaaactatagcgtgagctggcagcaTTGATcGCTaAATGTCatagttacactgatgggt ttttgccg
C.Rem  ggcgtttt ccaagtgatgatacaactatagcgtgagctggccgcaTTGATcGCTaAATGTCatagttacactgatgggt ttttgcac
*****

```

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI.8224468.8224538.1 type=EN

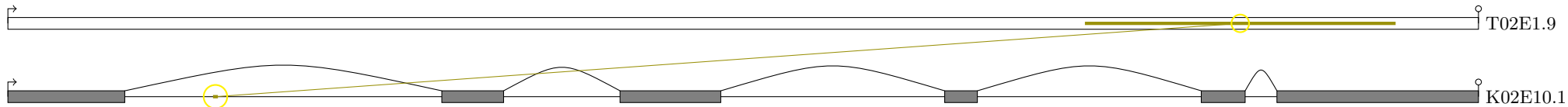
```

C.Ele  aCATTAGT GATCAaggtgagacatTTTTGAGAG---...749...aaaataaaaatt attccagg
C.Bri  aCATTAGT tATCAaggtgagaagaagataaaaa---...538...aaaaaaaaattt ataggaac
C.Bre  aCATTAGT tATCAaggtgagaaaatctt--ctttcg...240...cttaaaaactgt attccagg
C.Rem  aCATTAGT tATCAaggtgagagaa--atgaagttt...193...aagcattctgtg atttcagg
*****

```

id=26673 gene=ZK617.1 name=unc-22 segment=chrIV.12008397.12009182.-1 type=IN

Figure 142: CS=6.64



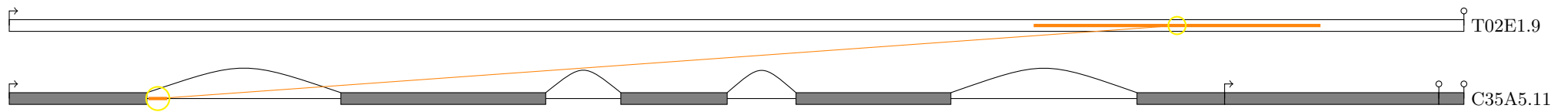
|       |          |  |                          |              |            |
|-------|----------|--|--------------------------|--------------|------------|
| C.Ele | cgcgtttt | ccacatgatgatacaacctagcatgagctggcagcag        | TGATcGCTAAatGTCAtaGTTA   | cacagatgggt  | tttcgctt   |
| C.Bri | cgcgtttt | ccatgtgatgataaaactatagcgtgagctggcagcagtgatcg | GCTAAatGTCAtaGTTA        | caactgatgggt | ttttggtt   |
| C.Bre | agcgtttt | ccaagtgatgataaaactatagcgtgagctggcagcattgatc  | GCTAAatGTCAtaGTTA        | caactgatgggt | ttttgccg   |
| C.Jap | cgactttt | ccaagtgatgataaaactatagcgtgagctggcagc         | AGTGatCGCTAAatGTCAtaGTTA | caactgatgggt | tttgcaaa   |
| C.Rem | ggcgtttt | ccaagtgatgatacaactatagcgtgagctggccgcattgatc  | GCTAAatGTCAtaGTTA        | caactgatgggt | ttttgcat   |
|       | * ****   | *** ***** ** *                               | ***** ** *               | ***** ** *   | ***** ** * |

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI\_8224468.8224538.1 type=EN

|       |          |  |                  |              |   |          |
|-------|----------|--|------------------|--------------|---|----------|
| C.Ele | tcttttca | aggtatgactac...157...tggatcctttaa-cacacgcc | TAAGTACTGATTTAGC | acGTCA       | acaatcgggtaattccttag...494...caatttgattgc | agattggt |
| C.Bri | tcttttca | aggtaagttggt...559...-gggtccttcacgggcacgca | TAAGTACTGATTTAGC | -acaca-gtagt | gaaaacaatt-----...209...ccaatcaattac      | agatagtt |
| C.Bre | tcttttca | aggtaagtattt...168...ggggtcctttac-cacacgca | TAAGTACTGATTTAGC | acgtaaacaat  | cgggtaat-----...352...caattccattac        | agatcggt |
| C.Jap | tcttttca | aggtagattt...119...-tgtccatggttctaccacgca  | TAAGTACTGATTTAGC | CGCGTT       | aacaacaccggtaattatg-...370...aatttcattgt  | agatcggt |
| C.Rem | tcttttca | aggtaagtcttt...161...ggggtcctttac-aacacgca | TAAGTACTGATTTAGC | acgtaaacaat  | cgggtaat-----...372...caatttcattac        | agatcgtc |
|       | *** ** * | **** * * *                                 | ***** ** *       | ***** ** *   | ***** ** *                                | **** **  |

id=69517 gene=K02E10.1 name=K02E10.1 segment=chrX\_2496436.2497169.1 type=IN

Figure 143: CS=6



```

C.Ele  cgcgtttt ccacatgatgatacaacctagcatgagctggcagcagtgatCGCTaAATGtCATAGttacacagatgggt tttcgctt
C.Bri  cgcgtttt ccatgtgatgataaaactatagcgtgagctggcagcagtgatCGCTaAATGtcATAGttactgatgggt ttttggtt
C.Bre  agcgtttt ccaagtgatgataaaactatagcgtgagctggcagcattgatCGCTaAATGtcATAGttactgatgggt ttttgccg
C.Rem  ggcgtttt ccaagtgatgatacaactatagcgtgagctggccgattgatCGCTaAATGtcATAGttactgatgggt ttttgcatt
***** ** ***** **

```

id=162943 gene=T02E1.9 name=T02E1.9 segment=chrI\_8224468.8224538.1 type=EN

```

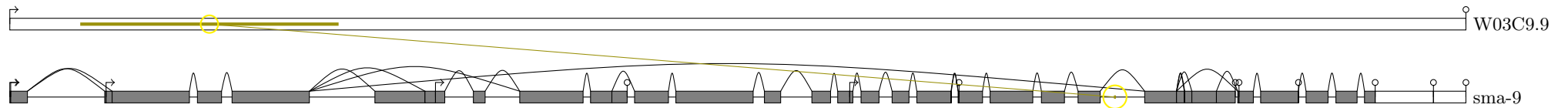
C.Ele  tCTGTGCA TTGGCGtaagttaaatgttactgttt-...86...tttgtctcaaca ttcagaat
C.Bri  tCTGTtCA TTGGCGtaagtt-attgttccattttc...42...aaacatgaaaat ttcagaat
C.Bre  tCTGTcCA TTGGCGtaagtttttagttaacaaat-...74...ccataagttttt ttcagaat
C.Rem  tCTGTtCA TTGGCGtgagttatagatttcggtta-...204...cacattttttt ttcagaat
***** ** ***** **

```

id=97421 gene=C35A5.11 name=C35A5.11 segment=chrV\_10502811.10502934.-1 type=IN

Figure 144: CS=5





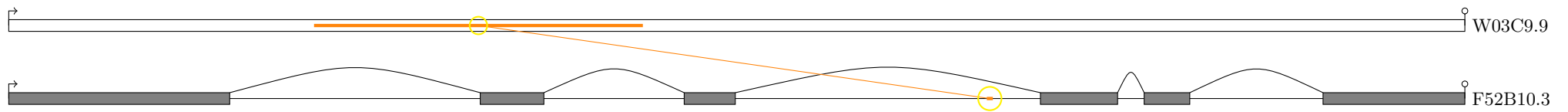
|       |     |       |             |          |  |          |
|-------|-----|-------|-------------|----------|--|----------|
| C.Ele | aat | TGAGC | ATATCAC     | gACTGTTG | gtgaggtgatttcattagctgaggctttttacactt--ttaacacttt | ttcggtga |
| C.Bri | aat | TGAGC | ATATCACTG   | acTGTGGT | gaggtgactacatt-tctgaggcttttgaatttcattatttgggt    | tttggtgt |
| C.Bre | act | TGAGC | ATATCACTGA  | cTGT     | ggtgaggtgataacatt-tctgaggctttt---cgt--tttatttttt | ctagttca |
| C.Rem | aat | TGAGC | ATATCACTGAC | tGTTGGT  | gaggtgattaactt-tctgaggcattttg-----ttaattcttt     | ttgagtta |
|       | *   | ***** | *****       | *****    | ** ***** **                                      | ** * *   |

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII\_11960834\_11960895\_1 type=EN

|       |          |                   |        |                          |                     |             |           |                           |                            |              |                      |          |              |          |
|-------|----------|-------------------|--------|--------------------------|---------------------|-------------|-----------|---------------------------|----------------------------|--------------|----------------------|----------|--------------|----------|
| C.Ele | gtaaaca  | tataactgaatc---   | .42... | aacgataatgtgtgtgacg----- | TAATGGT---          | GTGGTA      | tgTGCTTA  | atcaatt-ccacaggggaagca... | 161...                     | acagctattgtc | gagaagct             |          |              |          |
| C.Bri | gtagttt  | tcaacctaattt---   | .28... | -----                    | tgttgtagctgaaagttag | TGTTAGT     | GCGGTGGTA | tgTGCTTA                  | atca-ttatacacaggtgaaaaa... | 163...       | tcagcaatagtc         | acgagact |              |          |
| C.Bre | gtgagttt | tcaa---aaagtggg.. | .49... | -----                    | tgtgtgtgacgtgaaagta | AGTATGGT--- | GTGGTA    | tgTGCTTA                  | atca-ttatacacagataaagaa... | 131...       | ccagctattgtc         | gataaact |              |          |
| C.Rem | gtaagtac | tacatgaaattg---   | .45... | -----                    | taatatgtgtgacgtgaaa | GTTAGTGTTA  | g         | ---                       | GTGGTA                     | tgTGCTTA     | atcattatcataggggttg- | 148...   | ccagccattgtc | gagaagct |
|       | ** *     | * * *             |        | *****                    |                     | * **        | *****     | ** ** **                  | **** ** **                 |              | * **                 |          |              |          |

id=69860 gene=T05A10.1 name=sma-9 segment=chrX\_10780543\_10780830\_1 type=IN

Figure 145: CS=5.36



```

C.Ele aattgagc ATATCACTGacTGTGGGTGAGGTGATTTCatta---gctgaggcTTTTtacactt--ttaacacttt ttcgttga
C.Bri aattgagc atATCACTGacTGTGGGTGAGGTG----actacatttctgaggcTTTgtaattcattatttggtt tttgttgt
C.Bre acttgagc atATCACTGacTGTGGGTGAGGTG----ataacatttctgaggcTTT--tcgttttatttt----tt ctagtcca
C.Rem aattgagc atATCACTGacTGTGGGTGAGGTG----attaacttctgaggc-----atTTgttaattcTTT ttgagtta
* *****

```

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII\_11960834\_11960895\_1 type=EN

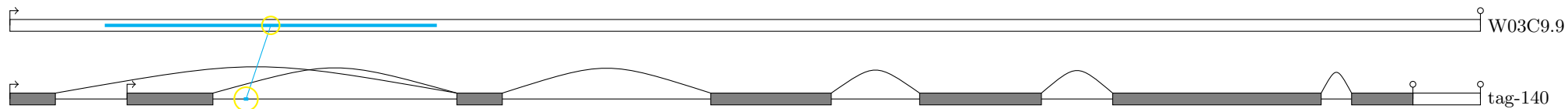
```

C.Ele ttacaggt aaaaatgggtga...2036...-----agactgcttctctggcattcGAAACGTCAGTACAGTATGATGTT-----acactcagaagaacatac...65...ttcgtttcagga aatcctca
C.Bri ttgaaggt gaggtggaacta...978...ggttcaagaccacttc-----gaaaCGTCACTAGCACAGTATGATctagggtgctagtcagaac-----...79...tcatttcagga gatcctta
C.Bre ctacaggt gagaacacgcga...677...-----cgcttatttaccagcggataCGTCACTAGCACAGTATGATctacagtgctaatacagaag-----...81...atggtttcagga aattctga
C.Rem ctgcaggt aattttctgaaa...531...-----cactttttacaacacgtagaCGTCACTAGCACAGTATGATctacagtgctaatacagaac-----...81...atgatttcagga aatcctcg
* **** * * ** * ***** * ***** ** ***** **

```

id=56738 gene=F52B10.3 name=F52B10.3 segment=chrX\_2893393\_2895581\_-1 type=IN

Figure 146: CS=6.24



```

C.Ele  aattGAGC atATCAcTGACTGtTGGTGAGGTGat ttcattagctgaggctttttacactt--ttaacacttt ttcgttga
C.Bri  aattGAGC atATCAcTGACTGtTGGTGAGGTGactacatt-tctgaggcttttgaatttcattatttggtt tttgttgt
C.Bre  acttGAGC atATCAcTGACTGtTGGTGAGGTGataacatt-tctgaggcttt--tcgttttatttt---tt ctagtcca
C.Rem  aaTTGAGC atATCAcTGACTGtTGGTGAGGTgattaactt-tctgaggc-----at tttgttaattcttt ttgagtta
* ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII\_11960834\_11960895\_1 type=EN

```

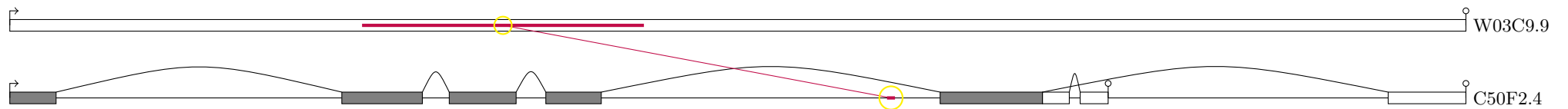
C.Ele  gtggtaag tatt-----gttcagttttgtatctatgaagatttttagagacacgt-----
C.Bri  gtggtaag ttcc-----ttttctcaaattcccagtggtcagagccttgtccagta-----
C.Bre  gtggtaag ttcttgagagttttccactttttatcattcactggtcactcctcttctctctagtggaca-----cgatgatacaaga-----aaag
C.Rem  gtggtaag tcct-----atgtccaaagtggacatatgtccgtatgatacaagagtgtggacacagtg
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

C.Ele  -----ttattgtctaCACTcTTATCAcTGGTCATGATGTTc---taacacattt-gaacaccgc--...659...tattcagaacgc ttcacagc
C.Bri  -----tgttgtcgaCACTcTTATCAcCAGTCATGATGTTc---taacacattt-gaacaccgc--...517...tcttcagaacgc ctcacagc
C.Bre  tc-----ttgtttgcaaCACTcTTATCAcCAGTCATGATGTTc---taacacattt-gaacaccgc--...926...cgttcagaacgc ctcacagc
C.Rem  tccactcattgtttgccaacTCTTATCAcCAGTCATGATGTTCAA---cacatcttgaaaagagatgc...1216...acttcagaacgc ctcacagc
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=68118 gene=T11F9.2 name=tag-140 segment=chrV\_11463482\_11464250\_1 type=IN

Figure 147: CS=5



```

C.Ele  aattgagc  atatcacTGACTGTTGGTGAaggtgatttcattagctgaggctttttacactt--ttaacacttt  ttcgttga
C.Bri  aattgagc  atatcacTGACTGTTGGTGAaggtgactacatt-tctgaggcttttgaatttcattatttggtt  tttgttgt
C.Bre  acttgagc  atatcacTGACTGTTGGTGAaggtgataacatt-tctgaggcttt--tcgttttatttt----tt  ctagtcca
C.Rem  aattgagc  atatcacTGACTGTTGGTGAaggtgattaactt-tctgaggc-----atthttgtaattccttt  ttgagtta
* *****

```

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII.11960834.11960895.1 type=EN

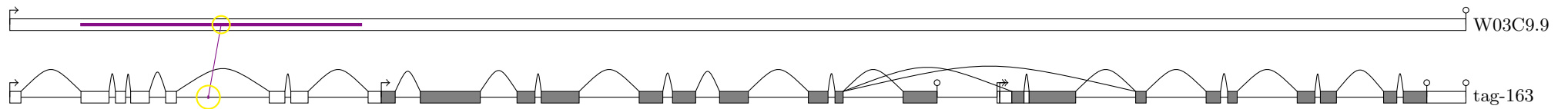
```

C.Ele  agccgtct  ggtaagtctttg...1031...---cttacatcatttcggtggtgTCACaaCAATtGTCAattgaccgagtatctctctc...54...tcctttttttca  ggagacag
C.Bri  aagcgtct  ggtacgtttttt...553...catcttgcacagagagatg---TCACaaCAATtGTCAatttaagcgagtacctcctcg...84...tcttttttttca  ggtgacag
C.Bre  aagcatct  ggtaagtttctc...888...catcttgcacattcggatg---TCACaaCAATtGTCAattaatccgactacctccaca...75...gtgtttttttca  ggagacag
C.Rem  aagcatct  ggtatgtttttt...300...catcttgcacatttggatg---TCACaaCAATtGTCAatttaaccgagtatctccaca...77...tcatttttttca  ggtgacag
* * ***  **** * * * *          ** ***** * ** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=68632 gene=C50F2.4 name=C50F2.4 segment=chrI.3889254.3890417\_-1 type=IN

Figure 148: CS=6.48



```

C.Ele aaTTGAGC ATAtCACTgactgttggtagggtgattcattagctgaggctttttacactt--ttaacacttt ttcggtga
C.Bri aaTTGAGC ATAtCACTgactgttggtagggtgactacatt-tctgaggcttttgaatttcattatttggtt tttgttgt
C.Bre acTTGAGC ATAtCACTgaCTGTTGGTgagggtataacatt-tctgaggcttttcgt-----tttatttttt ctagttca
C.Rem aaTTGAGC ATAtCACTgactgttggtagggtgattaactt-tctgaggc-----atthttgtaattccttt ttgagtta
* ***** ** ***** ** *

```

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII\_11960834\_11960895\_1 type=EN

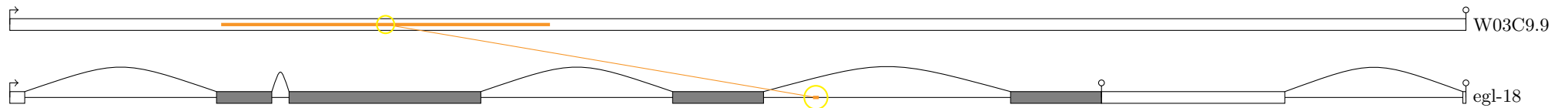
```

C.Ele gcttcac gtaagttttgca...218...--tctttcctttttgtgctcag-----GGTGttTATGctCTCGGaaatcactttgtcttctct...511...aatagtttcag acctggat
C.Bri gcttcctc gtgagtttgaaa...349...--tataggggtgtcgtgtgttg-----GGTGttTATGctCTCGGaaatcactttgtcttctct...278...tacgatttcag ccctggct
C.Bre gcttcctc gtaagtttcttt...542...--aacaagagaagacagttaaACTAtGCGGGGTGttTATGctCTCGAaaatcactttgccttctttt...289...aaaaaatttcag gcctggat
C.Rem gcttcac gttagtttttga...266...aattata-tggtgcc--ttctc-----GGTGttTATGctCTCGGaaatcactttgtcttctctc...415...gactaattgcag ccctggat
**** ** ** ***** ** ***** ** ***** ** * ** ** *

```

id=216582 gene=M01E11.7 name=tag-163 segment=chrI\_5601001\_5601810\_-1 type=I5

Figure 149: CS=5



```

C.Ele  aattgagc aTATCacTGACTGTTGgtgaggtgatttcattagctgaggctttttacactt--ttaacacttt ttcggtga
C.Bri  aattgagc aTATCacTGACTGTTGgtgaggtgactacatt-tctgaggcttttgaatttcattatttggtt tttgttgt
C.Bre  acttgagc aTATCacTGACTGTTGgtgaggtgataacatt-tctgaggcttt--tcgttttatttt---tt ctagtcca
C.Rem  aattgagc aTATCacTGACTGTTGgtgaggtgattaactt-tctgaggc-----atTTTgTtaattcttt ttgagtta
* *****

```

id=111171 gene=W03C9.9 name=W03C9.9 segment=chrII.11960834.11960895.1 type=EN

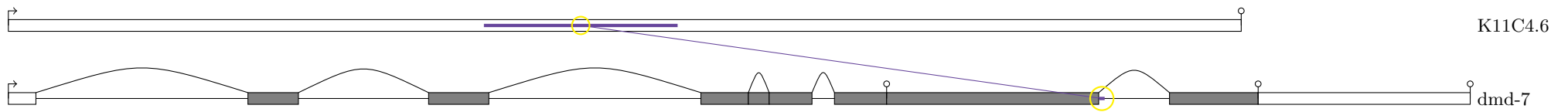
```

C.Ele  gcacaagg tttgttcgtcgt...89...ctgatgcgaatagaaggaaaCAACctAGTTAaGATAgcggcaaatgaggggaaaa...2024...ccaat--ttccagg ttcgccga
C.Bri  gcacaagg tttgttgtttat...83...gcgaagaagagaagaggaaaCAACctAGTTAaGATAgcggcgaaatgaggagaaat...1153...--aattattccagg ttcgccgt
C.Bre  acataagg tttgttgtttgt...46...ctgatgaaaaaagaaggaaaCAACctAGTTAaGATAgcggcaaatgaggagaaga...1365...--aatattccagg tgcgacgt
C.Rem  gcataagg taagtaggcagt...76...gggacgcggagtgagggaaaCAACctAGTTAaGATAgcggcaaatgagaagaggc...1992...--tatatttccagg tgcgccgc
** **** * ** * ** * * ***** ** * ***** * ** **

```

id=65316 gene=F55A8.1 name=egl-18 segment=chrIV.1914931.1917123.1 type=IN

Figure 150: CS=5



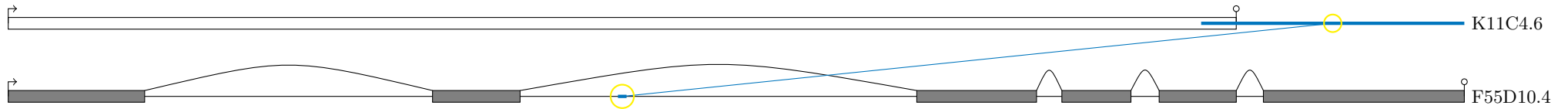
|        |          |                                  |  |          |
|--------|----------|----------------------------------|--|----------|
| C. Ele | cttgctgg | cctcgatgacgattcacctAGCTCACTCAGAC | ata-caactggtgat-aaaaaatttcgtgtcttagagac  | cattttgt |
| C. Bri | cccgctgg | cctcgatgatgattcacctAGCTCACTCAGAC | atgataaactggtgat-aacttctttcccgtcttagagac | ccttttct |
| C. Bre | cccgctgg | cctcgatgatgattcacctAGCTCACTCAGAC | atagaacctggtgat-aacttctttcccgtcttagagac  | cgttttgg |
| C. Jap | cccgctgg | tctcggatgattcacctAGCTCACTCAGAC   | ata-caactggtgataaacctttcccgtcttagagac    | cgttttgc |
| *      | *****    | *** ** *                         | ***** ** * * *                           | *****    |

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

|        |         |         |   |          |
|--------|---------|---------|---|----------|
| C. Ele | gTTGatA | GTGAGTT | -tttgactatgatttttaatg-----...128...--aattattttcag | ctgcctgc |
| C. Bri | gTTGatA | GTGAGTT | -----tgatttttaatgttcattgg...94...--tttgattttcag   | cagcctgc |
| C. Bre | gTTGatA | GTGAGTT | ttctctttctggtctttaat-----...123...tcaat--ttttcag  | ctgcctgt |
| C. Jap | gTTGatA | GTGAGTT | -----tgatttttaatgattaattt...62...ggatt--ttttcag   | tagcctgc |
| *      | *****   | *****   | ** * *****  | * *****  |

id=147002 gene=K08B12.2 name=dmd-7 segment=chrV\_6251337.6251503\_1 type=IN VIEW

Figure 151: CS=5



```

C.Ele  cttgctgg cctcgatgacga...27...tggatgat-aaaaaatttcgtGTCTTAGAGAC caTTTtGt
C.Bri  cccgctgg cctcgatgatga...28...tggatgat-aacttctttccccGTCTTAGAGAC CCTTTtct
C.Bre  cccgctgg cctcgatgatga...28...tggatgat-aacttctttccccGTCTTAGAGAC cgTTTTgg
C.Jap  cccgctgg tctcggatgatga...28...-ggatgataaacctctttccccGTCTTAGAGAc CGTTTTgc
C.Rem  cgcgctgg cctcaatgatga...27...tggatgat-aactttattccgcATCTTAGAGAC caTTTTAt
*  ****  ***  ***  **  *****  **  **  *  *****  *  ****

```

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

```

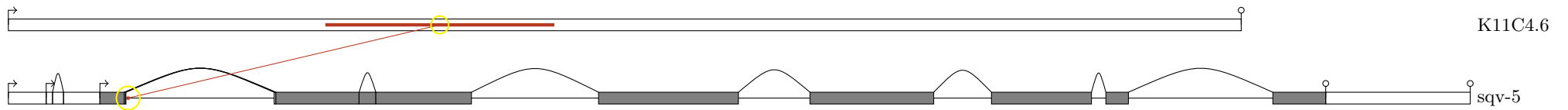
C.Ele  ctatcgag gttagtttattg...127...gtttccatgtatgctgcacATAAAAGaGTCTCTcGAGATtttcattagtgccgctgctc...845...acacatttcag gtctcaat
C.Bri  ctatcgag gttggtttata...134...tttcttctcgca-acgtcacAAAAGGaGTCTCTcGAGATtttcattagtgtcgtctgat...888...tcaaatttacag atcgcaac
C.Bre  ctatcgag gttggtttgca...114...---tccatgtatacgtcacataAAAGAGTCTCTcGAGATtttcattagtgtcgcggtg...793...cattcttttcag atcacaac
C.Jap  ctttcgag gtgggtttctag...73...---tccatgtttacgtcacatgAAAGTGTCTCTcGAGATtttcattagatgcgcgcc...701...ataaactttcag atctcaac
C.Rem  ctgtcgag gtgggttttagg...153...gtttctcatgtgtacgtcacGTAAAGgaGTCTCTcGAGATtttcattagtgtcgtggtg...549...aagaacattcag atctcaac
** ***** **  ****  *  *  *****  **  *  *****  *  *  *  *****  *  *  *  *****  *  *  *

```

id=286310 gene=F55D10.4 name=F55D10.4 segment=chrX\_4717235.4718290\_-1 type=IN

Figure 152: CS=6.25





```

C.Ele cttgctgg cctcgatgacGATTCACCtaGCTCactcagacatacaa-ctggtgataaaaaattt-cgtgtcttagagac cattttgt
C.Bre cccgctgG CCTCGATGATGATTCACCtaGCTCactcagacatagaacctggatgat-aacttctttcccgtcttagagac cgttttgg
C.Jap cccgcTGG TctCGGTGATGATTCACCtaGCTCactcagacatacaa-ctggtgataaacctctttcccgtcttagagac cgttttgc
C.Rem cgcgctgg ccTCAAtGATGATcCACCTaGCTCactcatacatatcc-ctggtgat-aactttattccgcatcttagagac cattttat
* ***** ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

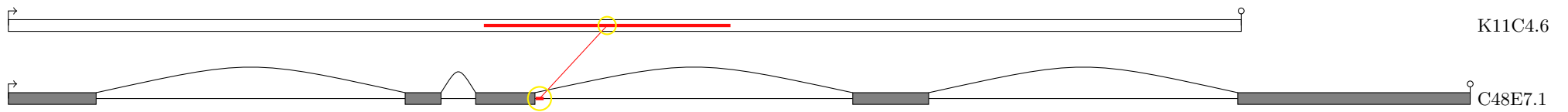
```

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

|       |       |       |                       |          |                           |            |               |          |
|-------|-------|-------|-----------------------|----------|---------------------------|------------|---------------|----------|
| C.Ele | gc    | GAGTG | GTGAGTC               | -----    | atTTTTgataataattctaa----- | ...837...  | -tctattgtcagt | ttcagcgg |
| C.Bre | gc    | GAGTG | GTGAGTCAgTTATttTGGGGT | -----    | gtgattaatcttgaataaaa-...  | 303...     | -attacttctatt | ttcagcga |
| C.Jap | gc    | GAGTG | GTGAGTCATt--TGTCGATTA | agttgatc | gagcgaagtta-----          | ...1713... | -ttaaactgtttt | tgcagaga |
| C.Rem | gc    | GAGTG | GTGaGTCATt--ttTTGG    | -----    | tg--ataaatcaggcaggaaac... | 731...     | aatttcctat-tt | ttcagcga |
| **    | ***** | ***** |                       |          | * * *                     |            | *             | * * * *  |

id=266778 gene=T24D1.1 name=sqv-5 segment=chrI\_9948203.9949077\_1 type=IN

Figure 153: CS=6.32



```

C.Ele cttgctgg cctcgatgacgattcacctAGCTCACTCagACAT-acaactggtgataaaaaatttcgtgtcttagagac cattttgt
C.Bri cccgctgg cctcgatgatgattcacctAGCTCACTCagACATgataactggtgataacttcttcccgcgtcttagagac ccttttct
C.Bre cccgctgg cctcgatgatgattcacctAGCTCACTCagACATagaacctggtgataacttcttcccgcgtcttagagac cgttttgg
C.Rem cgcgctgg cctcaatgatgatccacctAGCTCACTCaTACAT-atccctggtgataactttattccgcacatcttagagac cattttat
* *****

```

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

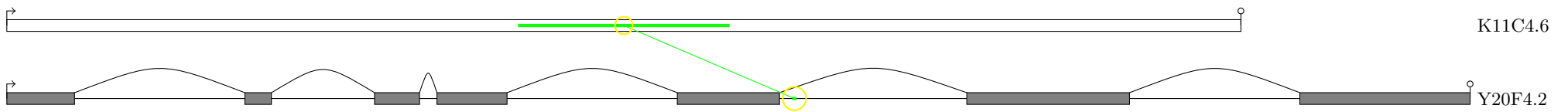
```

C.Ele gATGTgGA GTGAGTT--tatttcaa--gaattatacca...587...tataaatttcag atcagaat
C.Bri gATGTgGA GTGAGTT--tgtagaagattgattgttt...480...tgtatttccag atcagaat
C.Bre gATGTgGA GTGAGTTtttcttacattcataatgaa----...370...ccattttgcag atcagaat
C.Rem gATGTGGA GTGAGTT--ttttgcggttgggatgaagg--...381...cttaattccag atcagaat
*****

```

id=189441 gene=C48E7.1 name=C48E7.1 segment=chrI\_6261512.6262137\_1 type=IN

Figure 154: CS=7.04



```

C.Ele cttgctgg cctcgatgacgattcacCTAGCTCACTCAgACATA--caactggtgataaaaaatttcgtgtcttagagac cattttgt
C.Bri cccgctgg cctcgatgatgattcacctaGCTCACTCAgACATG-ataactggtgataacttctttcccgtcttagagac ccttttct
C.Bre cccgctgg cctcgatgatgattcacctAGCTCACTCAgACATAGa-acctggtgataacttctttcccgtcttagagac cgttttgg
C.Rem cgcgctgg cctcaatgatgatccacCTAGCTCACTCATAcATA--tccctggtgataactttattccgcatcttagagac cattttat
* **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** *

```

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

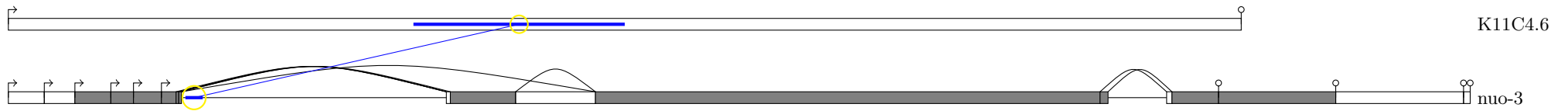
```

C.Ele tgtcaccg ttacaatcacctaatacatatgatgacaccTATGTaTGGGTGAGT--TGG-----ttgcaaagttt-aagtggccc...1597...atactttccagg tatcataa
C.Bri tgtcaccg ttacagtgcggaatcatatgatgacgccTATGTaTGGGTGAGT-----attctggagtttcgaattat--...385...atcatttccaga tatcacia
C.Bre tgtcaccg ttgcaatctcgaatcatatgatgacaccCTATGTaTGGGTGAGT-----ttatataatacgg----caatca---...415...cattttccagc tatcacia
C.Rem tgtcaccg ttacagagtccgaatcatatgatgacgccTATGTaTGGGTGAGTttTAGtagatattgggagg---gaagga---...1064...ttatattccaga tatcacia
**** ** ** ** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** * **** *

```

id=207843 gene=Y20F4.2 name=Y20F4.2 segment=chrI\_2029977.2031652\_1 type=IN

Figure 155: CS=6.72



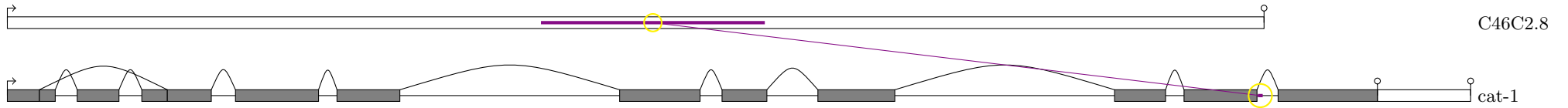
|       |          |                 |                    |  |          |
|-------|----------|-----------------|--------------------|--|----------|
| C.Ele | cttgctgg | cctcgatgacgattc | ACCTaGCTCACTC      | agacat-acaactggtgataaaaaatttcgtgtcttagagac | cattttgt |
| C.Bri | cccgctgg | cctcgatgatgattc | ACCTaGCTCACTC      | agacatgataactggtgataacttcttcccgtcttagagac  | ccttttct |
| C.Bre | cccgctgg | cctcgatgat      | GATTCACCTaGCTCACTC | agacatagaacctggtgataacttcttcccgtcttagagac  | cgttttgg |
| C.Rem | cgcgctgg | cctcaatgatgatcc | ACCTaGCTCACTC      | atacat-atcccgtgataactttattccgcaccttagagac  | cattttat |
|       | *        | *****           | **** * ** *****    | **** * * *****                             | * ****   |

id=144243 gene=K11C4.6 name=K11C4.6 segment=chrV\_6889058.6889127\_1 type=EN

|       |      |                |   |                  |
|-------|------|----------------|---|------------------|
| C.Ele | cgCG | AG TttGAGCAGGT | --tagtagacggaaaaaatga-----...158...-actaaccgtac     | taactttc         |
| C.Bri | cgCG | AG TttGAGCAGGT | ---aggaaatgtcaaaaatttag-----...85...-actaacaatgac   | taatttcc         |
| C.Bre | cgCG | AG TttGAGCAGGT | caGAGTTtaagttaaaa--ttaggaaaa...187...-actaaccgtac   | taactttc         |
| C.Rem | cgCG | AG TttGAGCAGGT | --tag--gaatacaagaattggtg-----...142...tactaa-acatac | taactttc         |
|       | **** | ** *****       | ** * ** * *   | **** ** *** ** * |

id=244473 gene=Y57G11C.12 name=nuo-3 segment=chrIV\_14797154.14797352\_-1 type=IN

Figure 156: CS=5



```

C.Ele ctggttca t-ttccctgtgtatgacgacaacGTGTTaGGGAATCTGcacc-aaccgtgaagatttaac-gaaagtagtactga cacagtat
C.Bri ctggttcg a-ctccctgtgtatgacgataaTATGTTaGGGAATCTGcattcatttgtgatgatttaac-gatagtagtactga cacagcct
C.Bre ctggttcg a-ttccctgtgtatgacgataaTTGTTaGGGAATCTGcact-atccgtgatgatttaac-gatagtagtactga cacagttt
C.Jap -tggttcg agttttctgtgagtgacgacaaTATGTTaGGGAATCTGcaat-ccccgtgaagatttaac-gatagtagtactga cacagttt
C.Rem cgggttcg a-ttccctgtgtatgacgacacgATGTTaGGGAATCTGcatc-aaccgtgaagatttaactgatagtagtactga cacagttt
***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245\_9191317\_-1 type=EN

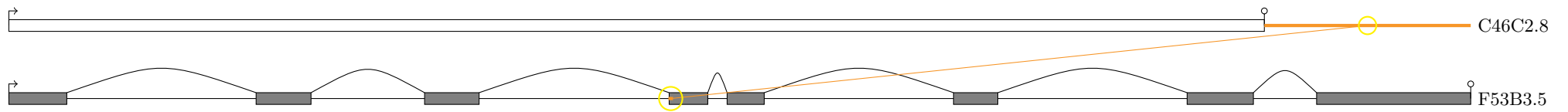
```

C.Ele taGGATTCCCAACGT-aacatacaatgatgaattgacaaca---acactagataat-----aatt ttcaggat
C.Bri tTGGATTCCCAACGTAagcagattaaaagttttaggaaaaa---tatagcaggctat-----t ttcagaat
C.Bre tTGGATTCCCAACGTAaaggagatataaa---acagaactaagtgaagaaaaagtgt-----gt tacagaat
C.Jap tTGGATTCCCAACGTAatctgataaaa---ttaaaaaaaacgttttctggcaaatcaaacctgcct ttcagaat
C.Rem tCGGATTCCCAACGT-aactagaaaaaagaaaagaataaagtgtgcacatgt-----t ttcagaat
* ***** * ***** * ***** * ***** * ***** * ***** *

```

id=115295 gene=W01C8.6 name=cat-1 segment=chrX\_5706122\_5706169\_-1 type=IN

Figure 157: CS=5.4



```

C.Ele ctggttca t-ttccctgtgta...28...ccaaccgtgaagatttaacg-AAAGTAGTACTGA cACAGtat
C.Bre ctggttcg a-ttccctgtgta...30...-atccgtgatgatttaacg-atAGTAGTACTGA cACAGttt
C.Jap -tggttcg agttttctgtgag...30...cc--cgtgaagatttaacg-atAGTAGTACTGA cACAGttt
C.Rem ccggttcg a-ttccctgtgta...31...--accgtgaagatttaactgatAGTAGTACTGA cACAGttt
      ***** ** ***** ***** ***** * ***** * ***** *

```

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245.9191317\_-1 type=EN

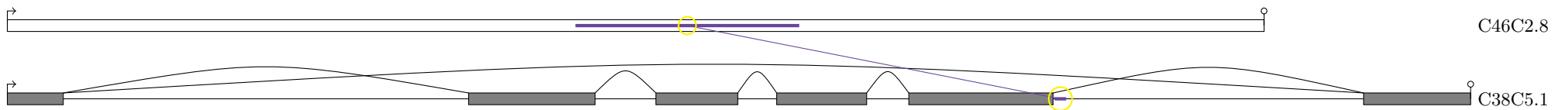
```

C.Ele ttgttggT gagttgttata...709...-acattaatgccattttgatTTGTTcAGgT ATTGTTTt
C.Bre ttgttggT aagatttgcgc...176...gacattaatgcaca-tttgatTTGTTcAGgT ATTGTTTt
C.Jap tgcttggT acgtcttcaacc...121...gacattaatgcaca-tttgatTTGTTcAGgT ATTGTTTt
C.Rem tcattggT aatttcctttca...184...-acattaatacacattttgatTTGTTcAGgT ATTGTTTt
* ***** * ***** ***** * * ***** ***** *

```

id=139637 gene=F53B3.5 name=F53B3.5 segment=chrX\_2876629\_2877379\_-1 type=IN

Figure 158: CS=5.64



```

C.Ele  ctggttca tttccctgtgtatgacgacaacGTGTTAGGgACATCTGCacc-aaccgtgaagatttaac-gaaagtagtactga cacagtat
C.Bri  ctggttcg actccctgtgtatgacgataataTGTTAGGgACATCTGCattcatttgtgatgatttaac-gatagtagtactga cacagcctt
C.Bre  ctggttcg attccctgtgtatgacgataaTTTGTTAGGgACATCTGCact-atccgtgatgatttaac-gatagtagtactga cacagttt
C.Rem  cgggttcg attccctgtgtatgacgacacgATGTTAGGgACATCTGCatc-aaccgtgaagatttaactgatagtagtactga cacagttt
* **** *

```

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245.9191317\_-1 type=EN

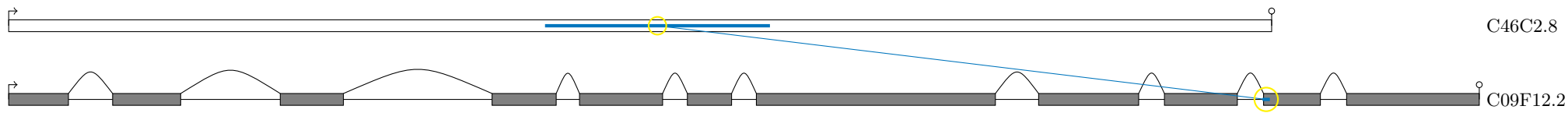
```

C.Ele  cgGTAGtA TGTgCCTGATGC-aaactatcctttatacaaac...339...aactttcaggtat ttcatgac
C.Bri  cgGTAGtA TGTgCCTGATGcagatctgtcctatctataa--...239...attttcaggtt ttcatgac
C.Bre  cgGTAGtA TGTgCCTGATGAaactatcctttctaaca...211...attttcaggtc ttcatgac
C.Rem  cgGTAGtA TGTgCCTGATGT-ggactatcctgtctaggcaa...219...attttcaggtc ttcatgac
***** ***** ** * ** * ** * ***** *****

```

id=207184 gene=C38C5.1 name=C38C5.1 segment=chrX\_5560781.5561163\_1 type=IN

Figure 159: CS=5.8



```

C.Ele ctggttca t-ttcctgtgtatgacgacaacg--TGTaGGGACATCTGcaccaaccgtgaagatttaac-gaaagtagtactga cacagtat
C.Bre ctggttcg a-ttcctgtgtatgacgata--TTTGTAGGGACATCTGcactatccgtgatgatttaac-gatagtagtactga cacagttt
C.Jap -tggttcg agttttctgtgagtacgacaata--TGTAGGGACATCTGcaatcccgtgaagatttaac-gatagtagtactga cacagttt
C.Rem ccggttcg a-ttcctgtgtatgacgacacga--TGTaGGGACATCTGcatcaaccgtgaagatttaactgatagtagtactga cacagttt
***** ** ***** * ***** ** ***** ** ***** ***** *

```

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245\_9191317\_-1 type=EN

```

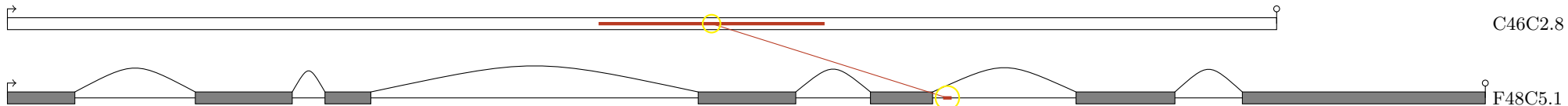
C.Ele -gtaatat--c ctcatacttcataatgacctctctcaaaaataattactttgttTAGGTGtTCCC caGACAaa
C.Bre ggtaattc--c cctcagtt---tgatgacct-catc-gcaacaatgactatattCAGGTGtTCCC TaGACAAa
C.Jap -gtaatatatt tgccaatt---tactgacctccac--gcaacactgagtgcattCAGGTGtTCCC TcGACAaa
C.Rem -gtaatat--c cgt---tt---tgatgacctccatc--ccaacaataaccgtattCAGGTGtTCCC caGACAaa
***** * * ***** * * * * * ** ***** ***** *****

```

id=47373 gene=C09F12.2 name=C09F12.2 segment=chrX\_11056407\_11056460\_1 type=IN

Figure 160: CS=5.8





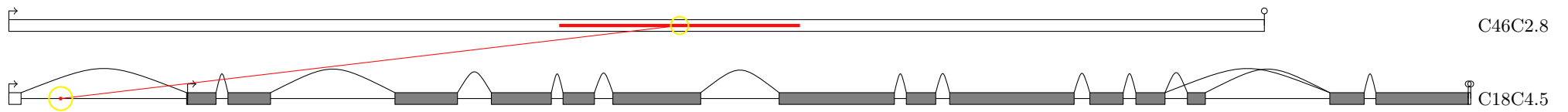
|       |          |                           |                         |                     |                                     |          |
|-------|----------|---------------------------|-------------------------|---------------------|-------------------------------------|----------|
| C.Ele | ctggttca | t-ttccctgtgtatgacgacaacgt | <b>GTTAGGGACA</b>       | <b>tcTGCA</b>       | -ccaaccgtgaagatttaac-gaaagtagtactga | cacagtat |
| C.Bri | ctggttcg | a-ctccctgtgtatgacga       | <b>TAATATGTTAGGGACA</b> | <b>tcTGCA</b>       | ttcatttgtgatgatttaac-gatagtagtactga | cacagcct |
| C.Bre | ctggttcg | a-ttccctgtgtatgacga       | <b>TAATTtGTTAGGGACA</b> | <b>tcTGCA</b>       | -ctatccgtgatgatttaac-gatagtagtactga | cacagttt |
| C.Jap | -tggttcg | agttttctgtgagtgacgacaata  | <b>TGTTAGGGACA</b>      | <b>tcTGCA</b>       | -atccccgtgaagatttaac-gatagtagtactga | cacagttt |
| C.Rem | ccggttcg | a-ttccctgtgtatgacgacacga  | <b>TGTTAGGGACA</b>      | <b>tcTGCA</b>       | -tcaaccgtgaagatttaactgatagtagtactga | cacagttt |
|       | *****    | * ***** ***** *           | *****                   | **** ***** ** ***** | *****                               | ***** *  |

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245.9191317\_-1 type=EN

|       |         |          |                 |                  |   |          |
|-------|---------|----------|-----------------|------------------|---|----------|
| C.Ele | accagtc | gcgcttac | <b>TGTATGTC</b> | <b>ttCTTAAC</b>  | -----tttctaacaataagattt...163...tcaactgttttc              | cttctcca |
| C.Bri | gccagtc | gcgcttac | <b>TGTATGTC</b> | <b>ttCTTAACA</b> | <b>cTATTG</b> agatcttctaataaaggtt...145...acgaattttctt    | cttctaca |
| C.Bre | gccagtc | gcgcttac | <b>TGTATGTC</b> | <b>ttCTTAACA</b> | <b>--ATTA</b> --agtttctaactagcaaggtt...181...caatatttactt | cttctaca |
| C.Jap | gccagtc | gcgcttac | <b>TGTATGTC</b> | <b>ttCTTAACA</b> | -----aatagcttaacttggaagg...163...gtaacaatttct             | ttcttcta |
| C.Rem | accagtc | gcgcttac | <b>TGTATGTC</b> | <b>ttCTTAACA</b> | -----ccttagtttctaactagca-----...153...acaatcttctt         | ttactaca |
|       | *****   | *****    | *****           | *****            | **** **   | * ** *   |

id=48279 gene=F48C5.1 name=F48C5.1 segment=chrX\_11444914.11445132\_-1 type=IN

Figure 161: CS=5



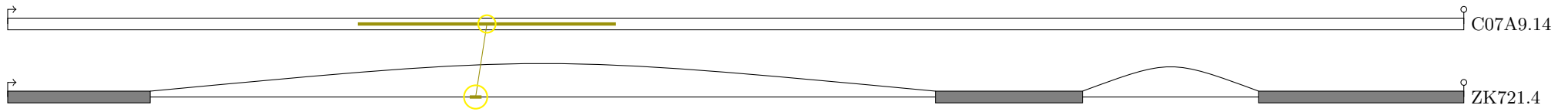
|        |          |                         |        |       |      |      |                                      |           |                                      |          |
|--------|----------|-------------------------|--------|-------|------|------|--------------------------------------|-----------|--------------------------------------|----------|
| C. Ele | ctggttca | tttcctgtgtatgacgacaacgt | GTTA   | agg   | GACA | CTGC | -accaaccgtgaagatttaac-gaaagtagtactga | cacagtat  |                                      |          |
| C. Bri | ctggttcg | actccctgtgtatgacgataaat | GTTA   | agg   | GACA | CTGC | attcatttgtgatgatttaac-gatagtagtactga | cacagcctt |                                      |          |
| C. Bre | ctggttcg | attccctgtgtatgacgataatt | GTTA   | agg   | GACA | CTGC | aCTATC-cgtgatgatttaac-gatagtagtactga | cacagttt  |                                      |          |
| C. Rem | cggttcg  | attccctgtgtatgacg       | ACACGA | t     | GTTA | agg  | GACA                                 | CTGC      | -atcaaccgtgaagatttaactgatagtagtactga | cacagttt |
|        | * ****   | *****                   | *      | ***** |      | **** | *****                                | ** *****  | **** *                               |          |

id=323626 gene=C46C2.8 name=C46C2.8 segment=chrIV\_9191245.9191317\_-1 type=EN

|        |          |  |               |         |  |          |       |
|--------|----------|--|---------------|---------|--|----------|-------|
| C. Ele | acagagcg | gtgagtgttatt...113...--aaa--tccgaatttccggtggg  | GCGGTGTC      | TAAT    | cttcgtgtgagatagtagtt-----...1019...aatgtttccag     | tacaatgt |       |
| C. Bri | acagataa | gtgagttggtta...97...--gaat---cacgaatttccggtag- | GCGGTGTC      | TAAT    | cttcgtgtgagatagtagtt-----...360...ttcttttctag      | ggcaatgt |       |
| C. Bre | acagaaag | gtaagtgtcaag...96...gccaatccatccgaatttcc-      | GGTAGGCGGTGTC | TAAT    | cttcgtgtgagatagtagtt-----...395...ttctatttccag     | agcaatgt |       |
| C. Rem | acagatcg | gtgagtatttag...85...--gaat---tccgaatttccggtag- | GCGGTGTC      | TAAT    | ctTCGGTGTgagatagtagtttgataaga...726...tatctattccag | agcaatgt |       |
|        | *****    | ** ***   | **            | ***** * | *****  | ** **    | ***** |

id=132222 gene=C18C4.5 name=C18C4.5 segment=chrV\_5556008.5557216\_-1 type=I5

Figure 162: CS=5.92



```

C.Ele  tgtgacga ttactattcccAACGCTTGGaaTGAACcaa--agtgattattaaccaatccttttctgagccaatcgaattt-----ttaaaattt----- tggagcac-
C.Bri  tgtgaaga tcactattcccAACGCTTGGaaTGAA--aattactgattataatccaatccttttctgagcc-----aattataaaaatt--tgaaattt----- tggttgaa-
C.Bre  tgtgatga atacttttcccAACGCTTGGaaTGAACAaa--agtgattact-tccaatccttttctgagcca---aatttttgaatccaacaatgatttagtcagttagtgatg tagagaaac
C.Rem  tgtgaaga ttactattcccAACGCTTGGaaTGAACAaa--agtgattatt-accaatccttttctgagcca---aatttcaggaagaactaaaattt----- tgatgaaa-
**** **  *** ***** ** * ***** ***** **** **

```

id=296028 gene=C07A9.14 name=C07A9.14 segment=chrIII.9717296..9717374.1 type=EN

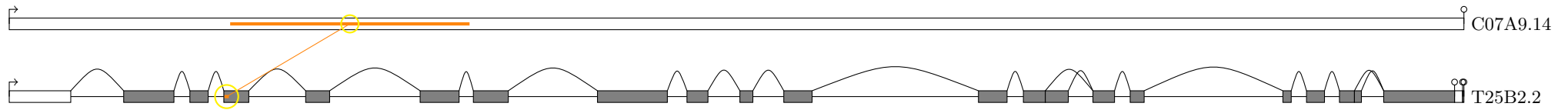
```

C.Ele  ggtaatt-a ttaagttgttgt-...311...-agaaccattcaacaaattgtGTTTACCCAAGCGTTCctattcaaaacgattatgc...1565...tacagtttcata ctaatgct
C.Bri  ggtatgt-g gaggagggtcat-...304...-gaaccattcaccaaattgtGTTTACCCAAGCGTTCcaattcaaaacaattatgt...126...tacagtttcatt ctgatgct
C.Bre  ggtacgtca tcagtagatca-...318...aagaaccattcaccaaattgtGTTTACCCAAGCGTTCcaattcaaaacgattatgt...233...tacagtttcatt ctcatggt
C.Rem  ggtaggc-g tc-caagataatg...303...aagaaccattcaacaaatgGTTTACCCAAGCGTTCcaattcaaaacgattatgt...107...tacagtttcatt ctgatggt
**** * ***** ** **** ***** ***** ***** ***** ***** ** ** *

```

id=91211 gene=ZK721.4 name=ZK721.4 segment=chrX.8778952..8780906.1 type=IN

Figure 163: CS=5.64



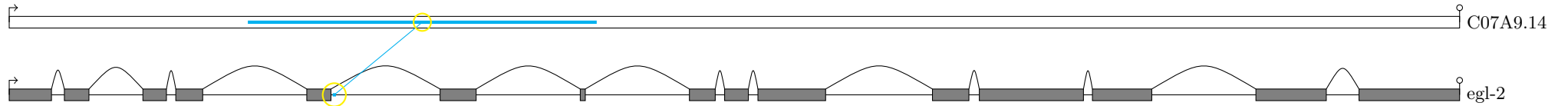
|       |          |      |         |       |       |         |         |          |         |        |          |          |        |         |          |          |          |         |
|-------|----------|------|---------|-------|-------|---------|---------|----------|---------|--------|----------|----------|--------|---------|----------|----------|----------|---------|
| C.Ele | tgtgacga | ttac | TATCCCA | ac    | GCTTg | GAATGAA | ccaaagt | gattatta | accaatc | cctttt | ctgagcca | atc---   | gaattt | -----   | ttaaaatt | tggagcac |          |         |
| C.Bri | tgtgaaga | tcac | TATCCCA | ac    | GCTT  | GGAATG  | aaaatt  | actgatt  | tataat  | ccaatc | cctttt   | ctgagcca | attata | aaaaatt | -----    | tgaaatt  | tggttgaa |         |
| C.Jap | tgtgaaga | acaa | TATCCCA | ac    | GCTTg | GAAT    | gaacaaa | agtgatt  | tatt-t  | ccaatc | ccttat   | ctgagccc | -----  | aaattt  | -----    | tt---    | taaagaa  |         |
| C.Rem | tgtgaaga | ttac | TATCCCA | ac    | GCTT  | GGAATG  | aacaaa  | agtgatt  | tatt-   | accaat | cctttt   | ctgagcca | -----  | aattt   | cagga    | agaact   | aaaatt   | tgatgaa |
|       | **** *   |      | *       | ***** |       | *       | *****   |          | *****   |        | *****    |          | ****   |         | *        | ***      | *        |         |

id=296028 gene=C07A9.14 name=C07A9.14 segment=chrIII.9717296.9717374.1 type=EN

|       |           |        |       |        |        |         |        |          |        |        |         |        |         |      |         |      |      |
|-------|-----------|--------|-------|--------|--------|---------|--------|----------|--------|--------|---------|--------|---------|------|---------|------|------|
| C.Ele | a-ctgtgag | ttag   | ----- | ttgaat | gaataa | caaaaat | -----  | taaattaa | ---    | TTGTTT | aGAGCTG | GGac   | AATg    |      |         |      |      |
| C.Bri | a-cagtaag | tttatt | ttat  | catctt | ggtt   | gaattg  | ataa   | -----    | catagt | taca   | ---     | TGTTCC | aGAGCTG | GGat | AATg    |      |      |
| C.Jap | atctacagt | ttg    | ----- | ttaat  | tataa  | aaaaata | aaaaat | gt       | aaactt | taattg | caca    | attt   | ---     | ATT  | aGAGCTG | GGat | AATg |
| C.Rem | a-ctgtaag | ttg    | ----- | tc---  | tgaa   | cctg    | atgt   | -----    | caga   | attata | aaa     | TATTC  | aGAGCTG | GGat | AATg    |      |      |
|       | **        |        | **    |        | *      |         | *      |          | *      | *      | *       | *      | *       | *    | *****   | ***  | **** |

id=80961 gene=T25B2.2 name=T25B2.2 segment=chrX.6169868.6169914.1 type=IN

Figure 164: CS=5.36



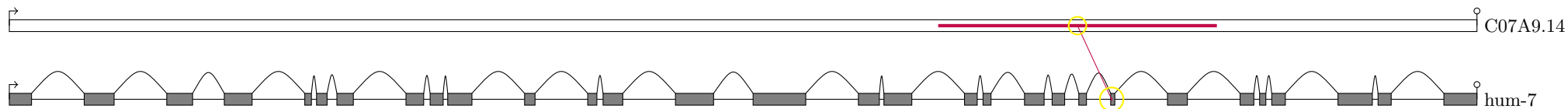
|        |          |       |      |        |       |        |     |       |      |       |       |       |      |       |     |       |       |       |       |       |     |       |       |       |      |        |      |         |
|--------|----------|-------|------|--------|-------|--------|-----|-------|------|-------|-------|-------|------|-------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-------|------|--------|------|---------|
| C. Ele | tgtgacga | ttact | ATTC | CAAC   | gCTTG | gaATGA | acc | aaagt | gatt | atta  | acca  | atc   | cttt | ctg   | agc | caat  | cg--- | aatt  | ----- | tt    | aa  | aatt  | ----- | tgg   | gac- |        |      |         |
| C. Bri | tgtgaaga | tcact | ATTC | CAAC   | gCTTG | gaATGA | aaa | tact  | gatt | ata   | tcca  | atc   | cttt | ctg   | agc | caat  | tata  | aaaa  | att   | ----- | tg  | aa    | att   | ----- | tg   | gtgaa- |      |         |
| C. Bre | tgtgatga | atac  | TTT  | ccCAAC | gCTTG | gaATGA | aca | aaagt | gatt | act-  | tcca  | atc   | cttt | ctg   | agc | ca-   | ----- | aatt  | ttt   | g     | aat | cca   | aat   | gatt  | tag  | tcag   | ttag | tgatg   |
| C. Jap | tgtgaaga | acaat | ATTC | CAAC   | gCTTG | gaATGA | aca | aaagt | gatt | att-  | tcca  | atc   | ctt  | ctg   | agc | cca-  | ----- | aatt  | ttt   | ----- | tt  | ----- | ----- | ----- | taa  | agaaa- |      |         |
| C. Rem | tgtgaaga | ttact | ATTC | CAAC   | gCTTG | gaATGA | aca | aaagt | gatt | att-  | acca  | atc   | cttt | ctg   | agc | cca-  | ----- | aatt  | cag   | ga    | aa  | aa    | act   | taa   | aatt | -----  | tg   | atgaaa- |
|        | **** *   |       | *    | *      | ***** |        | *   | ***** |      | ***** | ***** | ***** |      | ***** |     | ***** |       | ***** |       | ***   |     | ***   |       | *     |      | *      |      |         |

id=296028 gene=C07A9.14 name=C07A9.14 segment=chrIII.9717296.9717374.1 type=EN

|        |          |              |       |       |       |       |       |       |               |       |       |       |       |       |       |       |
|--------|----------|--------------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|-------|-------|-------|-------|-------|
| C. Ele | caatcagg | TTATCAAGGTTG | aGAGT | cttg  | acg   | ctt   | ctt   | ctg   | ttg...2063... | caa   | act   | ttt   | tagg  | ttat  | gac   |       |
| C. Bri | caatcagg | TTATCAAGGTTG | aGAGT | cttg  | acg   | ctt   | ctt   | ctg   | ttg...1559... | att   | att   | tac   | agg   | taat  | gaat  |       |
| C. Bre | caatcagg | TTATCAAGGTTG | aGAGT | cttg  | acg   | ctt   | ctt   | ctg   | tt-...2735... | cct   | aatt  | cc    | agg   | taat  | gaat  |       |
| C. Jap | caatcagg | TTATCAAGGTTG | aGAGT | cttg  | acg   | ctt   | ctt   | ctg   | ttg...1286... | tc    | ctg   | tt    | cc    | agg   | tgat  | gac   |
| C. Rem | caatcagg | TTATCAAGGTTG | aGAGT | cttg  | acg   | ctt   | ctt   | ctg   | ttg...2038... | cat   | gtt   | tt    | cc    | agg   | taat  | gaat  |
|        | *****    | *****        | ***** | ***** | ***** | ***** | ***** | ***** | *****         | ***** | ***** | ***** | ***** | ***** | ***** | ***** |

id=104739 gene=F16B3.1 name=egl-2 segment=chrV.1295417.1297528.-1 type=IN

Figure 165: CS=5



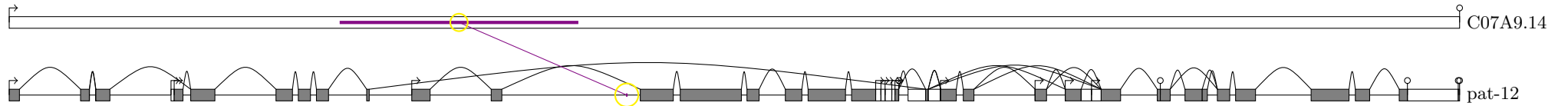
|       |          |   |                       |                                 |                           |
|-------|----------|---|-----------------------|---------------------------------|---------------------------|
| C.Ele | tgtgacga | ttactattccaacgcttggaatgaaccaaagtgattattaa | CCAATcCTTTTCTGAGCCAAT | cgaatttt-----taaaattt           | tgg-----agcac-----        |
| C.Bri | tgtgaaga | tcactattccaacgcttggaatgaaaattactgattataat | CCAATcCTTTTCTGAG      | -----ccaattat-----aaaaattt      | tga-----aatTTTggtgaa      |
| C.Bre | tgtgatga | atacttttccaacgcttggaatgaacaaaagtgattactt  | CCAATcCTTTTCTGAG      | -----ccaaattttgaaatccaacaatgatt | tagtcagttagtgatgtagagaaac |
| C.Rem | tgtgaaga | ttactattccaacgcttggaatgaacaaaagtgattatta  | CCAATcCTTTTCTGAG      | -----ccaaattt-----caggaagaaac   | taa-----aatTTTgatgaaa     |
|       | **** **  | *** *****                                 | *****                 | * ** * *                        | ** *                      |

id=296028 gene=C07A9.14 name=C07A9.14 segment=chrIII.9717296.9717374.1 type=EN

|       |          |  |        |        |            |
|-------|----------|--|--------|--------|------------|
| C.Ele | tgataaag | gtaagtcgattt...186...-----ccgagaaaattgtgtaaaat | ATTGGT | aTTCAG | AAAGTTGg   |
| C.Bri | tgatcaag | gtacttatacaa...59...gattcaactccaaa-----aaaatc  |        | TTCAG  | AAAGTTGg   |
| C.Bre | tgataaaa | gtgagaaacttc...57...-----aaatacaaaaaatgaaaaaa  |        | TTCAG  | AAAGTTGg   |
| C.Rem | tgataaag | gtgagaaatcgc...225...gttttttcaacaac-----aaaaac |        | TTCAG  | AAAGTTGg   |
|       | **** **  | **   | **     | ***    | **** ***** |

id=75885 gene=F56A6.2 name=hum-7 segment=chrI.591308.591537.-1 type=IN

Figure 166: CS=6.84



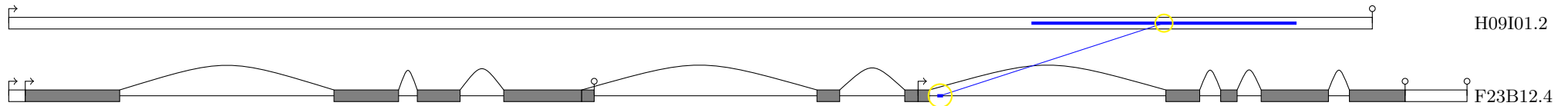
|        |          |            |        |          |  |  |               |           |           |
|--------|----------|------------|--------|----------|--|--|---------------|-----------|-----------|
| C. Ele | tgtgacga | ttactattcc | CAACgc | TTGGAATG | gaaccaaagtgattattaaccaatccttttctgagccaatc          | ---gaattt                                    | -----ttaaattt | -----     | tggagcac- |
| C. Bri | tgtgaaga | tcactattcc | CAACgc | TTGGAATG | aaaattactgattataatccaatccttttctgagccaattataaaaattt | -----tgaattt                                 | -----         | tggttgaa- |           |
| C. Bre | tgtgaTGA | AtACTTTTcc | CAACgc | TTGGAATG | gaacaaaagtgattact-tccaatccttttctgagcca             | -----aatttttgaatccaacaatgatttagtcagttagtgatg | -----         | tagagaaac |           |
| C. Jap | tgtgaaga | acaatattcc | CAACgc | TTGGAATG | gaacaaaagtgattatt-tccaatccttatctgagccca            | -----aattttt                                 | -----ttt      | taaagaaa- |           |
| C. Rem | tgtgaaga | ttactattcc | CAACgc | TTGGAATG | gaacaaaagtgattatt-accaatccttttctgagcca             | -----aatttcaggaagaactaaaattt                 | -----         | tgatgaaa- |           |
|        | **** *   | * *        | *****  |          | * *****  | *****  | *****         | ****      | ***       |

id=296028 gene=C07A9.14 name=C07A9.14 segment=chrIII.9717296.9717374.1 type=EN

|        |          |              |            |                      |            |      |         |                      |              |              |              |              |          |
|--------|----------|--------------|------------|----------------------|------------|------|---------|----------------------|--------------|--------------|--------------|--------------|----------|
| C. Ele | aagtattc | ggtatgtttag  | ...1809... | cctactatcagtttgccata | CATCCAGaa  | GTTG | -----   | aagaggtctagaattgtgtt | -----        | ...79...     | gaataattttca | ggaacgtc     |          |
| C. Bri | aagtattc | ggtaagaaaatg | ...2430... | tcaactatcagtttgccata | CATCCAGaa  | GTTG | -----   | aagaggtt             | -----        | tttagggaaaaa | ...35...     | agttgtttttca | ggaacgcc |
| C. Bre | aagtattc | cgtaagttgact | ...1240... | ccaacaatcagtttgccata | CATCCAGaa  | GTTG | AGAGGTt | TTCA                 | ataggctaat   | ---tttgaaaaa | ---...33...  | atctttttttca | ggaacgtc |
| C. Jap | aagtattc | ggttagtgccct | ...1245... | gccaccaccagccttcctca | CATCCAGaa  | GTTG | -----   | aagaggttaca          | ---tttggggca | ---...40...  | acaactttttca | ggaacgcc     |          |
| C. Rem | aagtattc | ggttagttttg  | ...2708... | ccaactatcagtttgccata | CATCCAGaa  | GTTG | -----   | aagaggttaaaagggttggg | -----        | ...75...     | tcattattttca | ggaacgtc     |          |
|        | **** *   | ** *         |            | * ** * **            | * ** ***** |      |         | ** **                | *            |              | *****        | ***** *      |          |

id=67385 gene=T17H7.4 name=pat-12 segment=chrIII.735623.737588.-1 type=IN VIEW

Figure 167: CS=5



```

C.Ele  tgactgcg  gtgacgatcaactcttacctactatgacaaaaacaatggttagacgTTACTCGTACTGTCTGagcagttttg  tttttttt
C.Bri  tgactgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgTTACTCGTACTGTCTGagcagttttg  ctgttttg
C.Bre  ccgctgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgTTACTCGTACTGTCTGagcagttttg  ctattttg
C.Jap  acgctgcg  ttgacgat-ttatcttacctacaagacaaaatacaatggttagacgTTACTCGTACTGTCTGagcagttttg  tcattttg
C.Rem  ccgctgct  gtgacgat-aaaccttacctactatgacaaaaacaatggttagacgTTACTCGTACTGTCTGagcagttttg  ctattttg
      ****  *****  ***** * ***** *****

```

id=47843 gene=H09I01.2 name=H09I01.2 segment=chrIV.8253080\_8253151.1 type=EN

```

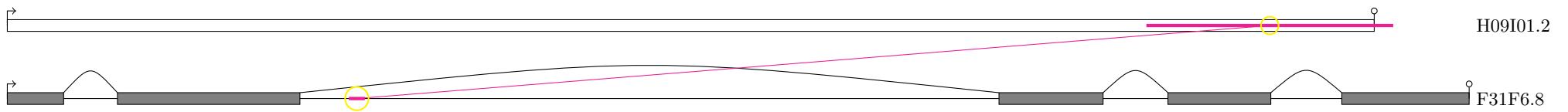
C.Ele  ggtatgga  aatcatgcaTAGACGTATGtGTAA-gatgtagacaga--ttagatt---...1227...ttcagatggcct  ccaacgtg
C.Bri  ggtatgga  aatcatgcaTAGACGTATGtGTAAgaatgtag---ga--ttagaggat-...448...ttcagatggcct  ccaacgtg
C.Bre  ggtatgga  aatcatgcaTAGACGTATGtGTAA-gaagtagaaagagtgttaga-----...267...ttcagatggcct  ccaacgtg
C.Jap  ggtatgga  aatcatgcaTAGACGTA--TGTA-----aaaaggagtgtgcctagtg...1411...ttcagacggcct  caatcgcg
C.Rem  ggtatgga  aatcatgcaTAGACGTATGtGTAA-gatgtagtgaga--ttagtca---...149...ttcagatggcct  ccaacgtg
      ***** ***** ***** * ** *  ***** ***** * * * *

```

id=36241 gene=F23B12.4 name=F23B12.4 segment=chrV.14443367\_14444649.1 type=IN

Figure 168: CS=6.3





```

C.Ele  tgactgcg  gtgacgatcaactcttacctactatgacaaaaacaatggttagacgttactcGTACTGTCtgAGCAGttttg  ttttttt
C.Bri  tgactgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcGTACTGTCtgAGCAGttttg  ctgttttg
C.Bre  ccgctgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcGTACTGTCtgAGCAGttttg  ctattttg
C.Rem  ccgctgct  gtgacgat-aaaccttacctactatgacaaaaacaatggttagacgttactcGTACTGTCtgAGCAGttttg  ctattttg
      ****  ***** **  ***** * ****

```

id=47843 gene=H09I01.2 name=H09I01.2 segment=chrIV.8253080-8253151.1 type=EN

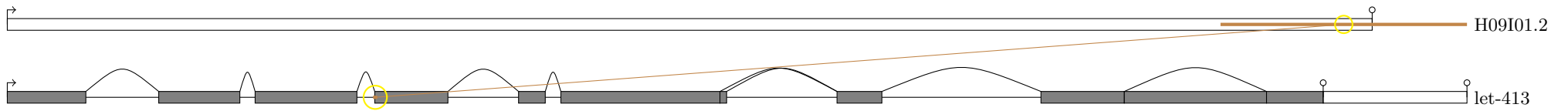
```

C.Ele  -----gagaggtg  tttgtagagaattgac--cacgagttggttctt-TTGTGACAatGTGCatt---gggtgtttggtttcgga...1854...aggttgatcaag  ctcttcgt
C.Bri  -----gataagta  tttgtggagaagtgac--cacggggt-actct--TTGTGACAgtGTGCactgtggggtgtttggttc---...1322...aggttgatcaag  cacttcgg
C.Bre  atgggtttttagata  tttgaagag--ttgac--cacgagttgactcttTTGTGACAatGTGCatt---gggtgtttggtttcgga...542...aggttgaccaag  ctctccga
C.Rem  -----tgaaggta  tttgtagag--ttgaccacacgagttgactcgttTTGTGACAatGTGCact---gggtgtttggtttcgga...97...aggttagaccaag  cccttcga
      * *  **** **  **** ** * *  **** *  **** *  **** *  **** *  **** *  **** *  **** *  **** *  **** *

```

id=52294 gene=F31F6.8 name=F31F6.8 segment=chrX.14876335-14878266.1 type=IN

Figure 169: CS=6.12



```

C.Bri  tgactgctgtgacgataatccttacctactatgacaaaaacaatggttagacgttactcgtacTGTCTGAGCagTTTTGCTgTTTTg
C.Bre  ccgctgctgtgacgataatccttacctactatgacaaaaacaatggttagacgttactcGTACTGTCTGAGCAGTTTTgctattttg
C.Jap  acgctgcgttgacgattatccttacctacaagacaaataacaatggttagacgttactcGTACTGTCTGAGCAGTTTTgtcattttg
C.Rem  ccgctgctgtgacgataaaccttacctactatgacaaaaacaatggttagacgttactcGTACTGTCTGAGCagTTTTgTATTTg
      ***  *      *      *      *      *      *      *      *      *      *      *      *      *      *      *

```

id=47843 gene=H09I01.2 name=H09I01.2 segment=chrIV.8253080-8253151.1 type=EN

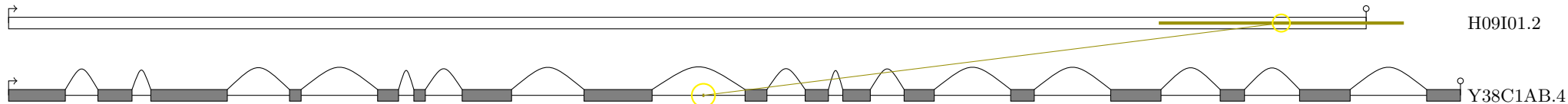
```

C.Bri  tcagttgggtgagt----tttga-aatctacagatcagaatcattg--GAAAAGTGAAAAAGCTTAcAGACGtttcc
C.Bre  tcagctgggtgagt----ttctag----tgaattagagattactgaaaacta---AAAAAGCTTTCAGACGTGTca
C.Jap  tcagttgggtgagtaacaagttgaacaattt-----tcgctttgacgtatcaAAAAAGCTTTCAGACGTGTcg
C.Rem  tcaattgggtgagt----ttttgagaatct--agaacaggatcgtttga--AGAATAAAAAaGCTTAcAGACGTGTca
      ***  *      *      *      *      *      *      *      *      *      *      *      *      *

```

id=11114 gene=F26D11.11 name=let-413 segment=chrV.7976600-7976655.-1 type=IN

Figure 170: CS=5.84



```

C.Ele  tgactgcg  gtgacgatcaactcttacctactatgacaaaaacaatggttagacgttactcgTACTGTCTgaGCAGTTTG  Tttttttt
C.Bri  tgactgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcgTACTGTCTgaGCAGTTTG  cTGTTTtg
C.Bre  ccgctgct  gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcgTACTGTCTgaGCAGTTTG  cTATTTtg
C.Jap  acgctgcg  ttgacgat-ttatcttacctacaagacaaaatacaatggttagacgttactcgTACTGTCTgaGCAGTTTG  TcATTTtg
C.Rem  ccgctgct  gtgacgat-aaaccttacctactatgacaaaaacaatggttagacgttactcgTACTGTCTgaGCAGTTTG  cTATTTtg
      ****  *****  ***** * *****  *****

```

id=47843 gene=H09I01.2 name=H09I01.2 segment=chrIV.8253080-8253151.1 type=EN

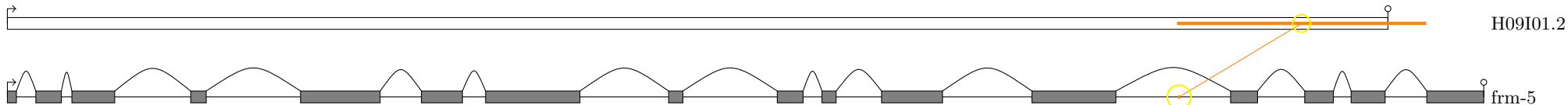
```

C.Ele  agcagcag  gtagacagaaat...282...-----atcacatcccaataagtatATGAGtATTGCgAGACaGGTA-----aaaactcatccctttgttg...241...aaaatcttcag  ggaggagc
C.Bri  agcaacag  gttggtttcagc...63...agaatcatcacattccgaatAAATAtaTGAGcATTGCgAGACaGGTAacctctaaccaggacgagtt-----...121...gctatcttcag  ggtggagc
C.Bre  aacaacag  gtatgttttgat...78...agaatcatcatattccaatAAGTataTGAGcATTGCaAGACaGGTA-----acagaaaacaagttttccct-----...108...ctgaatttcag  ggaggagc
C.Jap  agcaacag  gttagtctgtaa...127...agaacctcatcattccgaatAAGTataTGAGcATTGCgAGACaGGTA-----aaaaaaaaacaacaacttga---...174...acaattttacag  ggaggaac
C.Rem  aacagcag  gttggtatcttt...83...agaatcatcatattccaatAAATAtaTGAGcATTGCgAGACaGGTA-----acag--aacgagatttcccttt-----...100...agtattttgcag  ggaggagc
* ** ** *  **** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *

```

id=121776 gene=Y38C1AB.4 name=Y38C1AB.4 segment=chrIV.6704-7311.1 type=IN VIEW

Figure 171: CS=5.4



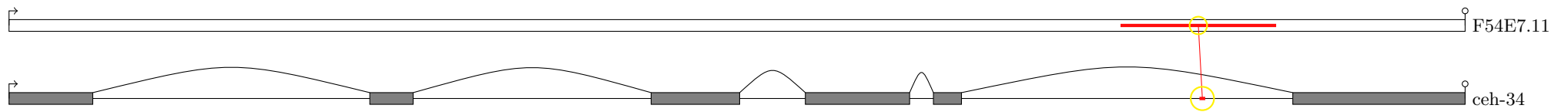
|        |          |   |                    |          |
|--------|----------|---|--------------------|----------|
| C. Ele | tgactgcg | gtgacgatcaactcttacctactatgacaaaaacaatggttagacgttactcg | TACTGTCTgaGCAGTTTG | Tttttttt |
| C. Bri | tgactgct | gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcg | TACTGTCTgaGCAGTTTG | cTGTTTtg |
| C. Bre | ccgctgct | gtgacgat-aatccttacctactatgacaaaaacaatggttagacgttactcg | TACTGTCTgaGCAGTTTG | cTATTTtg |
| C. Jap | acgctgcg | ttgacgat-ttatcttacctacaagacaaaatacaatggttagacgttactcg | TACTGTCTgaGCAGTTTG | TcATTTtg |
| C. Rem | ccgctgct | gtgacgat-aaaccttacctactatgacaaaaacaatggttagacgttactcg | TACTGTCTgaGCAGTTTG | cTATTTtg |
|        | ****     | *****   | ***** * *****      | ****     |

id=47843 gene=H09I01.2 name=H09I01.2 segment=chrIV.8253080-8253151.1 type=EN

|        |           |   |                             |   |                     |
|--------|-----------|---|-----------------------------|---|---------------------|
| C. Ele | agcagcag  | gtagacagaaat...282...-----atcacatcccaataagtat | ATGAGtATTGCgAGACaGGTA-----  | aaaactcatccctttgttg...241...aaaatcttcag | ggaggagc            |
| C. Bri | agcaacag  | gttggtttcagc...63...agaatcatcacattccgaat      | AAATAtaTGAGcATTGCgAGACaGGTA | acctctaaccaggacgagtt-----               | ..121...gctatcttcag |
| C. Bre | aacaacag  | gtatgttttgat...78...agaatcatcatattccaat       | AAGTataTGAGcATTGCaAGACaGGTA | -----acagaaaacaagttttccct-----          | ..108...ctgaatttcag |
| C. Jap | agcaacag  | gttagtcgtaaa...127...agaacctcacattccgaat      | AAGTataTGAGcATTGCgAGACaGGTA | -----aaaaaaaaacaacttga---               | ..174...acaatttcag  |
| C. Rem | aacagcag  | gttggtatcttt...83...agaatcatcatattccaat       | AAATAtaTGAGcATTGCgAGACaGGTA | -----acag--aacgagatttccttt-----         | ..100...agtatttcag  |
|        | * ** ** * | **** * ** * ***** ***** *****                 |                             | * *                                     | * ** ** *           |

id=45991 gene=Y38C1AB.8 name=frm-5 segment=chrIV.40568-41175.-1 type=IN VIEW

Figure 172: CS=5.4



```

C.Ele  ttagttc cacttattttc...49...gttggtactctgccacacgtGTACTGGTA+ATGCTGTATgTGTTCCaaagattttacaacaa-ttttca ggcgtgag
C.Bri  attagttc cacttggtatct...60...-----gccacacgtgtactggctttATGCTGTATgaGTTCCaaagatc-tacgaacaa-ttttca ggcgtgag
C.Bre  aatattc cattgattaact...61...-----gccacacgtgtactggcttcATGCTGTATgaGTTCCatagatt-tacgaacaatttttca ggcgtgag
C.Rem  ataggccc cacttatttctt...62...-----gccacacgtgtactggctttATGCTGTATgaGTTCCaaagatt-tacgaacatttttca ggcgtgag
* * * * *
***** * ***** * ***** * ***** * ***** * ***** * *****

```

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830\_1 type=EN

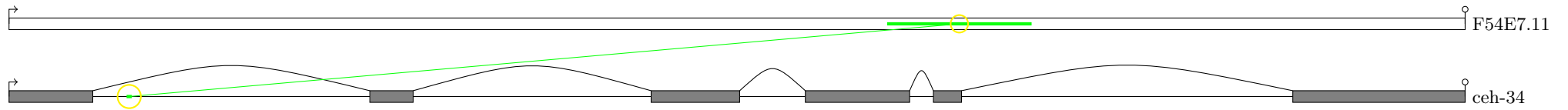
```

C.Ele  ctcgatag gtgagtatggtc...795...---acacgatcctgtcgggctcGAACAATACGCATTGTTcGTGTtggtt--ggcggagatcctcttc-----...150...tctatgtttcag aagctccg
C.Bri  ttggatag gtgagtatggtc...324...---cgtcacttcggctgctaccGAACAATACGCAT-----tgttcgtgtagtgccgccc-----...371...agtaatttcag aagctctg
C.Bre  ctggatag gtaagcatggtt...417...ttgacacgat--tgtcggctccGAACAATACGCAT-----tggt-----ccttctcgaagaaga...121...ccctttttcag agactctg
C.Rem  ctcgacgg gtgagtatggtc...348...---acacgatcgcgtcgggtacaGAACAATACGCAT-----tgttccggtgg-gatcctgt-----...140...aatttattcag aagctccg
* * * * *
** ** *
* * * *
*****
****
*
** ** *
* * * *

```

id=57825 gene=C10G8.6 name=ceH-34 segment=chrV\_5315859.5316889\_-1 type=IN

Figure 173: CS=6



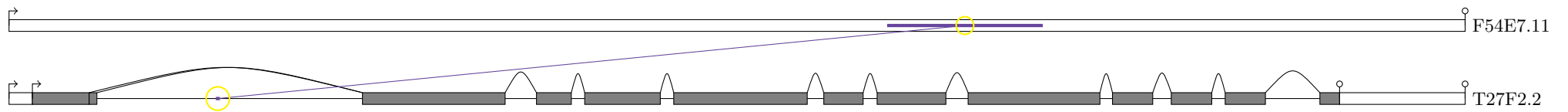
|       |          |   |        |                  |   |          |
|-------|----------|---|--------|------------------|---|----------|
| C.Ele | tttagttc | cacttatttttc...39...tggtagataaagttgttactc | TGCCac | ACGTGTACTGGTATCA | tgctgtatgtgttccaagattttacaaaca-attttca          | ggcgtgag |
| C.Bri | attagttc | cacttgttatct...39...tggtataatgattgttcctc  | TGCCac | ACGTGTACT        | tggtcttcatgctgtatgagttccaaga-tctacgaaca-attttca | ggcgtgag |
| C.Bre | aaatattc | cattgattaact...40...tggtagataagacgttcctc  | TGCCac | ACGTGTACT        | tggtcttcatgctgtatgagttccaaga-tttacgaacaattttca  | ggcgtgag |
| C.Rem | ataggccc | cacttatttctt...41...tggtagatgagtcgtccctc  | TGCCac | ACGTGTACT        | tggtcttcatgctgtatgagttccaaga-tttacgaacaattttca  | ggcgtgag |
|       |          | * * * *                                   | *****  | *                | *****   | *****    |

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830\_1 type=EN

|       |          |  |              |   |  |          |
|-------|----------|--|--------------|---|--|----------|
| C.Ele | agtctgac | gtaagttgagat-----ccttgaagca-----acaactcgg-----gaaagctcgggttacgatcttctt             | TGGTa        | ATTGTATACGTGGCA                           | acgcgacaccgatggggcgg...498...ttgaatttcag | agcaacca |
| C.Bri | agcttgac | gtaagttgagacttcgtgtgtctggaggcaggagacacaactcgg-----gatctcgggttacgatcttcttggtaatt    | GTATACGTGGCA | acgcgacaccgatggggcgg...202...aaatatttcag  |  | agctacca |
| C.Bre | agcttgac | gtaagttgagacatcgggtgtctggagcca-----acaactagggggcgaagagatctcgggttacgatcttcttggtaatt | GTATACGTGGCA | acgcgacaccgatgtgggtc...316...tcacatttcag  |  | agctacta |
| C.Rem | agcttgac | gtaagttgagacttcgtgagtgagga-----acaactcgg-----gaagagatctcgggttacgatcttcttggtaatt    | GTATACGTGGCA | acgcgacaccgatggggcgg...350...cagcacttacag |  | agcaacta |
|       | ** **    | *****  | ** **        | *****                                     | * *****                                  | ** **    |

id=57817 gene=C10G8.6 name=ceH-34 segment=chrV\_5318781.5319385\_-1 type=IN

Figure 174: CS=5.52



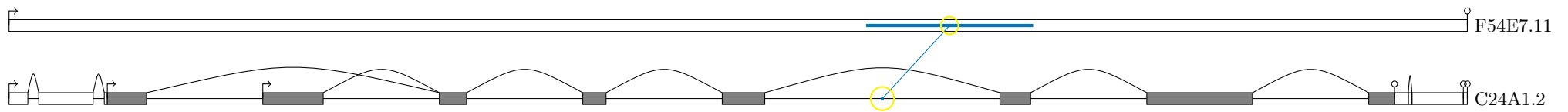
|       |          |  |                 |   |          |
|-------|----------|--|-----------------|---|----------|
| C.Ele | tttagttc | cacttatttttc...39...tggtagataagttgttactc | TGCCACACGTgTACT | ggatcatgctgtatgtgttccaagattttacaaca-attttca       | ggcgtgag |
| C.Bri | attagttc | cacttgttatct...39...tggtataatgattgttcctc | TGCCACACGTgTACT | ggctttatgctgtatgagttccaaga-tctacgaaca-attttca     | ggcgtgag |
| C.Bre | aaatattc | cattgattaact...40...tggtagataagacgttcctc | TGCCACACGTgTACT | ggcttcctgctgtatgagttccataga-tttacgaacaattttca     | ggcgtgag |
| C.Rem | ataggccc | cacttatttctt...41...tggtagatgagtcgtccctc | TGCCACACGTgTACT | ggctttatgctgtatgagttccaaga-tttacgaacattttttca     | ggcgtgag |
|       |          | * ** * **                                | ***** *         | ** ***** ***** * ***** ***** ** * ** * ** * ***** | *****    |

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830.1 type=EN

|       |          |   |                               |  |          |
|-------|----------|---|-------------------------------|--|----------|
| C.Ele | tcgtcatt | gcaggttttgtt...377...attagcagtcggtaaccgta | GGTAACGTGTaGGCGt              | --tgtatacatgtcgaaaact...1155...cmetaaatgttt  | ataggaaa |
| C.Bri | tcgtcatt | gcaggttttgtt...276...attagcagccggtaaccgta | GGTAACGTGTgGGCGt              | --tgtgtacatgtagaaaact...1545...taataccaattt  | ccaggaaa |
| C.Bre | tcgtcatt | gcaggttttgtt...301...attagcagccggtaaccgta | GGTAACGTGTgGGCGt              | ttgtgtatacatgtcgaaaa--...1071...aattttattttt | ccaggtaa |
| C.Rem | tcgtcatt | gcaggttttgtt...350...attagcagccggtaaccgta | GGTAACGTGTgGGCGt              | --tgtgtacatgtcgaaaact...649...acgttttcattt   | tcaggaaa |
|       | *****    | *****                                     | ***** ***** ***** ***** ***** | ***** ***** *****                            | *** ** * |

id=316316 gene=T27F2.2 name=T27F2.2 segment=chrV\_11635355.11636965.-1 type=IN

Figure 175: CS=6



```

C.Ele  tttagttc cacttatttttc...37...gctggtagataagttggttacTCTGcACACGtGTACTGGtatcatgctgtatgtgttccaaagattttacaaca-attttca ggcgtgag
C.Bri  attagttc cacttggtatct...37...ggtggtataatgattgttccTCTGcACACgtGTACTGgctttatgctgtatgagttccaaaga-tctacgaaca-attttca ggcgtgag
C.Bre  aaatattc cattgattaact...38...gatggtagataagacgttccTCTGcACACgtGTACTggcttcatgctgtatgagttccataga-tttacgaacaattttca ggcgtgag
C.Rem  ataggccc cacttatttct...39...ggtggtagatgagtcgtcccTCTGcACACgtGTACTGgctttatgctgtatgagttccaaaga-tttacgaacattttttca ggcgtgag
      *** ** * ***** * ** ***** * ***** * ***** * ***** * ***** * ***** * *****

```

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830.1 type=EN

```

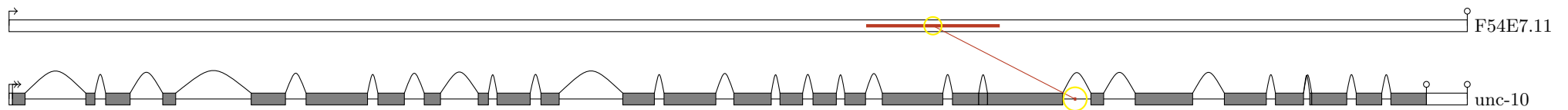
C.Ele  acggcagg taaatttgaatt...945...actgtgcgcgc-gc---gagagccCTGGTGGTGCCTGTGCGGAagaggacgcggaattgtt...3019...aaaattgcaga tgctacgc
C.Bri  acggcagg tgagtcagttat...1093...ac---gcgggc-gctctgtgcgca----CGGTGCGTGTGCGGAagaggacgcggaattttg...1594...attaattcaga tgccacc
C.Bre  gcagcagg tcagtcctttt...575...-cgtgatggactgcgagaaa-----GGTGCCTGTGCGGAaaaggacgcggaactgtt...1652...ttaagttacaga tgttacc
C.Rem  aatgcagg tgaggatttga...824...acgtgatgaactgcgcgcg-----CGGTGCGTGTGCGGAagaggacgcggaattgtg...1347...ttatgttcaga tgctacac
      ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=176048 gene=C24A1.2 name=C24A1.2 segment=chrIII\_709232.713278.1 type=IN VIEW

Figure 176: CS=5.52





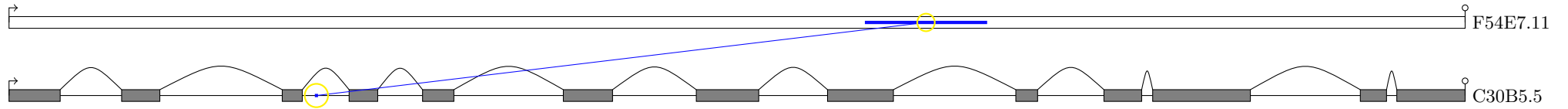
|       |          |  |           |          |   |  |          |
|-------|----------|--|-----------|----------|---|--|----------|
| C.Ele | ttagttc  | cacttattttc...32...--ataagctggta-gataagtt      | GTTA      | TCTG     | CACACGTG  | tactggatcatgctgtatgtgttccaaagattttacaaca-attttca | ggcgtgag |
| C.Bri | attagttc | cacttgttatct...30...acaataggtggataatga-        | TIGTT     | TCTG     | CACACGTG  | actggccttatgctgtatgattccaaaga-tctacgaaca-attttca | ggcgtgag |
| C.Bre | aatattc  | cattgattaact...38...-----gatggta-gataagacgttcc | TCTG      | CACACGTG | actggccttatgctgtatgattccataga-tttacgaacaattttca | ggcgtgag   |          |
| C.Rem | ataggccc | cacttatttct...39...-----ggtggta-gatgagtcgtccc  | TCTG      | CACACGTG | actggccttatgctgtatgattccaaaga-tttacgaacatttttca | ggcgtgag   |          |
|       |          | ** * **  | * ** ** * | ** * **  | *****   | * *****  | *****    |

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830\_1 type=EN

|       |           |  |          |             |           |  |          |
|-------|-----------|--|----------|-------------|-----------|--|----------|
| C.Ele | cgcaactat | cgcaaagtaagtgt-----gtaaaaaataggtgaca-----gaaaatgcatgtgaga-----gttacgt                      | CATG     | aaTGTGCAGAT | TAGT      | ---tgaagagtcgggcttcacc...50...agtttgagttat | tttcagtg |
| C.Bri | tgcactat  | cgcaaagtaagtgtcttaggggaaaaaactggaatatggtgtggttggggggggggggttttaggatgcatggaagatgagggtggtgac | ACATG    | aaTGTGCAGAT | ATTAGTGA  | aaaggggggtcaggacaac...102...aagtagttttcg   | tttcagtg |
| C.Bre | tgcactat  | cgcaagtgagtgtc--gtgaaaaaagtgggggatc-----gagagga-----aggatgcatggaatgagcgggggtgac            | GCATG    | aaTGTGCAGA  | ---ttagc  | aaaaggggtcaaac-----...70...aaaagttgttg     | ttacagtg |
| C.Rem | tgcactat  | cgcaagtaagtgtgaaaagaagaaaa---aaacg-----agaggattttcgggatgaaatgaaagatga-ggtggtgac            | GCATG    | aaTGTGCAGA  | ---ttagtc | gaaaaggggtcaggg-----...49...ggaaaagtttt    | tttcagtg |
|       | *****     | **** * ** *  | * * ** * | ** * **     | *****     | * **                                       | **       |

id=13867 gene=T10A3.1 name=unc-10 segment=chrX\_7274343.7274497\_-1 type=IN

Figure 177: CS=5.52



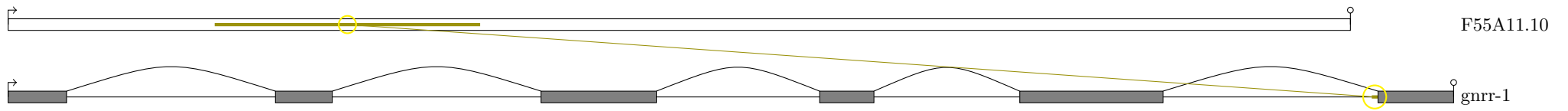
|       |          |   |                    |                    |                    |   |  |          |
|-------|----------|---|--------------------|--------------------|--------------------|---|--|----------|
| C.Ele | ttagttc  | cacttattttc...32...-----aataagctggtagataaagt  | <b>GTTA</b>        | <b>TCTGCCACACG</b> | <b>TGT</b>         | actggtatcatgctgtatgtgttccaaagattttacaaca-attttca    | ggcgtgag   |          |
| C.Bri | attagttc | cacttggtatct...37...-----ggtggtataatgattgttcc | <b>TCTGCCACACG</b> | <b>T</b>           | <b>T</b>           | gtactggctttatgctgtatgagttccaaaga-tctacgaaca-attttca | ggcgtgag   |          |
| C.Bre | aaatattc | cattgattaact...38...-----gatggtagataagacgttcc | <b>TCTGCCACACG</b> | <b>T</b>           | <b>T</b>           | gtactggcttcatgctgtatgagttccataga-tttacgaacaattttca  | ggcgtgag   |          |
| C.Rem | ataggccc | cacttatttct...28...tgatgtaatagggtgtaga        | <b>TGAGTGTG</b>    | <b>TCC</b>         | <b>TCTGCCACACG</b> | <b>T</b>  | gtactggctttatgctgtatgagttccaaaga-tttacgaacaattttca | ggcgtgag |
|       | *        | * * * *                                       | *                  | *****              | *                  | *****   | *****  |          |

id=64095 gene=F54E7.11 name=F54E7.11 segment=chrIII\_5679700.5679830.1 type=EN

|       |          |  |                   |               |                                   |   |                            |                      |          |
|-------|----------|--|-------------------|---------------|-----------------------------------|---|----------------------------|----------------------|----------|
| C.Ele | gtcacgat | agaacgatacttggcagtttgtcatccaaaagcagtaaaa     | <b>ACATGTGTGG</b> | <b>tCAGG</b>  | <b>taTGAT</b>                     | -----tcacatgcagacctaattta...96...aggtcagtaaac | aattccat                   |                      |          |
| C.Bri | gtaacaat | tgaacgatatttggcagtttgtcatccgaaacgaagcaaaatg  | <b>ATGTGTGG</b>   | <b>acCAGG</b> | -----taaaggattcctg----gaactc----- | ...100...aggtcagtgagc                         | atagtagt                   |                      |          |
| C.Bre | gtgacaat | tgaacgatatctggcagtttgtcatccgaaacgaagcaaaatg  | <b>ATGTGTGG</b>   | <b>acCAGG</b> | -----tagatttttg-atgagggttt-----   | ...97...aggtcagtgagc                          | aactcaaa                   |                      |          |
| C.Rem | gtcacaat | agaacgttatctggcagttatgtcatccgaaacgaagcaaaatg | <b>ATGTGTGG</b>   | <b>acCAGG</b> | <b>taGGGCGA</b>                   | <b>ttCTCG</b>                                 | gaactattgttttctaaacat----- | ...89...aggtcagtgagc | aaagtgat |
|       | ** ** *  | *****  | **                | *****         | *****                             | *****   | *****                      |                      |          |

id=171023 gene=C30B5.5 name=C30B5.5 segment=chrII\_6206345.6206535.-1 type=IN

Figure 178: CS=5.8



```

C.Ele  tatcgagc ggtgatGAATGcACGTATTgcTCTGacacacctttagttagcgggt...34...ctgagctctttt gagcttca
C.Bri  gacagagc ggtgatGAATGCACgTATTgcTCTGAcacacctttagttagcggta...33...ctgagctctttt gaagctct
C.Bre  ttacgagc ggtgatGAATgCACGTATTgcTCTGacacacctttagttagcgggt...34...ctgagctctttt gaagtttt
C.Rem  acccgagc ggtgatGAATGCACgTATTgcTCTGAcacacctttagttagcggta...33...ctgagctctttt agactatt
      **** *****

```

id=220354 gene=F55A11.10 name=F55A11.10 segment=chrV\_11782973\_11783063\_1 type=EN

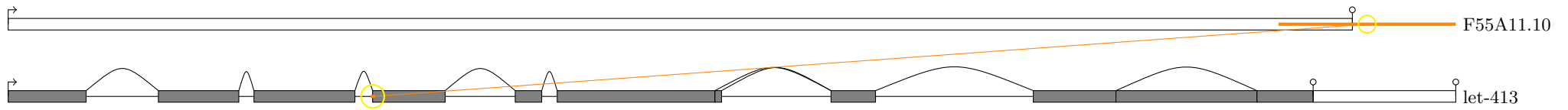
```

C.Ele  gtttagcag gtga-----gattttttt:::::ccctttcctataatctatcctatttcttgaatttcctttCAGAAATGTcCATTC---ttcttcag aaatcaag
C.Bri  atcagcag  gtaa-----::::::-----atactatcatttccttttct-----TCAGAAATGTGCATTC---ttcttcag aaatcaag
C.Bre  atcagcag  gtaa-----::::::-----ctaatactttccttttctt-----CAGAAATGTGaATTC---ttcag aaatcaaa
C.Rem  atcagcag  gtaattataaagttaattggtcaattatcttt:::::aaaattcccaaaaaattcccgatttcccaat-----TCAGAAATGTGCATTCctcttcttcag aaatcaga
      * ***** ** *                               * * * **** ***** ** *

```

id=197158 gene=F54D7.3 name=gnrr-1 segment=chrI\_4803274\_4803991\_1 type=IN

Figure 179: CS=5.96



```

C.Bri  gacagagcgggtgatgaatgc...41...gtgccgcatgagtcctaattGGATcTCTGAGCTcTTT-gaagctct---
C.Bre  ttacgagcgggtgatgaatgc...46...-----gcatgagtcactaggatcTCTGAGCTcTTTgaAGTT-----t
C.Jap  tcctgagcagtgacgaatgc...46...-----gctgtgattccaactggatcTCTGAGCTcTTTg-----tttccgt
C.Rem  acccgagcgggtgatgaatgc...46...-----gcatgagtcacttggatcTCTGAGCTcTTTAgactatt-----
          ****  ***  *****          **  **  ***  *****  *****  *****  *

```

id=220354 gene=F55A11.10 name=F55A11.10 segment=chrV.11782973.11783063.1 type=EN

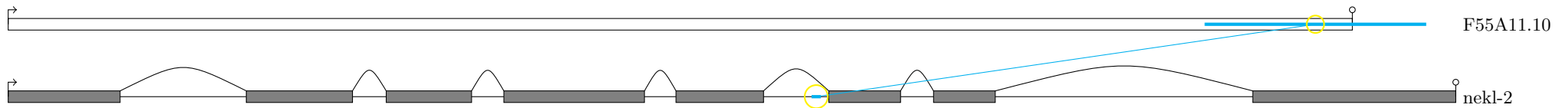
```

C.Bri  tcagttgggtgagt-----tttga-aatctacagatcagaatcattgaaaagtg--AAAAAGCTtaCAGAcGTTcc
C.Bre  tcagctgggtgagt-----ttctag-----tgaattagagattactg--AAAACTAAAAAGCTttCAGAcgtgtca
C.Jap  tcagttgggtgagtaacaagttgaacaattt-----tcgctttgacgtatCAAAAAAGCTttCAGAcgtgtcg
C.Rem  tcaattgggtgagt-----ttttgagaatct--agaacagatcgtttgaagaa--TAAAAAGCTtaCAGAcgtgtca
          ***  *****          *          *          *          *          *****  *****  **

```

id=11114 gene=F26D11.11 name=let-413 segment=chrV.7976600.7976655.-1 type=IN VIEW

Figure 180: CS=5.84



```

C.Bri  gacagagcggatgatgaatgc...41...----gtgccgcgatgagtccaattGGATcTCTGAGcTCTTttgaagctct
C.Bre  ttacgagcggatgatgaatgc...36...tttccgtgccgcgatgagtcCACTAGGATcTCTGAGcTCTTttgaagtttt
C.Jap  tcctgagcagtgacgaatgc...41...----gtgccgcgtgattccaactGGATcTCTGAGcTCTTttgtttccgt
C.Rem  acccgagcggatgatgaatgc...36...tttccgtgccgcgatgagtcCACTTGGATcTCTGAGcTCTTttagactatt
      **** ** *
      *****
      ***** ** *
      *****
  
```

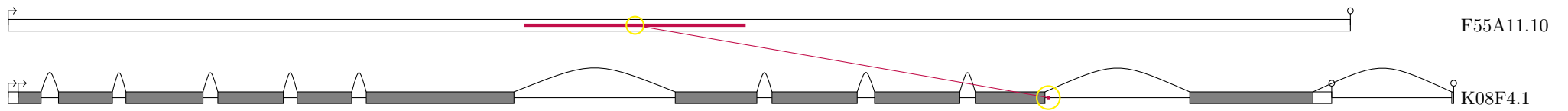
id=220354 gene=F55A11.10 name=F55A11.10 segment=chrV.11782973\_11783063.1 type=EN

```

C.Bri  ttacacaggttcgtttcaaaaacggcaaa----aagagataggtcccaccgagatttgaactcgggtcgcAGGATTCAGAGTCCtgagtgctaaccactacacc-----...116...gtacacttgcagggaaagct
C.Bre  ttacgcagtaagtggaaaaaagtgtaaa----aagcgataggtcccaccgagatttgaactcgggtcgcAGGATTCAGAGTCCtGAGTgctaaccactacaccatggaa...114...atthtttgcagggaaact
C.Jap  ttacaaaagttcat----aaaatttcaaatcaaaaacgataggtcccaccgaga-ttgaactcgggtcgcAGGATTCAGAGTCCtgagtgctaccgctacacc-----...81...agaaagtgtaaataaaagca
C.Rem  tcacacagtaacc----ataaattgc-aa----aagcgataggtcccaccgagatttgaactcgggtcgcAGGATTCAGAGTCCtGAGTgctaaccactacaccatggaa...97...gaagagtcgagtcaaatca
      * * *
      ***
      **
      ** *****
      *****
      *****
      * * *
  
```

id=154362 gene=ZC581.1 name=nekl-2 segment=chrI.6664197\_6664287.1 type=IN

Figure 181: CS=5.28



```

C.Ele  tatcgagc ggtgatgaatgcacgtattgctctgacACCTctTATGttAGCGGTaaatttcogtgccgcatgagtcactaggatctctgagctctttt gagcttca
C.Bri  gacagagc ggtgatgaatgcacgtattgctctgacACCTctTATGttAGCGGTaaatttcogtgccgcatgagtcactaggatctctgagctctttt gaagctct
C.Jap  tcctgagc agtgacgaatgcacgtattgctctgacACCTctTATGttAGCGGTatatttcogtgccgctgtgattccaactggatctctgagctctttt gttccgt
C.Rem  acccgagc ggtgatgaatgcacgtattgctctgacACCTctTATGttAGCGGTaaatttcogtgccgcatgagtcactaggatctctgagctctttt agactatt
****  **** *****

```

id=220354 gene=F55A11.10 name=F55A11.10 segment=chrV.11782973.11783063.1 type=EN

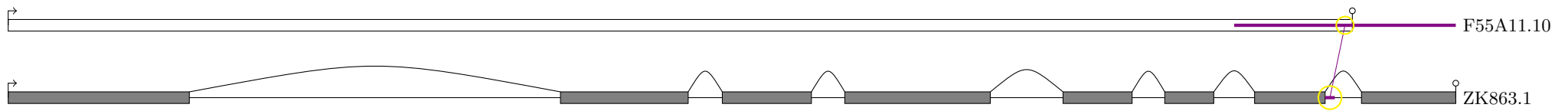
```

C.Ele  atgATTGC TCATAAGGTTtgatattattgttttaattaattttctttcattgcctg:::-----taaaattttcaga
C.Bri  ttgATTGC TCATAAGGT-----attttcgaaagca-----ttctaggccctg:::agggcctgcgagttattccaagtgagacaacaatttcaga
C.Jap  atgATTGC TCATAAGGT-----:-----:-----a
C.Rem  ttgATTGC TCATAAGGT-----:-----:-----ttaaaga
***** *****

```

id=138053 gene=K08F4.1 name=K08F4.1 segment=chrIV.10122916.10123364.-1 type=IN

Figure 182: CS=6.32



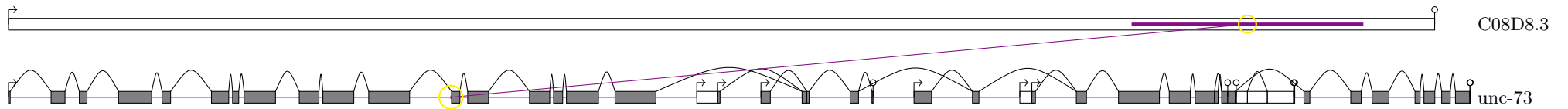
|       |          |  |                       |          |
|-------|----------|--|-----------------------|----------|
| C.Ele | tatcgagc | ggtgatgaatgc...41...--gtgccgcgatgagtccacta | GGATCTcTGAGCTCTTTT    | gagcttca |
| C.Bri | gacagagc | ggtgatgaatgc...38...tccgtgccgcgatgagtcca   | ATTGGATCTctGAGCTCTTTT | gaagctct |
| C.Bre | ttacgagc | ggtgatgaatgc...41...--gtgccgcgatgagtccacta | GGATCTcTGAGCTCTTTT    | gaagtfff |
| C.Rem | acccgagc | ggtgatgaatgc...40...-cgtgccgcgatgagtccact  | TGGATCTctGAGCTCTTTT   | agactatt |
|       | ****     | *****                                      | ***** * *****         |          |

id=220354 gene=F55A11.10 name=F55A11.10 segment=chrV.11782973\_11783063\_1 type=EN

|       |       |         |           |  |           |
|-------|-------|---------|-----------|--|-----------|
| C.Ele | a     | AGAAGCT | CAAGGTTc  | -gtcttcttataaattaaccattatataactttatgccat | tcaggaaa- |
| C.Bri | a     | AGAAGCT | CcAGGTTtg | TAATccttttc-----ttcttttctttcaattcatcca-- | ttttgcaga |
| C.Bre | a     | AGAAGCT | CAAGGTTT  | -gttgtctattcaatc-tcttttctttcaatccattcaat | ttttgcag- |
| C.Rem | a     | AGAAGCT | CcAGGTTTG | taatcctttcc--cc-ttcatttcattcattttatttcct | ttttgcag- |
|       | ***** | * ***** | **        | ** * * * *                               | * * *     |

id=145689 gene=ZK863.1 name=ZK863.1 segment=chrV\_12168330\_12168378\_-1 type=IN VIEW

Figure 183: CS=5.04



|       |          |   |                            |          |
|-------|----------|---|----------------------------|----------|
| C.Ele | ctatcatc | acttgttacatccaatgatgagagtttgcgactagggcggctttacacaatcatg | GTGATTCTagTCATTctGATGGT-ac | gtaacatt |
| C.Bri | tgttcgcc | acttgttacatcctatgatgagagtttgcgactagggcggtcatacataatcatg | GTGATTCTagTCATTctGATG-gtac | gtaacaaa |
| C.Bre | caccggtg | acttttacaatcctatgatgagagtttgcgactagggcggtcatacataatcatg | GTGATTCTagTCATTctgatggtaat | gtaacagt |
| C.Rem | gtctcttc | acttgttacatcctgtgatgagagtttgcgactagggcggcttactaaatcatg  | GTGATTCTagTCATTctGATG-gtac | gtaacaag |
|       |          | **** * **** *****                                       | **** *****                 | *****    |

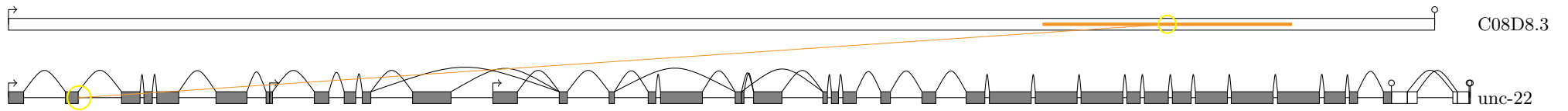
id=93660 gene=C08D8.3 name=C08D8.3 segment=chrV.8349088.8349167\_1 type=EN

|       |          |  |                        |         |          |
|-------|----------|--|------------------------|---------|----------|
| C.Ele | aagtgaac | ggtaagccttaa...465...gtctcctctggttatgatac      | ACCATTtAATGAaAGAAaTTAC | ggttcca | ggaagcga |
| C.Bri | tagtgaac | ggtaagcgagaa...316...-tcttcgcctcttat-atgaga    | CATCtGATGAaAGAAaTTAC   | ggttcca | ggaagcgg |
| C.Bre | aggcgaac | ggtaagtaaaaa...111...-tttcttat-ctacaccattt---- | ATGAaAGAAaTTAC         | ggttcca | ggaagcga |
| C.Rem | gaacgaac | ggtaggttacac...583...-ttttatag-ttatgatacgg     | CATTtGATGAaAGAAaTTAC   | ggttcca | ggaagcga |
|       |          | **** * * * * *                                 | **** *****             | *****   | *****    |

id=53221 gene=F55C7.7 name=unc-73 segment=chrI.4023754.4024279\_-1 type=IN

Figure 184: CS=5.04





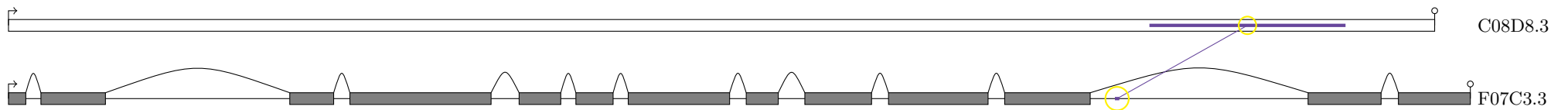
|       |          |   |                  |                 |          |
|-------|----------|---|------------------|-----------------|----------|
| C.Ele | ctatcatc | acttgttacatccaatgatgagagtttgcgactagggcggctcttacacaa | TCATggTGATTCTAGT | cattctgatggt-ac | gtaacatt |
| C.Bri | tgttcgcc | acttgttacatcctatgatgagagtttgcgactagggcggtcatacataa  | TCATggTGATtCTAGT | cattctgatggt-ac | gtaacaaa |
| C.Bre | caccggtg | acttttacaatcctatgatgagagtttgcgactagggcggtcatacataa  | TCATggTGATtCTAGT | cattctgatggtaat | gtaacagt |
| C.Rem | gtctcttc | acttgttacatcctgtgatgagagtttgcgactagggcggctcttactaaa | TCATggTGATtCTAGT | cattctgatggt-ac | gtaacaag |
|       |          | **** *  | *****            | **** *          | *****    |

id=93660 gene=C08D8.3 name=C08D8.3 segment=chrV.8349088\_8349167\_1 type=EN

|       |          |             |   |          |
|-------|----------|-------------|---|----------|
| C.Ele | acATTAGt | GATCAagGTGA | -----gacattttt-----gagagtatcgg...743...aaaataaaaatt | attccagg |
| C.Bri | acATTAGt | tATCAagGTGA | -----gaagaagat-----aaaaactgagt...532...aaaaaaaaattt | ataggaac |
| C.Bre | acATTAGt | tATCAagGTGA | -----gaaatcttctttcgagacg-----...235...cttaaaacgtg   | attccagg |
| C.Rem | acATTAGt | tATCAagGTGA | gagaaatgaagttttt-----gaaa-----...188...aagcattctgtg | atttcagg |
|       | *****    | *****       | ** * * *  | * ** *   |

id=26673 gene=ZK617.1 name=unc-22 segment=chrIV.12008397\_12009182\_-1 type=IN

Figure 185: CS=5.44



```

C.Bri  tgttcgccacttggttacatcctatgatgagagtttgcgactagggcggtcatacataatcatggTGATTCTAGTCAattctgatggt-acgtaacaaa
C.Bre  caccggtgacttttacaatcctatgatgagagtttgcgactagggcggtcatacataatcatggTGATTCTAGTCAattctgatggtaatgtaacagt
C.Jap  cgatggtcacttggttacacccagtgatgagagtttgcgactagggcggtcatacacaataatggTGATTCTAGTCAattctgatggt-tcgtaacaaa
C.Rem  gtctcttcacttggttacatcctgtgatgagagtttgcgactagggcggcttactaaatcatggTGATTCTAGTCAattctgatggt-acgtaacaag
      *** * * * ***** ** ** *****

```

id=93660 gene=C08D8.3 name=C08D8.3 segment=chrV.8349088.8349167.1 type=EN

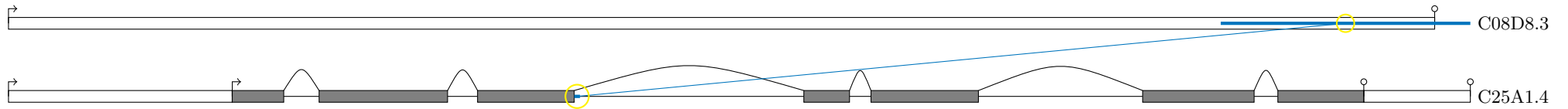
```

C.Bri  agcagaaaaaggtaagagaa...27...ggatcgaacctgcaatcttcTGATTAGAAGTCAgacgccttatccattaggcc...86...ttggac--ttcttcaggatca
C.Bre  atcagaaaaaagtaagtaaa...26...ggctcgaacctgcaatcttcTGATTAGAAGTCAgacgccttatccattaggcc...185...--aattaattcttcaggacca
C.Jap  aacaaaaaaggtaatttaa...28...gggtcgaacctgcaatcttcTGATTAGAAGTCAgacgccttatccattaggcc...82...ttcaat--gctttgcaggatca
C.Rem  accagaaaaaggttaatatt...49...ggctcgaacctgcaatcttcTGATTAGAAGTCAgacgccttatccattaggcc...104...--caaccgtatttacaggatca
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=8892 gene=F07C3.3 name=F07C3.3 segment=chrV.9228127.9229886.-1 type=IN VIEW

Figure 186: CS=8.72



```

C.Ele ctatcatc acttgttacatc...28...tcttacacaatcatggatggtgatTCTAgtCATTcTGATggt-ac gtaacatt
C.Bri tgttcgcc acttgttacatc...28...tcatacataatcatggatggtgatTCTAgtCATTCTGATggt-ac gtaacaaa
C.Bre caccggtg acttttacaatc...28...tcatacataatcatggatggtgatTCTAgtCATTcTGATggtaat gtaacagt
C.Jap cgatggtc acttgttacacc...28...tcatacacacaataatggatggtgatTCTAgtCATTcTGATggt-tc gtaacaaa
C.Rem gtctcttc acttgttacatc...28...tcttactaaatcatggatggtgatTCTAgtCATTcTGATggt-ac gtaacaag
**** * * * ** *** ** *****

```

id=93660 gene=C08D8.3 name=C08D8.3 segment=chrV.8349088.8349167.1 type=EN

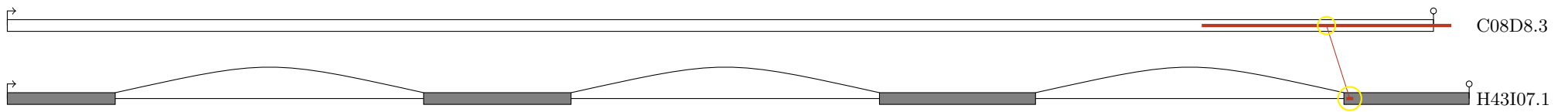
```

C.Ele aTCGccAA TGTAGGtttcaaattttcttcttc...677...caaacattttca gttggcct
C.Bri aTCGcGAA TGTAGGtttcaaattttcttcttaat...282...atgcgatttaca gttggcat
C.Bre aTCGccAA TGTAGGtttcaatctttcatcacga...404...agagagctttca gctggcct
C.Jap aTCGccAA TGTAGGtttttggatggtatt...2509...atttattttcta gttggcat
C.Rem aTCGccAA TGTAGGtttcaaattttcatcttcg...244...ttgaggtttaca gttagcgt
**** ** ***** * ** ** * * * *

```

id=284091 gene=C25A1.4 name=C25A1.4 segment=chrI.10171115.10171829.-1 type=IN

Figure 187: CS=7.05



```

C.Ele ctatcatc acttgttacatc...27...gtcttacacaatcatggggaTTCTagTCATtCTGAtGGTA-c gtaacatt
C.Bri tgttcgcc acttgttacatc...27...gtcacacataatcatggggaTTCTagTCATtCTGATGG-tac gtaacaaa
C.Bre caccggg acttttacaatc...27...gtcacacataatcatggggaTTCTagTCATtCTGAtGGTAAAt gtaacagt
C.Rem gtctcttc acttgttacatc...27...gtcttactaaatcatggggaTTCTagTCATtCTGA-tggtac gtaacaag
**** * *** ** ** *****

```

id=93660 gene=C08D8.3 name=C08D8.3 segment=chrV.8349088.8349167.1 type=EN

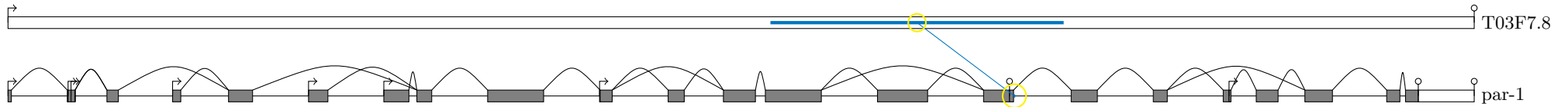
```

C.Ele tctcgacg gtacgtacgatg...1379...--tccttccctgaatcccacta-TATCtTCAG ATGAAGAa
C.Bri tctcgatg gtacgttcggtg...652...aaccctgtccctcattttt---CCATTTCAG ATGAAGAa
C.Bre tctcgatg gtacgttcgatg...376...--tcctgcttatcacatgccctTTATCtTCAG ATGAAGAa
C.Rem tctcgatg gtacgttcgatg...338...-cgactatccattatctctc-----TCAG ATGAAGAa
***** * ***** ** ** ** ** * *****

```

id=327898 gene=H43I07.1 name=H43I07.1 segment=chrV.4206730.4208149.1 type=IN VIEW

Figure 188: CS=5.28



```

C.Ele cccgcctg tgatgcttttcatgctgtcagctgagatccCCTGATTAGAAcCACc-cttgaggttgtattaactgaggctattt ttcggttt-----
C.Bri cccgcca tgatgg-tttcatgctgtcagctgagatccCCTGATTAGAAcCACc-cttgaggtttgactaactgaggctattt tgtacttt-----
C.Bre cacgccc tgatggttttcatgctgtcagctgagatccCCTGATTAGAAcCACc-cttgaggtttgactaactgaggcaattt tgctgttt-----
C.Jap tccgccag tgatgcttttcatgctgtcagctgagatccCCTGATTAGAAaCACc-cttgaggttgtattaactgaggctattt tgttcttt-----
C.Rem cccgcca tgatgg-tttcatgctgtcagctgaaatccCCTGATTAGAAAGCACccttgaggtttgactaactgaggctactt ttaattttctttcttttcttt
**** *****

```

id=186969 gene=T03F7.8 name=T03F7.8 segment=chrV\_11314240\_11314314\_1 type=EN

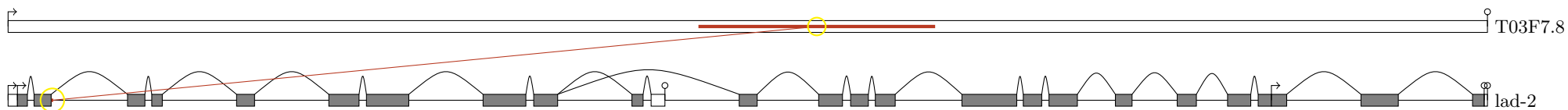
```

C.Ele gGTGcTTC TAGTCAGGta-----agctcctatgctctcact...782...agcttca---agta ttttcagc-
C.Bri gGTGcTTC TAGTCAGGta-----cgtcatttttcgatattt...336...agaattt---agca atttcagca
C.Bre gGTGcTTC TAGTCAGGta-----agacaatgtttcttctct...414...cagcttca---atta atttcagc-
C.Jap gGTGcTTC TAGTCAGGta-----cggccttttcnnnnnnnn...1151...---ttcgaatcaata ttttcagc-
C.Rem gGTGCTTC TAGTCAGGtaggcggggcgatttttcgg-----...456...catttcca---acca ttttcagc-
*****

```

id=73270 gene=H39E23.1 name=par-1 segment=chrV\_14116666\_14117487\_-1 type=IN VIEW

Figure 189: CS=6



```

C.Ele cccgcctg tgatgcttttcatgctgtgcagctgag ATCCCCTGaTTAGaaccaccc-ttgaggttgattaactgaggcta-----ttt ttcggtt
C.Bri ccgccca tgatgg-tttcatgctgtgcagctgag ATCCCCTGaTTAGaaccaccc-ttgaggtttgactaactgaggcta-----ttt tgtacttt
C.Bre cacgccc tgatggttttcatgctgtgcagctgag ATCCCCTGaTTAGaaccaccc-ttgaggtttgactaactgaggcaa-----ttt tgcgttt
C.Rem cccgcaa tgatgg-tttcatgctgtgcagctgaa ATCCCCTGaTTAGaagcaccctttgaggtttgactaactgaggctacttttaattttcctttcctt tttccttt
* *** *

```

id=186969 gene=T03F7.8 name=T03F7.8 segment=chrV\_11314240.11314314.1 type=EN

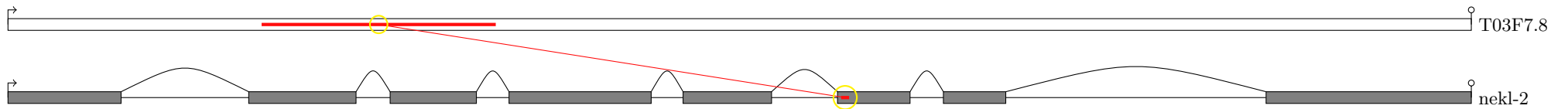
```

C.Ele taCTGACA GGtGGTggaaatttgggattgacaggtgctgcgtaaaacatgcaag:::::atgtaggcaggcatttatcaactctatttcca gatactcc
C.Bri taCTGACA GGtGGTggaaac-----:-----ccgatcctattaca gatactcc
C.Bre taCTGACA GGtGGTggaaat-----:-----aaattca gatacag
C.Rem taCTGACA GGtGGTggaaat-----:-----cttgacttca gatactat
***** ***** * ** *****

```

id=125189 gene=Y54G2A.25 name=lad-2 segment=chrIV\_2977446.2978169.-1 type=IN

Figure 190: CS=6.56



```

C.Bri cccgccatgaTGG-TTTCATGcGTGTcagctgagatcccctgattagaaccacc-ttgaggtttgactaactgaggcta-----tttgacttt
C.Bre cacgcccgtgaTGGTTTTCATGcGTGTcagctgagatcccctgattagaaccacc-ttgaggtttgactaactgaggcaa-----tttgctgttt
C.Jap tccgccagtgaTGTTTTCATGcGTGTcagctgagatcccctgattagaaccacc-ttgaggtttgactaactgaggcta-----tttgcttctt
C.Rem cccgccaatgaTGG-TTTCATGcGTGTcagctgaaatcccctgattagaagcacccttgaggtttgactaactgaggctactttaatttcttttcttttcttt
    ****  ****  *****

```

id=186969 gene=T03F7.8 name=T03F7.8 segment=chrV.11314240.11314314.1 type=EN

```

C.Bri ttacacaggttcgtttcaaa...56...agtcctgagtgctaaccactACACCATGGAACCG-gcagaaaagagagacattga...87...gtacacttcagggaaagct
C.Bre ttacgcaggttaagtggaaa...56...agtcctgagtgctaaccactACACCATGGAACCG-ccatcaccaccgacacaga...91...atTTTTTgcaggggaaact
C.Jap ttacaaaggttcataaaatt...54...agtcctgagtgctaaccgctACACCATGGAACCGgacgagaaagagttgttatc...53...agaaagtgtaaataaaagca
C.Rem tcacacaggttaaccataaat...51...agtcctgagtgctaaccactACACCATGGAACCG-cggcggaagagaggttcaaa...74...gaaggagtcgagtcaaatca
* ** **** * ***** ** ***** * * * * *

```

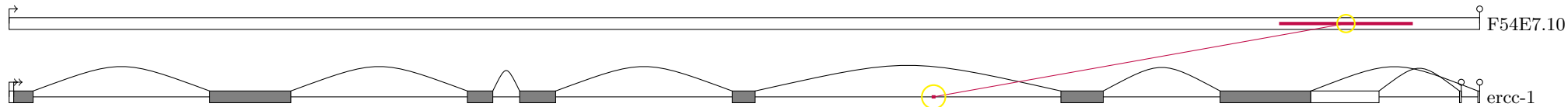
id=154362 gene=ZC581.1 name=nekl-2 segment=chrI.6664197.6664287.1 type=IN

Figure 191: CS=5.28









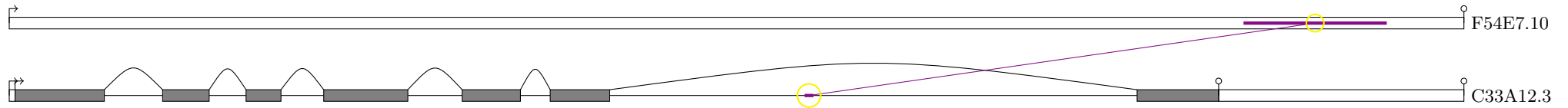
|       |                   |                         |                      |                   |             |                    |             |                    |
|-------|-------------------|-------------------------|----------------------|-------------------|-------------|--------------------|-------------|--------------------|
| C.Ele | -----aatcttgc     | acctaccaatta...73...--- | ctggccttgaagctgtatcg | <b>GTTCCAAAGT</b> | <b>TGTT</b> | cgaaca----         | atta-gat    | tccttgtc--         |
| C.Bri | a-----cttca--gc   | acataaatacgg...67...--- | ctggccttgaagctgtatcg | <b>GTTCCAAAGT</b> | <b>TGTT</b> | cgaacaattcattagaaa | atactgttac  |                    |
| C.Bre | -----attagtgc     | acatactcattt...71...--- | ctggcctataagctgtatcg | <b>GTTCCAAAGT</b> | <b>TGTT</b> | cgaacatttcgtttgaa  | tga-----    |                    |
| C.Jap | a-----aatta--gc   | acataaatacgg...63...agt | gctggcctagaagctgc    | <b>ATTG</b>       | <b>TTC</b>  | <b>AAAGT</b>       | <b>TGTT</b> | cgaacaattcgcta---- |
| C.Rem | atcttgctaattg--gc | acata-----...74...---   | ctggcctacaagctgtatcg | <b>GTTCCAAAGT</b> | <b>TGTT</b> | cgaaca----         | attattag    | tcatagct--         |
|       |                   | ** ** *                 |                      | *****             | *****       | **                 | *****       | *                  |

id=38075 gene=F54E7.10 name=F54E7.10 segment=chrIII\_5679333\_5679464\_1 type=EN

|       |          |                                |               |                         |                |               |                    |          |
|-------|----------|--------------------------------|---------------|-------------------------|----------------|---------------|--------------------|----------|
| C.Ele | cgatcaag | taggtttctctt...1081...agcaattt | gtgg-gcgaagga | <b>AGCACTTTGGGAT</b>    | aattttatgg---  | gtttttaga...  | 329...ttaatttcaga  | aaaaaggc |
| C.Bri | cggtaag  | tgagtttccgtt...393...agcaattt  | gcgg-acggagga | <b>AGCACTTTGGGAT</b>    | aattttatgg---  | gtgctgggaa... | 213...ctacattccagg | aaaaaagc |
| C.Bre | cgatcaag | taagtttcgaaa...509...agcaattt  | gcgg-gtgaagga | <b>AGCACTTTGGGAT</b>    | aattttatgg---  | gtgtgggaa...  | 216...ccaatttcaga  | aagaaagt |
| C.Jap | caatcaag | tgagtagttttg...893...acaattt   | gcggcacaagga  | <b>AGCACTTTGGGATAAT</b> | ttttatggcgcgtt | ttgtaa...     | 2285...ttcaacttaga | aaaaagcc |
| C.Rem | cgatcaag | tgagtttctct...435...agcaattt   | gcgg-gcgaagga | <b>AGCACTTTGGGAT</b>    | aattttatgg---  | gtgtgggaa...  | 147...ttgatttacaga | aagaaagc |
|       | * *****  | * **                           | *****         | **                      | *****          | ** * *        | * **               | ** **    |

id=291183 gene=F10G8.7 name=ercc-1 segment=chrI\_10044077\_10045563\_1 type=IN

Figure 194: CS=6.25



```

C.Ele -----aatcttgc acctaccaatta...72...actggccttgaagctgtatc GGTTCCAAAGTTGT tccaacaatt-----agat tccttgtc
C.Bri a-----cttca--gc acataaatacgg...66...actggccttgaagctgtatc GGTTCCAAAGTTGT tccaacaattcattagaaaat actgttac
C.Bre -----attagtgc acataactcatt...70...actggcctataagctgtatc GGTTCCAAAGTTGT tccaacatttcgttttgaatg a-----
C.Jap a-----aatta--gc acataaatacgg...66...gctggcctagaagctgcatt GGTTCCAAAGTTGT tccaacaattcgcct----at ttttctgc
C.Rem atcttgctaattg--gc acata-----..73...actggcctacaagctgtatc GGTTCCAAAGTTGTTG gaacaattattagtcatag ct-----
** ** *                *****  ***** * *****

```

id=38075 gene=F54E7.10 name=F54E7.10 segment=chrIII\_5679333.5679464.1 type=EN

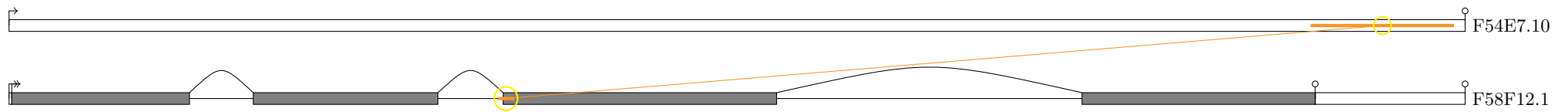
```

C.Ele atggaact tattcggtagc...261...--ccttggttaaagaccggaagt ACAATTTTGaAGCC ctgtctc--tcgaggcagggga...491...taaaataaaat tttcagga
C.Bri atgggaca tactcggtaagg...418...--ccttacttaagaccggtgt ACAATTTTGAGCC ctgtcgc--ttcggcagggta...854...aaaattgataat tttatttc
C.Bre atggaaca tattcggtaatt...409...--ccttacagaagaccggaagt ACAATTTTGcAGCC ctttctc--tcgggtcagggta...785...accagagtttt tttcagga
C.Jap atggcact ttttcggtagg...2376...--ccttggttaagaccggaagt ACAATTTTGcAGCC ctgtccttctttggtcaggg--...2283...ttaactcctca tttcagga
C.Rem atggaaca tattcggtaagt...342...ggccttgtaaagaccggaagt GAACAATTTTGcAGCC ctgttct--ttggatcagggta...645...aaaggaataat tttcagga
*** ** * *****                *****  ***** * ***** * * *****

```

id=49049 gene=C33A12.3 name=C33A12.3 segment=chrIV\_9511236.9512066.-1 type=IN

Figure 195: CS=6



```

C.Ele aatctt-----gc acctaccaatta...78...cttgaagctgatatcggttccAAAGtTGTTcGAAC----a---attag---at tccttgctc
C.Bri acttca-----gc acataaatcgg...72...cttgaagctgatatcggttccAAAGtTGTTcGAACA---atcattagaaaat actgttac
C.Bre attagt-----gc acatactcatt...76...ctataagctgatatcggttccAAAGtTGTTcGAACATTcgttttgaatga-- -----
C.Rem atcttgctaattggc acata-----...79...ctacaagctgatatcggttccAAAGtTGTTcGAACA---att-attagtcata gct-----
*          ** ** **          ** *****

```

id=38075 gene=F54E7.10 name=F54E7.10 segment=chrIII\_5679333.5679464.1 type=EN

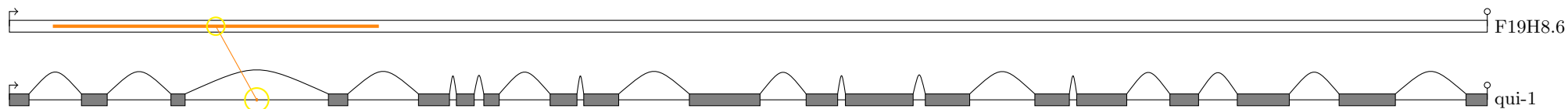
```

C.Ele ---gcaaaaat aaattgtattatcaccaaagaatttttcaggaacaGTTCAACGcCTT Ttcgtctc
C.Bri ---ttactaat agaagatattatgtc--gatgattttccaggaacTGTTCACGtCTT Tttgtttc
C.Bre gtcgaagtaat ggaa-atattac-----gataactcttcaGGATctGTTCAACGtCTT Tttgtatc
C.Rem ataacatcaag ggaatattcta-aac--agttttactccaggaacTGTTCACGcCTT Ttcgtctc
* **          * * **          * ***** * ***** ** ** ** **

```

id=189606 gene=F58F12.1 name=F58F12.1 segment=chrII\_6383920.6383966.1 type=IN

Figure 196: CS=5.64



```

C.Bri  tTGGATaaGTTTcGGCTGATTcataattgatgtcaactttataacttgctgagcactaacttttattc-----ttttaagcatttcactattt
C.Bre  tTGGATaaGTTTcGGCTGaatic-cacttgatgtcaactta--tgcttactgagcgttttttgagctacaagaggctttta-----tttt
C.Jap  tTGGATaaGTTTcGGCTGATTc-tgattgatgctaatttgattatatgctgagcact--tttatact-----ttttc-----tttt
C.Rem  tTGGATaaGTTTcGGCTGATTc-tgattgatgtaaaactttgtaacttgctgagcactgttttttatt-----ttttta-----tttaaattt
***** **          ***** ** **          * ***** ** **          ***          **

```

id=57547 gene=F19H8.6 name=F19H8.6 segment=chrII\_14617068.14617135.1 type=EN

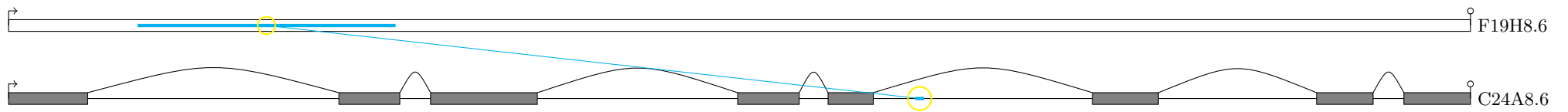
```

C.Bri  gtgagttc--aa---gggaaaagg-----...537...--aaagagag-----agagagcgacgaAATCCAGTTAAACggGTCCGcgcaggagaaaaagaaggca-----...356...tcagatgtccgtattttga
C.Bre  gtgagttc--aacttttgggag-----...572...--gaagag-----aaaaaacgaaatc---CAGTTAAACggGTCCGcgcagg-----agaaggcacttcac-----...477...acagatgttcgagtccttga
C.Jap  gtgagttc--gaatatttatg-----...2266...--gaggctttcgacgacacga---AATCCAGTTAAACggGTCCGcgcact-----tcacttttgagat...194...tcagatgtacgattttcga
C.Rem  gggag-----gaaagggtccccctg...517...gagagagagag-----aaaaaacga---AATCCAGTTAAACggGTCCGcgcagg--caaaagaaggcact-----...341...tcagatgttcgtgtcttga
* ***          *          ***          *          ***          ***** ** **          **          ***** ** * ** **

```

id=46653 gene=Y45F10B.10 name=qui-1 segment=chrIV\_13563092.13565173.1 type=IN

Figure 197: CS=5.52



```

C.Ele  aatgat----AA GTtTCGGCTGActc-aaattgatgacacctt--taatatgctgagcacttttacttttttaaaatttatt t-tcttttt
C.Bri  ----tTGGatAA GTtTCGGCTGAattcataattgatgtcaactttataacttgctgagcactaacttttatcttttaagcatt tcactattt
C.Bre  ----tTGGatAA GTTTCGGCTGAATc-cacttgatgtcaactt--atgcttactgagcgcttttttgagctacaagaggcttt t---athtt
C.Rem  ----tTGGatAA GTtTCGGCTGAattc-tgattgatgaaactttgtaacttgctgagcactgttttttattttt---tttatt t-aaaattt
          *   ** ***** **          *   **          *   **          *   **          *   **          *   **

```

id=57547 gene=F19H8.6 name=F19H8.6 segment=chrII\_14617068\_14617135\_1 type=EN

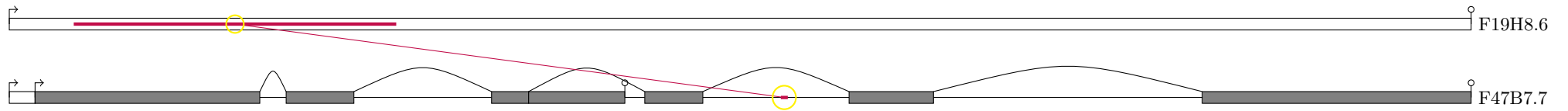
```

C.Ele  tcagctgg gtaagtacgact-----ttttt--gacagg---tcacac-----atttcttctaataagaacacat--tcttgacatTCAGttCTGAcACTTcaagttccggtcaatcgttc----...243...aatattttacag accaatga
C.Bri  tcagctgg gtaagttg---tgtgttttagttgtctgaacaggatttttaattaacctgattcttctaacagtaacacctgatc----tatTCAGttCTGAcACTTCCAGttctggtgactcgttcaaaa...230...aatgttttcag accaatga
C.Bre  tcggctgg gtaagtta-attgtgacacaatt---gacaag---ttcaat-----ctcttctaatagtaaacctt--cc----cATTTCAGttCTGAGACTTCCAGttctggtcaatcgttcaaaa...231...tatgattttcag accaatga
C.Rem  tcagctgg gtaagttctgttgtgatctcattttc--gacagg---ttcaatt---ctaactcttctaatagaatcct--cc----catTCAGttCTGAcACTTCCAGttcgggtcaatcgttcagaa...227...aacgttttcag accaatga
** ***** ***** *          **          *** *   *          ***** ** *   *   *          ***** ***** ***** ** *   *****          *   *** ** *****

```

id=320692 gene=C24A8.6 name=C24A8.6 segment=chrX\_4330656\_4331004\_-1 type=IN

Figure 198: CS=5.2



```

C.Ele  -aaTGATAa gTTTCggCTGA-ctcaaattgatgacacctt--taatatgctgagcacttttacttttttaaaatttatt t-tcttttt
C.Bri  ttg-GATAa gTTTCggCTGATtcataattgatgtcaactttataacttgctgagcactaacttttatcttttaaagcatt tcactattt
C.Bre  ttg-GATAa gTTTCggCTGA-atccacttgatgtcaactt--atgcttactgagcgcttttttgagctacaagaggcttt t---atttt
C.Rem  ttg-GATAa gTTTCggCTGAT-tctgattgatgtaaactttgtaacttgctgagcactgttttttatttt---tttatt t-aaaattt
          *****
          *****
          ***** * **
          * ***** **
          **
  
```

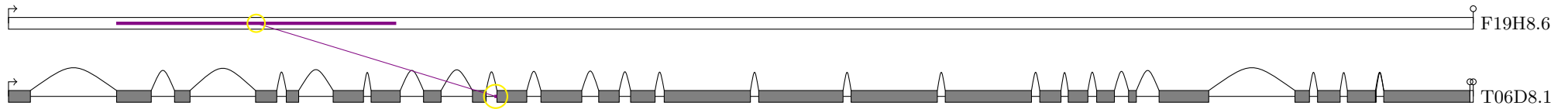
id=57547 gene=F19H8.6 name=F19H8.6 segment=chrII\_14617068\_14617135\_1 type=EN

```

C.Ele  aagaacgg taggttttaggg...105...-gccccactaaacagtaacaATTAGaaGAAATGTCAatagtccattttgcgtaatt...88...cattattgcaga ctcggcgg
C.Bri  aagaaagg tatgtgactaaa...57...cgtcgtcgctaaatagtaacATTAGaaGAAATGTCAaacagtcattttgcgtaat...103...atagcttacaga ttcggcga
C.Bre  aagaaagg tatgtcacctcc...115...cg-cgtcgctaaatagtaacaATTAGaaGAAATGTCAaacagtcattttgcgtaat...87...ttttcttcaga ttcggcaa
C.Rem  aagagagg tatgtagacat...88...ttgctcgctaaacagtaacATTAGaaGAAATGTCAaacagtcattttgcgtaat...91...tcttattgcaga ctcggcga
          **** ** ** **
          * * *****
          * *****
          * *****
  
```

id=322700 gene=F47B7.7 name=F47B7.7 segment=chrX\_3779541\_3779812\_-1 type=IN

Figure 199: CS=5.2



```

C.Ele aatga-TAA GTTTCGGCTGA-ctc-aaattgatgacacctta--atatgctgagcacttttacttttttaaaatttatt ttcttttt-----
C.Bri -ttggATAA GTTTCGGCTGA-ttcataattgatgtcaactttataacttgctgagcactaacttttatcttttaagcatt tcactattt-----
C.Bre -ttggATAA GTTTCGGCTGAA-tcc--acttgatgtcaacttat--gcttactgagcgcttttt--tgagctacaagggct tttatttt-----
C.Jap -ttggATAA GTTTCGGCTGA-ttc-tgattgatgctaatttgattatatgctgagcactttta-----tact ttttctt-----
C.Rem -ttggATAA GTTTCGGCTGA-ttc-tgattgatgtaaactttgtaacttgctgagcactgttt-----tttatt tttttattaaaatt
      **  *** ***** *  ***** * ** * ***** ** * * **

```

id=57547 gene=F19H8.6 name=F19H8.6 segment=chrII\_14617068.14617135.1 type=EN

```

C.Ele  gttttgtc ttgg-----ttaactttatgttcagcatc-cccctcatttgacattTCAGTgCGAAtGCTTGcgctcgc ttctgttt
C.Bri  attctggt gtggcacaatcggttgccctgccttggttttgatcatctcctcatttgactttTCAGCgCGAAtGCTTGTgcgcgc ttctgttt
C.Bre  aaagtttc ttgg-----ttaactctcagttttg-----cccttcatt-----TCAGCgCGAAtGCTTGTgcgcgc ttctgttt
C.Jap  gggatcct tcgg-----ttccatttttgagttggg-----gaagtttTCAGTgCGAAtGCTTGTgcgcgc ttctgttt
C.Rem  aagacact tcgg-----tttcctctcagttctgc---ctcttcatttgactttTCAGCgCGAAtGCTTGTgcgcgc ttctgttt
      **                *   ** *                ***** ***** ** ** *****

```

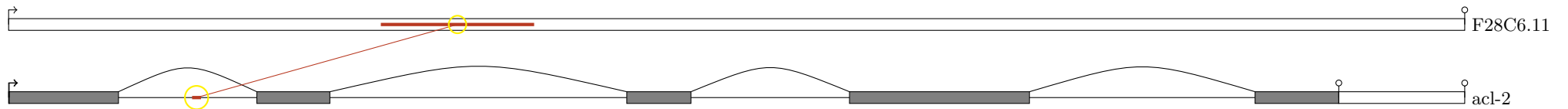
id=23026 gene=T06D8.1 name=T06D8.1 segment=chrII\_11208745.11208807.1 type=IN VIEW

Figure 200: CS=6.5









```

C.Bri cagtagtcccggacgaa-ttagaatttagcgtacgGTTTgGACATaATGGGGaaat-ggactttactctttt...67...ttagagtcgatgacgaggt
C.Bre cagtagtcccggacgaa-ttagaatttaacgtacgGTTTgGACATaATGGAGaaataaaatattgctctttt...72...tccagagtcgacgatgaggt
C.Jap tagtagtcccggacgat-taaaatctttacgtacgGTTTgGACATaATGG--agagataaatttgctctttt...62...ttcagagtcgatgacgaggt
C.Rem cagtagtcccggacgaatttaaacataacgtacgGTTTgGACATaATGGagaatagaacattactctt---.69...ttcagagtcgatgatgaggt
***** * * * * ***** * * * * *

```

id=272839 gene=F28C6.11 name=F28C6.11 segment=chrII.8602920.8603052.1 type=EN

```

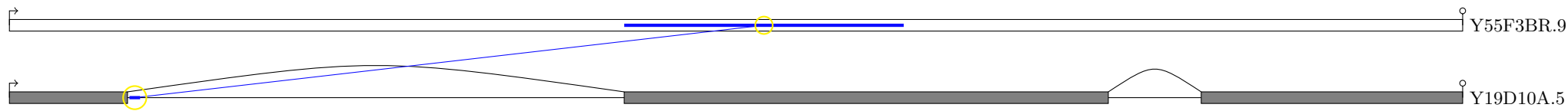
C.Bri ttgggttcaaaggtagggg...82...tcgaaaaaaaaaacgacgac--CCTCATgcATGTCgGAACag-cgtctcc--cagaaagatta....48...---aaaattcaaattccagggcg
C.Bre ttcgggtggaaggtaagcta...135...ttgttcaaaaaagc--cctcccCTTCATgcATGTCgGAACaggcgtcccaaaaaaaga---...343...---gcatgcattatttccaatcg
C.Jap ctgcagggaaggtgcattt...59...--aagacaaaaagcagcgaccc--TCATgcATGTCgGAAC-agcgtcacaaaaaacgggg--...1370...ttttgtgatt---ttccagggcg
C.Rem ttgggtggaaggtagggtt...89...-ctttgtgaagagtaggggcc---TCATgcATGTCgGAACagacgtccccaacagaaaaa---...1132...aaciaaatttttcttttaa---
* ** *** ** * * ***** * * * * *

```

id=25895 gene=T06E8.1 name=acl-2 segment=chrV.10030652.10030884.-1 type=IN

Figure 203: CS=5.8





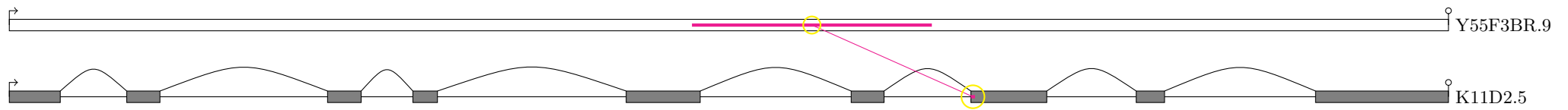
|       |          |  |          |
|-------|----------|--|----------|
| C.Ele | gtgagtga | cggctgtgatgatttccta-ttgcc <b>GTTA</b> cc <b>CGTC</b> tg <b>AGGA</b> aaaccgtgcttgatacaacttggaa--aaggctgagccg  | agcttttg |
| C.Bri | gatgtcgg | cggctgtgatgatttcctacttgccg <b>TTTA</b> cc <b>CGTC</b> tg <b>AGGA</b> aaaccgtgcttgacgattttggaaaattaggctgagcca | aattttgg |
| C.Bre | ttcccagt | tggctatgatgatttccta-ttgcc <b>GTTA</b> cc <b>CGTC</b> tg <b>AGGA</b> aaaccgtgcctgagacttttggag--ttggctgagccg   | agaaatta |
| C.Rem | gccaccgt | cggctatgatgatttccta-ttgcc <b>GTTA</b> cc <b>CGTC</b> tg <b>AGGA</b> aaaccgtgcttgagacttttggag--ttggctgagccg   | agagaata |
|       | *        | **** *   | *        |

id=174290 gene=Y55F3BR.9 name=Y55F3BR.9 segment=chrIV.867056.867133.-1 type=EN

|       |                  |  |           |
|-------|------------------|--|-----------|
| C.Ele | ga <b>TTCTGA</b> | <b>CGTAAGT</b> -tttgagaatgttcgatcactttatattacaggacaacaa:::ttcaacgttcccataataacaaaacttcttca | gattaaca  |
| C.Bri | ga <b>TTCTGA</b> | <b>CGTAAG</b> atTTTgcaatctcccggTcatcatagatc-----:t-----tTTA                                | gcttgaca  |
| C.Bre | ga <b>TTCTGA</b> | <b>CGTAAGT</b> -tttgaaaa-----:t-----gtattttcca   | ggctaaca  |
| C.Rem | ga <b>TTCTGA</b> | <b>CGTAAGT</b> -ttgagga-----:t-----ttca  | gactaaca  |
|       | *****            | ***** **   | * * * * * |

id=306016 gene=Y19D10A.5 name=Y19D10A.5 segment=chrV.2382354.2383010.1 type=IN

Figure 205: CS=6.88



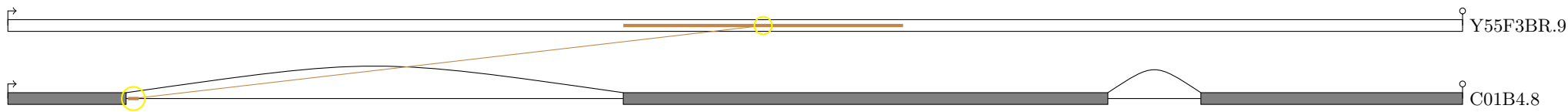
|       |          |                                 |                   |                                       |          |
|-------|----------|---------------------------------|-------------------|---------------------------------------|----------|
| C.Ele | gtgagtga | c-ggctgtgatgatttccta-ttgccgttta | CCCGTCTGAGGAAA    | accgtgcttgatacaacttgaa--aaggctgagccg  | agcttttg |
| C.Bri | gatgtcgg | c-ggctgtgatgatttcctacttgccgtt   | TACCCGTCTGAGGAAAA | ccgtgcttgacgattttggaaaattaggctgagcca  | aattttgg |
| C.Jap | gggtgtgg | caggctgtgatgatttccta-ttgccgttta | CCCGTCTGAGGAAAA   | accgtgcttgagactttttggaa--tcggctgagcca | acaacgct |
| C.Rem | gccaccgt | c-ggctatgatgatttccta-ttgccgtt   | TACCCGTCTGAGGAAAA | accgtgcttgagacttttggag--ttggctgagccg  | agagaata |
|       | *        | *                               | *                 | *****                                 | *        |

id=174290 gene=Y55F3BR.9 name=Y55F3BR.9 segment=chrIV.867056.867133.-1 type=EN

|       |          |   |             |          |
|-------|----------|---|-------------|----------|
| C.Ele | ttatcagg | taagactccgccactttttgagtctcggcga:::tttgcttaaaatcgtcggtttccaaccatttttcgcta--- | TTTTCAGA    | TGGGcgtt |
| C.Bri | ttatcagg | taa-----:tggcataagtgc-----ccatctttctc-a-                                    | TTTTTTTCAGA | TGGGTGta |
| C.Jap | ttaccagg | taaac-----agcccaacgc:::catgtcgaagtcgattgaaaacgcaatataacaccaaac              | TTTTTTgCAGA | TGGGcgtc |
| C.Rem | ttatcagg | tgagt-----:gtagtttttaaatcgt-----a-  | TTTTTCAGA   | TGGGTGtc |
|       | *** **   | *   | *           | *        |

id=11480 gene=K11D2.5 name=K11D2.5 segment=chrI.12517193.12517422.1 type=IN

Figure 206: CS=5.28



```

C.Ele  gtgagtga cggctgtgatgatttccta-ttgccGTTAaccCGTCtgAGGAaaaccgtgcttgatacaacttggaa--aaggctgagccg agcttttg
C.Bri  gatgtcgg cggctgtgatgatttcctacttgccgTTTAaccCGTCtgAGGAaaaccgtgcttgacgattttggaaaattaggctgagcca aattttgg
C.Bre  ttcccagt tggctatgatgatttccta-ttgccGTTAaccCGTCtgAGGAaaaccgtgcctgagacttttggag--ttggctgagccg agaaatta
C.Rem  gccaccgt cggctatgatgatttccta-ttgccGTTAaccCGTCtgAGGAaaaccgtgcttgagacttttggag--ttggctgagccg agagaata
      *      **** ***** ** * * * ***** *
  
```

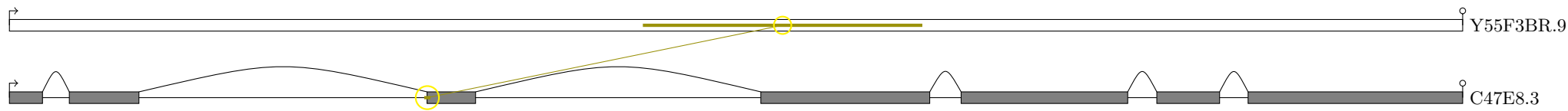
id=174290 gene=Y55F3BR.9 name=Y55F3BR.9 segment=chrIV.867056.867133.-1 type=EN

```

C.Ele  gaTTCTGA CGTAAGT-ttgagaatgttcgatcactttatattacaggaaacaa:::ttcaacgttccataataccaaaacttcttca gattaaca
C.Bri  gaTTCTGA CGTAAGattttgcaatctcccggatcatcatagatc-----:t-----ttaa gcttgaca
C.Bre  gaTTCTGA CGTAAGT-ttgaaaa-----:t-----gtattttcca ggctaaca
C.Rem  gaTTCTGA CGTAAGT--ttgagga-----:t-----ttca gactaaca
***** ***** *** * * * * *
  
```

id=77330 gene=C01B4.8 name=C01B4.8 segment=chrV.2490633.2491289.1 type=IN

Figure 207: CS=6.88



```

C.Ele  gtgagtga cggctgtgatgatttcctatt-GCCGtTTACccGTCTGAGGAAaacctgcttgatacaacttggaa--aaggctgagccg agcttttg
C.Bri  gatgtcgg cggctgtgatgatttcctactTGCCGtTTACccGTCTGaGGAAaacctgcttgacgattttgaaaattaggctgagcca aattttgg
C.Bre  ttcccagt tggctatgatgatttcctat-TGCCGtTTACccGTCTGAGGAAaacctgcctgagacttttggag--ttggctgagccg agaaatta
C.Rem  gccaccgt cggctatgatgatttcctat-TGCCGtTTACccGTCTGAGGAAaacctgcttgagacttttggag--ttggctgagccg agagaata
      *   **** *****
  
```

id=174290 gene=Y55F3BR.9 name=Y55F3BR.9 segment=chrIV.867056.867133.-1 type=EN

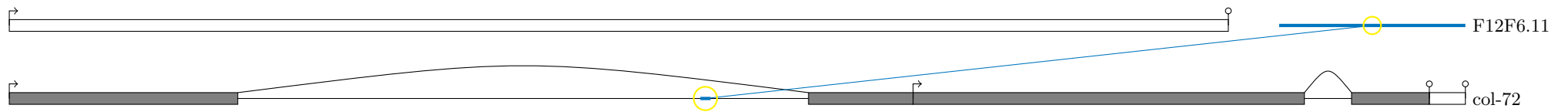
```

C.Ele  ggtttctg tctagccataaa...828...attcataat----aatccataaca-----TTCAGACGTAG--C GGCctctt
C.Bri  tgtgtcta attattcatagg...467...----taatctccgagtcattgaca-----TTCCAGACGTAG--C GGTgtgtt
C.Bre  aagtgcg  tgtagtctttaa...521...----aat-----cctctatcattttccaTTCAGACGTAGtcC GGTA--tt
C.Rem  ggtgggtg ttgatgtgagag...642...----aac-----atcatcaacatatccaTTTCAGACGTAG--C GGTgtatt
      *           **      *      **      ** ***** * ** **
  
```

id=328251 gene=C47E8.3 name=C47E8.3 segment=chrV.14680526.14681398.1 type=IN

Figure 208: CS=5.2





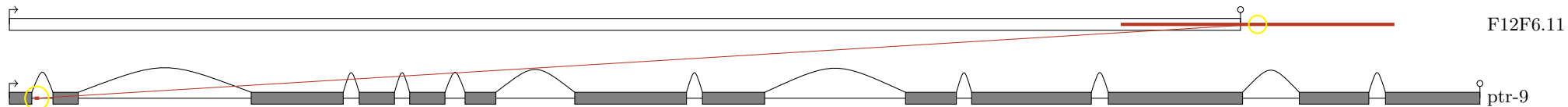
|       |          |  |         |          |
|-------|----------|--|---------|----------|
| C.Ele | ttcgattc | tcgtggcggatt...35...tgtgtcgaaacctctaaga  | AGTAC   | TGACCGGt |
| C.Bri | ttcgagc  | ccaccgaggact...35...ttgtgtcgaaacctctaaga | AGTAC   | TGACCGGt |
| C.Bre | tttcagc  | ccgcagcgggct...35...ttgtgtcgtatcctctaaga | AGTAC   | TGACCGCa |
| C.Rem | ttcgagc  | ccacggcgggct...35...ttgtgtcgaaacctctaaga | AGTAC   | TGACCGGt |
|       | ** * *   | * *** *                                  | * ***** | *****    |

id=161984 gene=F12F6.11 name=F12F6.11 segment=chrIV\_11549771\_11549842\_-1 type=EN

|       |          |                                   |                        |               |   |          |
|-------|----------|-----------------------------------|------------------------|---------------|---|----------|
| C.Ele | acaagctg | gcgaatgtcgtg...2365...---         | actttcggcctgcgtagtagat | AGTGGTTAGTACT | ccacgttgtggccgtggcga...81...cctgaatctcct  | attttgca |
| C.Bri | acagaccg | gagaatgtcgtg...102...---          | tctctcggcctgcttagtagat | AGTGGTTAGTACT | ccacgttgtggccgtggcga...747...tttgaatctgaa | atattcca |
| C.Bre | acaggctg | gagagtgtcgtg...485...ggacgcgaacac | ctgtgtgta---           | GTGGTTAGTACT  | ccacgttgtggccgtggcga...93...gtttttcaatc   | attttacc |
| C.Rem | acaagctg | gagaatgtcgtg...79...---           | gctttcggcctgcttagtagat | AGTGGTTAGTACT | ccacgttgtggccgtggcga...65...cattgtttacg   | atttcaga |
|       | *** * *  | * ** *****                        | * ** **** **           | *****         | * *                                       | ** *     |

id=327325 gene=W09G10.1 name=col-72 segment=chrII\_3521414\_3523936\_-1 type=IN

Figure 209: CS=7.12



```

C.Ele  ttcgattc tctgtg-gcggattgaagatgaaatcaacgacgctgaccggtagtgatgtgtgtcga--ACCTCtaAGAAgtAC TGAccgct
C.Bri  ttcgcagc ccacc-gcggactgaagataaaatcaacgacactgaccgatagtgatgttgtgtcga--ACCTCtaAGAAgtAC TGAccgct
C.Bre  tttgcagc ccgca-gcgggctgaagataaaatcaacgacactgaccggtagtgatgttgtgtcgtat--CCTCtAAGAAgtAC TGAccgca
C.Jap  ttcg-agc ccacgtgcgggttgaagataaaacttatcgacactgaccggtagtgatgtgTTGTGTCGAAACCTCtAAGAAgtAC TGAccgct
C.Rem  ttcgcagc ccacg-gcgggctgaagataaaatcaacgacactgaccggtagtgatgttgtgtcga--AACCTCtAAGAAgtAC TGAccgct
** * * * * * **** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=161984 gene=F12F6.11 name=F12F6.11 segment=chrIV\_11549771\_11549842\_-1 type=EN

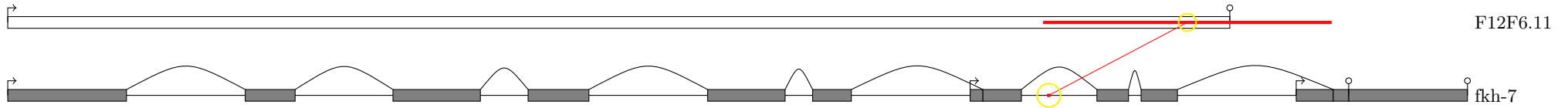
```

C.Ele  ttgtttcT CAGTTTTTcGAGGT-----cagttttacagtt-----ttgaaaagagtttgatgaag-:::::-----tgcataga-----aaatta gattaatt
C.Bri  ttgtttca CAGTTTTTcGAGGT-----aa-tgtcatgtttgaaaatttactatgt-----:::::-----tgaataa-----tcgactt- ----t
C.Bre  tcgtttca CAGTTTTTTGAGG-----ttgtattaaagttagtacaaaagatt--tt-----:::::-----tccctgac-----attc atattttc
C.Jap  ttgtttcg CAGTTTTTTGAGGTTTgTGGTgATAAaactgttgtacttca----tactatgtgtttacgagaga:::::cataataccagatgaataatTTgtcaattta aacattt
C.Rem  tcgtttcg CAGTTTTTTGAGGTT-----agttact-----gatttgtg-----:::::-----tcttgattttcagaaattg gtatattt
* **** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=144472 gene=F54G8.5 name=ptr-9 segment=chrIII\_9161450\_9161510\_-1 type=IN

Figure 210: CS=6.5



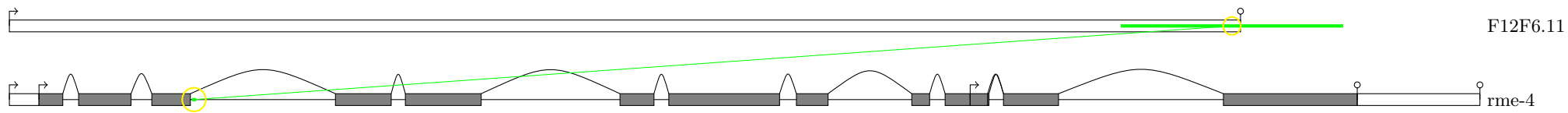
|        |          |   |
|--------|----------|---|
| C. Ele | ttcgattc | tcgtg-gcggattgaagatgaaatcaacgacgctgaccggtagtgatgtgtgt--CGAAacCTCTAAGAAGTAcTGACCgct  |
| C. Bri | ttcgagc  | ccacc-gcggactgaagataaaatcaacgacactgaccgatagtg--tgttgtgtCGAAacCTCTAAGAAGTAc tgaccgct |
| C. Bre | tttcagc  | ccgca-gcgggctgaagataaaatcaacgacactgaccggtagtg--tgttgtgtcgtatcCTCTAAGAAGTAc tgaccgca |
| C. Jap | ttc-agc  | ccacgtgcgggttgaagataaacttatcgacactgaccggtagtgatgtgtgtgtCGAAacCTCTAAGAAGTAc tgaccgct |
| C. Rem | ttcgagc  | ccacg-gcgggctgaagataaaatcaacgacactgaccggtagtg--tgttgtgtCGAAacCTCTAAGAAGTAc tGACCgct |
|        | ** * *   | * **** ***** ** * ** * **** ***** ***** ***** ** * ***** ***** *****                |

id=161984 gene=F12F6.11 name=F12F6.11 segment=chrIV\_11549771\_11549842\_-1 type=EN

|        |          |   |          |
|--------|----------|---|----------|
| C. Ele | cgatgtaa | gtttttaatttcctttttgcat---gtttatattcagggagagtgttttcaaatgtttcacacaaattgaaaacttgaatccctgatcagaaGGTTATGTTGCTTTTLAGAGTTTCGctttgatatt---agtgatagtg...170...caattcagattt | cgcagcaa |
| C. Bri | tgatgta  | gttttcgtccg--c-attgtgcat---gtttaga---agtcaaaagggtttctg-----TGCTTTTAGAGTTTCGcttttgtaat---ttagtgata...167...caatttagattt  | cgccgcat |
| C. Bre | agatgtaa | gttcagaaaaagaattgatgcatgtggtctaaa-----aagggtttctg-----TGCTTTTAGAGTTTCGcttttgtagt---ttttgt---...187...caattcagatgt   | cgcaaaca |
| C. Jap | tgacgtga | gtttcagtttttca-accaagcat---ggtttta-----ttttgc-----TGCTTTTAGAGTTTCGcttttagaaagaaagat---...164...caattcagattt   | cgcaaca  |
| C. Rem | agacgtaa | gtttctgattgttc-tctatgcat---gtttaga---a-----GGTTttTGTTGCTTTTLAGAGTTTCGcttttgattagtctctagt---...163...caattcagattt  | cgcagcat |
|        | ** * *   | *** ** * * * **** * * * ***** ***** ***** ***** * ***** ***** *****   | ***      |

id=239719 gene=F26D12.1 name=fkh-7 segment=chrIV\_5607984\_5608301\_1 type=IN VIEW

Figure 211: CS=5



F12F6.11

```

C.Ele ttcgattc tcgtg-gcggattgaagatgaatcaacgacgctgaccggtagtga--tgtgtgtcgaacACCTCtAAGAAGTAc tgaccgct
C.Bri ttcgcagc ccacc-gcggactgaagataaaatcaacgacactgaccgatagtga--tGTGTGTCgaACCTCtAAGAAGTAc tgaccgct
C.Jap ttcg-agc ccacgtgcgggttgaagataaaacttatcgacactgaccggtagtgatgtgtgtgtcgaacACCTCtAAGAAGTAc tgaccgct
C.Rem ttcgcagc ccacg-gcgggctgaagataaaatcaacgacactgaccggtagtga--tgttgtgtcgaacACCTCtAAGAAGTAc tgaccgct
**** * * **** ***** ** * * **** ***** ***** ** *****

```

id=161984 gene=F12F6.11 name=F12F6.11 segment=chrIV\_11549771\_11549842\_-1 type=EN

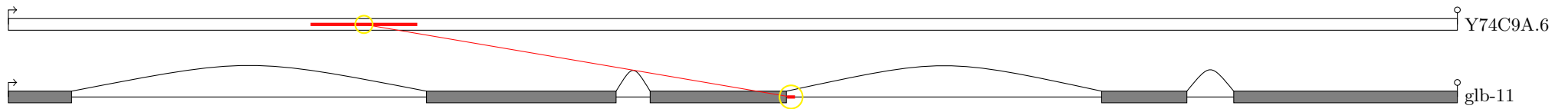
```

C.Ele gcatcTGC TTCTTGAGGT-----gagagt--gattttccatcatt...398...aaaatatgaata ttttacag-
C.Bri gcattTGC TTCTTGAGGTTGGTACGATtttttggaatcgaggaaa...457...tcaaattacata tttc-cagc
C.Jap gtataTGC TTCTTGAGGT-----atgtcttttgaagtttcttt----...548...aaaaaacacgtt tttttaag-
C.Rem gcattTGC TTCTTGAGGT-----cagtatcaaaactctca--gaaa...478...atatcagaactg gttttcag-
* * * * ***** * * * * * * * * * * * * * * * * * * * * * * *

```

id=153935 gene=F46F6.1 name=rme-4 segment=chrX\_10376704\_10377143\_-1 type=IN

Figure 212: CS=6



```

C.Ele  tgaaaatt agacagaggagttgatgagaactctaATCCATTCTCTGAgcgagaaggatggccgaagc...92...ggtctgatcctc tattttac
C.Bri  cgacgggt agacagaggagttgatGAGAACTCTAATCCATTCTCTGAgcgagaaggatggccaaagc...91...ggtctgatcctc tattaatt
C.Bre  tttcattt agacagaggagttgatgaaaactctaATCCATTCTCTGAgcgagaaggatggccgaagc...91...ggtctgatcctc tctataaa
C.Rem  gaagggtt agacagaggagttgatgagAACTCtaATCCATTCTCTGAgtgagaaggatggccgaagc...91...ggtctgatcctc tatgaaaa
* ***** *

```

id=286319 gene=Y74C9A.6 name=Y74C9A.6 segment=chrI.3747.3909\_-1 type=EN

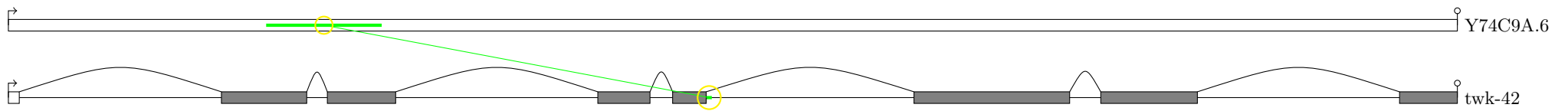
```

C.Ele  gTCAGAGA TGGGT-----aagctttatgaatttgtaat-----...407...--tgataaatTTT cagatact
C.Bri  gTCAGAGA TGGGTTAGtAGTTTTtttttaatgttgatt-----tga...710...--cctcctcttttc cagatact
C.Bre  gTCAGAGA TGGGT-----aagt-----gatattttattgataa---...514...aggtctt--ttttc cagctact
C.Rem  gTCAGAGA TGGGTGAGTT-----ggcggcgggtgattaagga...898...--gtcctcctcttc cagctact
***** ***** * ** *** **

```

id=280310 gene=C36E8.2 name=glb-11 segment=chrIII.3989856.3990299\_-1 type=IN

Figure 213: CS=5.92



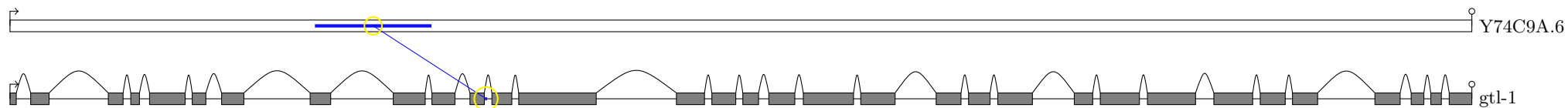
|        |          |                       |               |                 |  |          |     |
|--------|----------|-----------------------|---------------|-----------------|--|----------|-----|
| C. Ele | tgaaaatt | agacagaggagttgatgagaa | <b>CTCTaa</b> | <b>TCCATTCT</b> | ctgagcgcgagaaggatggccg...96...ggtctgaccc | tattttac |     |
| C. Bri | cgacgggt | agacagaggagttgatgagaa | <b>CTCTaa</b> | <b>TCCATTCT</b> | ctgagcgcgagaaggatggcca...95...ggtctgaccc | tattaatt |     |
| C. Bre | tttcattt | agacagaggagttgatgaaaa | <b>CTCTaa</b> | <b>TCCATTCT</b> | ctgagcgcgagaaggatggccg...95...ggtctgaccc | tctataaa |     |
| C. Rem | gaagggtt | agacagaggagttgatgagaa | <b>CTCTaa</b> | <b>TCCATTCT</b> | ctgagtgagaaggatggccg...95...ggtctgaccc   | tatgaaa  |     |
|        | *        | *****                 |               |                 |  | *****    | * * |

id=286319 gene=Y74C9A.6 name=Y74C9A.6 segment=chrI.3747.3909.-1 type=EN

|        |                 |  |          |
|--------|-----------------|--|----------|
| C. Ele | <b>cAGAGttT</b> | <b>GGAGGAG</b> gtgag-ag----ccgcttgacacct...873...acaagctccaat  | tttccagg |
| C. Bri | <b>cAGAGttT</b> | <b>GGAGGAG</b> gtgagagaatttcttattt-----...1054...aaaaaatgttca  | tttccagg |
| C. Bre | <b>cAGAGttT</b> | <b>GGAGGAG</b> gtgagaagaagattttattg-----...639...ggaaactaagtt  | tttccagg |
| C. Rem | <b>cAGAGttT</b> | <b>GGAGGAG</b> gtgagaaa-----tttattgacacc...1452...acgcgtcattaa | tttccagg |
|        | *****           | *****  | *****    |

id=323407 gene=W06D12.2 name=twk-42 segment=chrV.17728179.17729090.-1 type=IN

Figure 214: CS=5.28



```

C.Bri cgacgggtagacAGAGgAGTTGAtGAGAACTCtaATCCATtcTCTGAGcGAGAaggatggccaagcgggttc...85...ggtctgatcctctattaatt
C.Bre tttcatttagacagaggagttgatgaaaactctaATCCATtcTCTGAGcGAGAaggatggccgaagcgggctc...85...ggtctgatcctctataaaa
C.Jap atcacgtcagaCAGAggAGTTgaTGAGAACTCtaATCCATtcTCTGAGcgagaaggatggcggacgcg-----89...ggtctgatcctctattaatt
C.Rem gaagggttagacagaggagttgatgagaactctaATCCATtcTCTGAGtGAGAaggatggccgaagcgggctc...85...ggtctgatcctctatgaaaa
***** * **

```

id=286319 gene=Y74C9A.6 name=Y74C9A.6 segment=chrI.3747.3909\_-1 type=EN

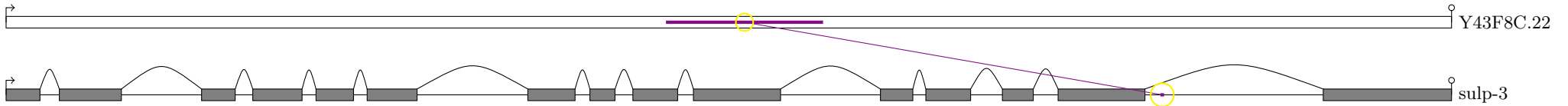
```

C.Bri ggTTTCTCAGAATGGGTGAGTTTTttTTAGTTaTTTT-----atgctt----tcagtt--tcaatttatgtttcttta---
C.Bre tgTTTCTCAGAATGGGT-----aatttctcataaaaagtttatgaatgcaa-gtatttaattt
C.Jap cgtgtCTCAGAATGGGTGAGTTTTGgAGTTTTTggataactaaataattagaaaacaatt--taaa---aaaattgtagg---
C.Rem tgTTTCTCAGAATGGGT-----atTTTTgttatacctttaattatttcaacacgttttat--
** ***** ** * ** * *

```

id=162767 gene=C05C12.3 name=gtl-1 segment=chrIV.11256440.11256486\_-1 type=IN

Figure 215: CS=6.44



|       |          |   |                   |                 |                              |        |              |          |
|-------|----------|---|-------------------|-----------------|------------------------------|--------|--------------|----------|
| C.Ele | ttcgggt  | tcgattcccaccacggcaacaaattccaattgtgtgtaacatt--caatgcaa | TTGAGCCga         | CGCCgTGGGA      | aatcact---ttcgtggaaccat----- | ..35.. | ttgcacgtggtt | tacaattt |
| C.Bri | ttaggggt | tcgagttcccaccacgaacaaattccaatcgtgtgatcttctcgcaacacga  | TTGAGCCga         | CGCCtTGGGA      | aagcattgtcttt---gaccatt----- | ..36.. | ttgcacatggtc | cacacttt |
| C.Bre | tgcggggt | tcgatcccaccatggcaacaaattccaatcgtgtgttcac---caatgca    | TTGAGCCga         | CGCCaTGGGA      | aatcattgtattc---ggctatt----- | ..35.. | ttgcacgtagtc | tacaattt |
| C.Jap | tcacgagt | togattcccaccatggcaacaaattccagtcgctgttt---tgtcaacgca   | TTGAGCCga         | CGCCaTGGGA      | aatca-----aatgccatttgatc...  | ..30.. | ttgcacgtggtc | cacagttg |
| C.Rem | cgccagtc | tcaatcc---cccatggcaacaaattccaatcgtgtgattc-tagcaacgcga | TTGAGCCga         | CGCCaTGGGAaAGTG | ---tattccaacggctattagat-...  | ..34.. | ttgcacgtagtc | gacatttt |
|       | ** ** *  | **** ***** * * **                                     | *** * ***** ***** |                 | * **                         |        | ***** * **   | ** **    |

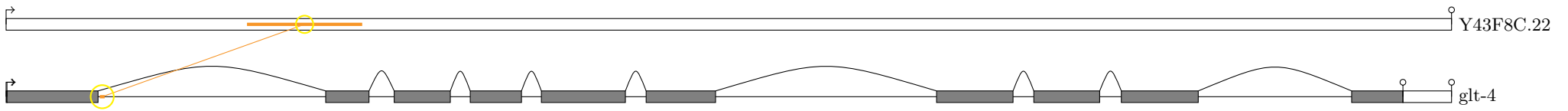
id=187793 gene=Y43F8C.22 name=Y43F8C.22 segment=chrV.19643020.19643157.-1 type=EN

|       |          |   |                  |                         |         |               |          |
|-------|----------|---|------------------|-------------------------|---------|---------------|----------|
| C.Ele | ggagcaac | atatttcgtaagtataaat-----ttaaagaaat-----gaaaaagtttcgc          | TCCCGGGTGGGCTCGA | accaccaacctttcggttaa... | ..551.. | accaactatatt  | attccaga |
| C.Bri | agaacaaa | atatttcgtgagttt-----acaaaaaaaa-----cmetaaaagatttcgc           | TCCCGGGTGGGCTCGA | accaccaacctttcggttaa... | ..354.. | cataaatgggta  | atttcagg |
| C.Bre | agagcaaa | acataticgtaagt-----agaaaaaaaa-----acmetaaaagatttcgc           | TCCCGGGTGGGCTCGA | accaccaacctttcggttaa... | ..307.. | atccgaaacttt  | tttcaga  |
| C.Jap | cgaacaac | ttgtttcgtgagtttttgaaaaatggttctcaaaaaaaaaagtttccmetaaaagtttcgc | TCCCGGGTGGGCTCGA | accaccaacctttcggttaa... | ..367.. | aaaaaaaaacttt | atttcaga |
| C.Rem | cgagcaga | ctatttcgtgagttt-----ctaaagaaaa-----acmetaaaagatttcgc          | TCCCGGGTGGGCTCGA | accaccaacctttcggttaa... | ..287.. | taaaattttat   | aattcaga |
|       | ** **    | * **** **   | *** **           | **** *****              |         |               | * **     |

id=37008 gene=F41D9.5 name=sulp-3 segment=chrX.8403910.8404551.-1 type=IN

Figure 216: CS=6.65





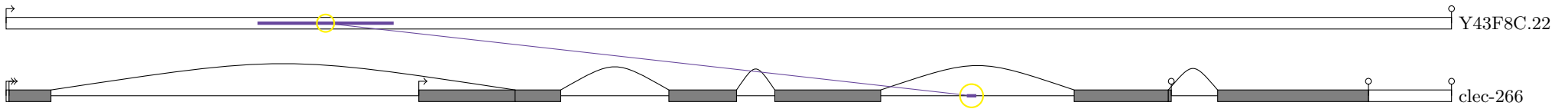
|       |          |                |                |               |                |              |              |          |
|-------|----------|----------------|----------------|---------------|----------------|--------------|--------------|----------|
| C.Ele | ttcgggt  | tcgattcccaccac | GGCAACAAATTC   | caattgtgtg    | ----taacattcaa | ...79...     | ttgcacgtggt  | tacaattt |
| C.Bre | tgcgggt  | tcgatcccacca   | TGGCAACAAATTC  | caatcgtgtgtt  | caccaatg       | ----...77... | ttgcacgtagtc | tacaattt |
| C.Jap | tcacgagt | tcgattcccacca  | TGGCAACAAATTC  | cagtcgcgtgtt  | ttgtcaac       | ----...73... | ttgcacgtggtc | cacagttg |
| C.Rem | cggccagt | tcaatcccc      | ATGGCAACAAATTC | caatcgtgtgatt | ttagca         | ----...84... | ttgcacgtagtc | gacatttt |
|       | **       | ** ** **       | * *****        | * **          |                |              | ***** **     | *** **   |

id=187793 gene=Y43F8C.22 name=Y43F8C.22 segment=chrV\_19643020\_19643157\_-1 type=EN

|       |          |            |                         |              |              |          |
|-------|----------|------------|-------------------------|--------------|--------------|----------|
| C.Ele | atgtGAGT | TTGTTGCC   | --acaaaa-taattccgtagaca | ...649...    | tttcagtacgag | tttgcct  |
| C.Bre | atgtGAGT | TTGTTGCCA  | attggaa-gaatgcatagac    | ---...713... | ttttagcacgtc | tttggctt |
| C.Jap | atgtGAGT | TTGTTGCCA  | -gaggaa-t-gcgctgtagacac | ...4789...   | tttcagtacaag | tcttgcgt |
| C.Rem | atgtGAGT | TTGTTGCCAT | tcgaacaaatgccatagac     | ---...302... | tttcagtacgag | tttggctt |
|       | *****    | *****      | **                      | *****        | *** ** **    | * * * *  |

id=92202 gene=T22E5.2 name=glT-4 segment=chrX\_6403593\_6404281.1 type=IN

Figure 217: CS=5.04



```

C.Ele  ttccgggt tcgattcccaccacgGCAACAAATCCAAATGTTGTGTTaacat-t--caatgcaattgagc---.68...ttgcacgtggtt tacaattt
C.Bri  ttaggggt tcgagtcccaccacagGCAACAAATCCAAATCGTGTG-atcttctcgcaacacgattg----.72...ttgcacatgggtc cacacttt
C.Bre  tgcgggggt tcgatccccaccatgGCAACAAATCCAAATCGTGTGTT---t-caccaatgcgattgagccg..66...ttgcacgtagtc tacaattt
C.Jap  tcacgagt tcgattcccaccatgGCAACAAATCCAGTGCCTGTGTT---tt-tgtcaacgcgattgagcc-.62...ttgcacgtggtc cacagttg
C.Rem  cggccagt tcaatcc---cccatgGCAACAAATCCAAATCGTGTG-atttc-tagcaacgcgattga----.74...ttgcacgtagtc gacatttt
      ** * * * **** ***** * * * ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=187793 gene=Y43F8C.22 name=Y43F8C.22 segment=chrV.19643020.19643157.-1 type=EN

```

C.Ele  cacaggat gaatgggtaagaaaacgaacaaaa---agggcgcgaggggcaggagagaagc----ggactgt----gacaacgccgctccgtcaccac
C.Bri  cacaggat gaatgggtaagga-a-aaggaatatttttgggtgggagaggaacaaaa-----agactgtgagg-gaga-----gctccaaga---
C.Bre  ctcaggat gaatgggtaagaaaa-tgggaaga---ggggagaaaaagaaac-----tgactgtgacgggacg-----ccagag---
C.Jap  cgcaggat gaatgggtaaggaca-aagggaga---ggggggggggagg-----ggactgt--gg-gaca-----tctct-----
C.Rem  cccaggac gaatgggtaagaaaa-gaacaaaa---agggtcaagaggaaaaaaaaagacaaaacggactgtgaagcgaga-----gctccacca---
      * ***** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

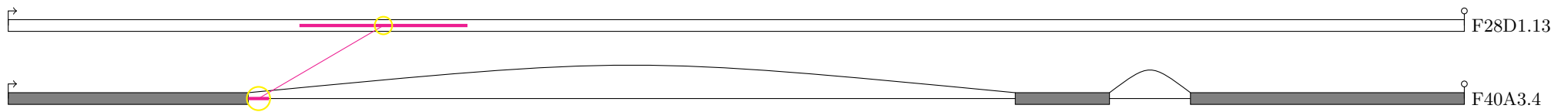
```

C.Ele  tgccacggcgaaaagccaaccACATATGTTGGAATTTGTTGCGaatagatgtcgcgagttgg-----...108...ttaataaat-caa tttcagga
C.Bri  -----aaaaccagactcaCATATGTTGGAATTTGTTGCGaatggatgttgcgagttgg-----...159...gaaagaaatgaaa ttcgaat-
C.Bre  -----aggaaccaaccACATATGTTGGAATTTGTTGCGaatgaatgtcgcgagttgc-----...210...gagaccaatatat ttacagg-
C.Jap  -----ACATGTTGTTGGAATTTGTTGCG-----aatgttgccttccaatgcat...46...-aaaaaaaaagtgt ttatagga
C.Rem  -----agaaaccgacccaCATATGTTGGAATTTGTTGCGaatgaatgtcgcgagttgg-----...172...-acaaaatgaaa ttttagga
      **** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=16571 gene=C25B8.4 name=clec-266 segment=chrX.6617917.6618179.-1 type=IN

Figure 218: CS=5.4



```

C.Ele tgaataac tcaatctatac gaggtccAGAGTACCTctGAGAat atgtatctcttcggtgct...64...cacctccgttc tgacaaaa
C.Bre aaaattaa cgtgttcgtgcgaggtccAGAGTACCTttGAGAat aggtatcttcttggtgct...64...cacctccgttc gaacactg
C.Jap catattat gttttgtgtacgaggtccAGAGTACCTttGAGAat aagtatcttcttggtgct...63...cacctctgttc tgacaatt
C.Rem ttgtaaac atacataaaacgaggtccAGAGTACCTttGAGAat aagtatcttcttggtgct...64...cacctccgttc tgacaatt
*          *****

```

id=121743 gene=F28D1.13 name=F28D1.13 segment=chrIV\_12390502\_12390631\_-1 type=EN

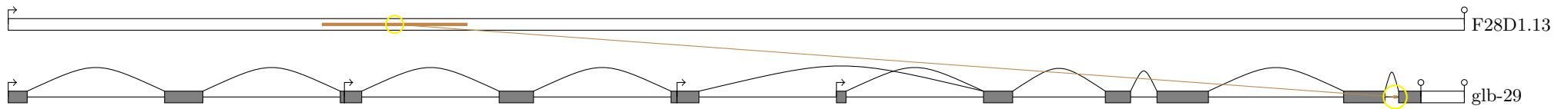
```

C.Ele tCTTTTAG GTATTCTttttgctgacggttagtcaa...482...ttttttttcag gaataatc
C.Bre tCTTTTAG GTATTCTttttgctgacggttagtctt...141...gccgtgttacag gaataatc
C.Jap tCTTTTAG GTATTCTttttgctgacggttagtatt...253...ccttttttacag gaatcatt
C.Rem tCTTTTAG GTATTCTttttgctgacggttagtctt...119...tctactttccag gaataatc
*****

```

id=269455 gene=F40A3.4 name=F40A3.4 segment=chrV\_7875900\_7876420\_1 type=IN

Figure 219: CS=5.64



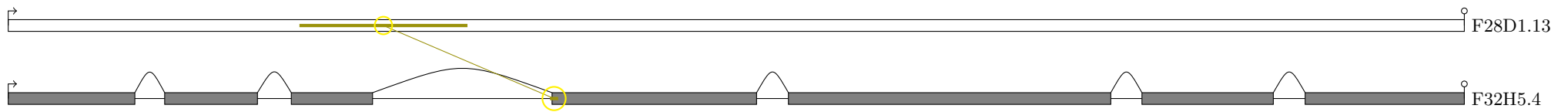
|       |                    |                          |                                |                           |                         |              |              |          |
|-------|--------------------|--------------------------|--------------------------------|---------------------------|-------------------------|--------------|--------------|----------|
| C.Ele | -----tgaataac      | tcaatctatacagagtcca----- | GAGTCACCTctGAGAATat--          | gtatctcttcggtgctag-----   | ...62...                | cacctccgtttc | tgacaaaa     |          |
| C.Bre | -----              | aaaattaaCGTGTtCGTGCga    | GGTCcaGAGTCACCTttGAGAat        | AGGTAT--                  | cttcttggtgctaggatagc... | 56...        | cacctccgtttc | gaacactg |
| C.Jap | catattatgttttgt--- | -----gtacga-----         | GGTCcaGAGTCACCTttGAGA--        | ataagtatctctttggtgct----- | ...63...                | cacctctgtttc | tgacaatt     |          |
| C.Rem | -----ttgtaaac      | atacataaaacga-----       | GGTCcaGAGTCACCTttGAGAATAAGTA-- | tctttttggtgctaggataa-...  | 57...                   | cacctccgtttc | tgacaatt     |          |
|       |                    | *                        | *****                          | **** *                    | ** * *****              | *****        | ****         | ***      |

id=121743 gene=F28D1.13 name=F28D1.13 segment=chrIV\_12390502\_12390631\_-1 type=EN

|       |  |                            |               |                 |                   |                   |          |           |
|-------|--|----------------------------|---------------|-----------------|-------------------|-------------------|----------|-----------|
| C.Ele | -----cattttca                          | attccaattaa---             | tttttcgaca--- | ATTTTCAGGTcg    | GATTCgacagaatgtca | cgtataaa          |          |           |
| C.Bre | tattataaactacttctataatgcctatgcttttttga | agttcaatt---               | taacacaatt    | ATATTTTTCAGGTtg | GATTCGATCGCATGACA | CGgataaa          |          |           |
| C.Jap | -----atcaatta                          | actttaattaccctttctttcaa--- | -----         | TTTCAGGTgg      | GATTTGATCgaatgaca | cgaataaa          |          |           |
| C.Rem | -----tcttttta                          | atttctatt---               | tgttt--       | TATTTt          | ATTTTCcAGGTcg     | GATTCGATCgcatgaca | aggataaa |           |
|       |  | **                         | **            | ***             | *                 | ** *****          | *****    | ** * ** * |

id=200196 gene=Y17G7B.6 name=glb-29 segment=chrII\_12023473\_12023522\_1 type=IN

Figure 220: CS=5.8



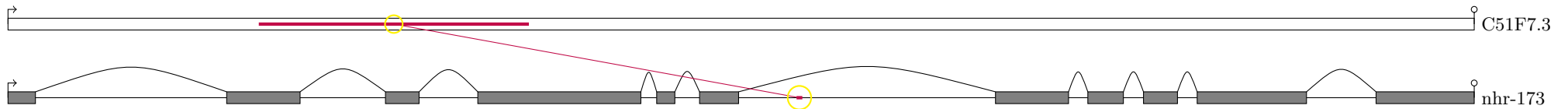
|       |                   |                     |                  |                      |                |              |          |
|-------|-------------------|---------------------|------------------|----------------------|----------------|--------------|----------|
| C.Ele | -----tgaataac     | tcaatctatacagaggtcc | AGAGtcACCTctGAGA | atatgtatctcttcggtgct | -----..64...   | cacctccgtttc | tgacaaaa |
| C.Bre | -----aaaattaa     | cgtgttcgtgaggtcc    | AGAGtCACCTttGAGA | ATAGGtatcttcttggtgct | taggat...59... | cacctccgtttc | gaacactg |
| C.Jap | -----catattat     | gtttgtgtacagaggtcc  | AGAGtcACCTttGAGA | ataagtatctctttggtgct | -----..63...   | cacctcgtttc  | tgacaatt |
| C.Rem | ttgtaaacatacataaa | -----acgaGGTC       | AGAGTcACCTttGAGA | ataagtatcttttggtgct  | -----..64...   | cacctccgtttc | tgacaatt |
|       | ** *              | *****               | *****            | *****                | * *****        | *****        | ***      |

id=121743 gene=F28D1.13 name=F28D1.13 segment=chrIV\_12390502\_12390631\_-1 type=EN

|       |          |                                  |   |               |    |          |
|-------|----------|----------------------------------|---|---------------|----|----------|
| C.Ele | aaggtagg | caacaattgagagttaaaaatggaacctggtg | :::::aaacaattttaattgaaattcagaaatattaacccaag | TTCAGGTtCT    | CT | ccgtgt   |
| C.Bre | -aggtagg | tcaggagttgaatactcaaaatgactgaaaa  | :::::aaacaaattcaagttattcatatgctcaatct       | TTGTTCAGGTGCT | CT | ctgtgt   |
| C.Jap | aaggtag- | -----acgaataacaagcgaac           | -----:::-----                               | TTCAGGTtCT    | CT | ccgtgt   |
| C.Rem | aaggtagg | tcagaaat-ataaatgtaatggaacaagga   | :::::-caataatt---ttgaacactgaatgattac        | TTCAGGTA      | CT | cGGTt    |
|       | *****    | ** * **                          |   | *****         | ** | *** ** * |

id=60204 gene=F32H5.4 name=F32H5.4 segment=chrV\_13361729\_13361993\_1 type=IN

Figure 221: CS=6.56



```

C.Ele  ataagatc tatgaTGAGacTTTCaCGACggtcttccgatgtaata-catacctgtggatatctttacgtgaagctgagatccttt tttccaa
C.Bri  attagatc gatgaTGAGacTTTCaCGACggtcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccct ttttcaa
C.Bre  actagatc gatgaTGAGacTTTCaCGACggtcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccat ttttcaac
C.Rem  tctagatc gatgaTGAGacTTTCaCGACggtcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccat ttttaatg
      *****

```

id=9130 gene=C51F7.3 name=C51F7.3 segment=chrV.12303689.12303764.1 type=EN

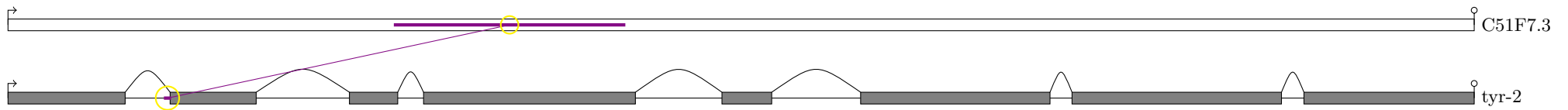
```

C.Ele  aggtatga gaaagtactgc...110...gtca---tcgttggcgggggggGTCGaGAAGAAGCTCAaatatttgggtgggggaagc...886...tttagttaaca gtgcttcc
C.Bri  aggtaaaa acaaacggaag...91...gccagacgtcgtctcgggg---GTCGaGAAGAAGCTCAaacattggttgaatggagga...121...tttcagatggtg gtcccaac
C.Bre  aggtatag gggactttttcg...93...gccagacgccgtctcgggg---GTCGaGAAGAAGCTCAaatattggaacaaggagaa...160...tttcagatgatt gtcccaac
C.Rem  aggtacgg ggaaccaaaac...92...gccagacgccgtccgggga---GTCGaGAAGAAGCTCAaatattggtagaagagataa...109...tttcagatggtt gtgccgac
      *****

```

id=120756 gene=C56E10.1 name=nhr-173 segment=chrX.6657401.6658476.1 type=IN

Figure 222: CS=5.36



```

C.Ele  ataagatc tatgatgagact TTCACGACGGTCT tccgatgtaata-catacctgtggatatctttacgtgaagctgagatccttt tttccaaa
C.Bri  attagatc gatgatgagact TTCACGACGGTCT tccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccct ttttctaa
C.Bre  actagatc gatgaTGAGAct TTCACGACGGTCT tccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccac ttttcaac
C.Rem  tctagatc gatgaTGAGAct TTCACGACGGTCT tccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccac ttttaatg
*****

```

id=9130 gene=C51F7.3 name=C51F7.3 segment=chrV\_12303689\_12303764\_1 type=EN

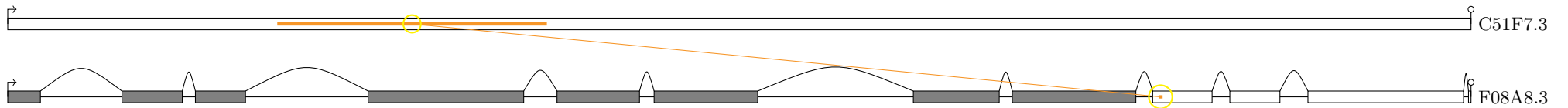
```

C.Ele  ataactaa ttgttaaatgaa...41...caaaaatagaacac-----atttccAGATCCGTCGaaTGGAccttg cgactcgt
C.Bri  atctctat ctttttttctg...75...---tagtaagaaatc--aatcttccAGATCGTCGtaTGGAccttg ccaccgc
C.Bre  ataacatg cctttcaattag...194...---agtcca-atctaaactttccAGATCGTCGtaTGGATCTG ctactcgt
C.Rem  ttcaaaaa ttgttgaatgg...73...---attagaacatccaaactttc-AGATCGTCGaaTGGATCTG ctacgcgc
*      **                * * * *                *** ** * ** * ** * ** * ** * ** *

```

id=277281 gene=K08E3.1 name=tyr-2 segment=chrIII\_13744366\_13744459\_1 type=IN

Figure 223: CS=5.2



```

C.Ele  ataagatc  tatgaTGAGAcTTTCaCGACGgtcttccgatgtaata-cataacctgtggatatctttacgtgaagctgagatccttt  tttccaaa
C.Bri  attagatc  gatgatGAGAcTTTCaCGACGGTcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccct  ttttctaa
C.Bre  actagatc  gATGAtGAGAcTTTCACGACGGTcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccat  ttttcaac
C.Rem  tctagatc  gatgatGAGAcTTTCACGACGGTcttccgatgaaatatcaaagctgtggatatctttacgtgaagctgagatcccat  ttttaatg
****  *****

```

id=9130 gene=C51F7.3 name=C51F7.3 segment=chrV.12303689.12303764.1 type=EN

```

C.Ele  gttccagc  tcgcccgcggCGTCGaGAAATCTCAgaagctgtctcaaaaattcc---.133...catatctatcag  taagccat
C.Bri  gtttcagt  tcgcccAACGCCGTCGaGAAATCTCtgaagcaatttcgaaaatcc---.134...catctttatcag  tgagctct
C.Bre  gtttcagc  tcgcccgtcGTCGTCGTGAAATCTCTCATgccgtctccgatatccctga..130...catctttatcag  tgggtttc
C.Rem  tttccagt  tcgcccgccGCCGTCGTGAAATCTCcgactgcgtttcccgatatcc---.134...cacttgcacag  tgagtagt
** **  ***** ** ***** ***** *  * **  ** *  ** * ** *

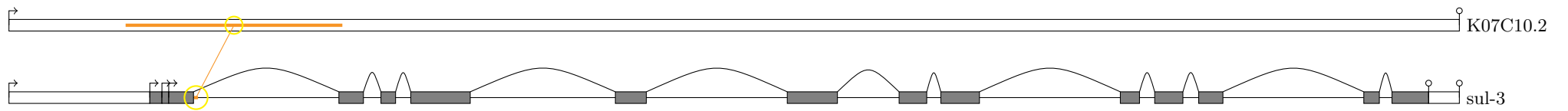
```

id=46580 gene=F08A8.3 name=F08A8.3 segment=chrI.12951297.12951487.1 type=E3

Figure 224: CS=7.32







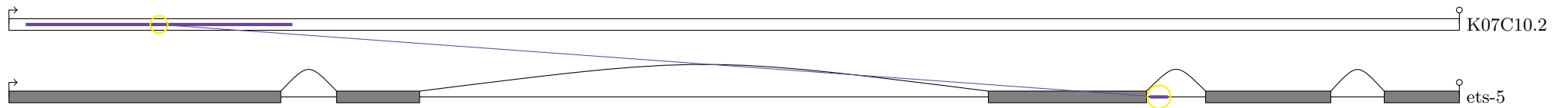
|       |          |               |  |           |
|-------|----------|---------------|--|-----------|
| C.Ele | gactaagG | CGTACTATTTTCT | tttcagcagaccgaggccct...41...atggaagtggga | gcgagggtg |
| C.Bri | gactaagG | CGTACTATTTTCT | tttcagcggaccgaaaccct...41...ctgtcgcggcgg | ccaagggtg |
| C.Bre | gactaagG | CGTACTATTTTCT | tttcagcagaccgaggccct...41...acgaaacggcgg | cagagggtg |
| C.Rem | gactaagG | CGTACTATTTTCT | tttcagcggaccgaaaccct...40...agagaagaagag | gcgagggtg |
|       | *****    | *****         | *****                                    | * **      |

id=283360 gene=K07C10.2 name=K07C10.2 segment=chrII\_11167158.11167244.1 type=EN

|       |          |           |   |          |
|-------|----------|-----------|---|----------|
| C.Ele | ttGGAAGG | ATAGcACGT | aagtatttaa-----caatgaagca...1143...----attaaaagtgca | tttaaagg |
| C.Bri | ttGGAAGG | ATAGcACGT | aagtgggcagaaacagttaga-----...861...----aacaaaaatatt | tttcaga  |
| C.Bre | ttGGAAGG | ATAGcACGT | aagtataaaaa-----aaaagaaatc...678...acttgcgaaa----   | tttcaga  |
| C.Rem | ctGGAAGG | ATAGcACGT | aagtgagaaattggtctaaa-----...336...--ctaacaagacaa--  | tttcaga  |
|       | **** *   | *****     | * * *   | *** **   |

id=146414 gene=C54D2.4 name=sul-3 segment=chrX\_7832646.7833829.-1 type=IN

Figure 226: CS=6.6



```

C.Bri  gACTAAgGCGTACtATTTtcttttcagcggaccgaaa...45...-ctgtcgcggcggccaaggtg
C.Bre  gACTAAgGCGTACtATTTtcttttcagcagaccgagg...45...-acgaaacggcggccgaggtg
C.Jap  gACTAAgGCGTACtATTTtcttttcagcagaccgagg...45...-cagcacaccacacctaggtc
C.Rem  gACTAAgGCGTACtATTTtcttttcagcggaccgaaa...44...agagaagaagaggcgagggt-
*****
          *      *   **

```

id=283360 gene=K07C10.2 name=K07C10.2 segment=chrII\_11167158\_11167244\_1 type=EN

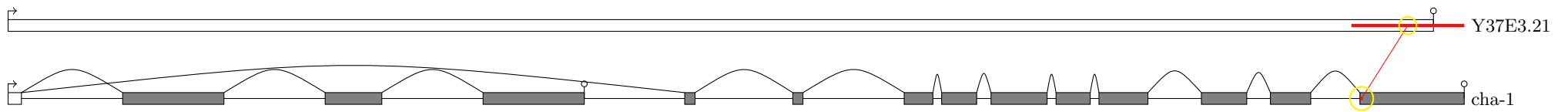
```

C.Bri  cacGAATcGTACGcGTGGTTtttctaattctaaattttct---...45...tttcagtttcagatattctc
C.Bre  cacGAATcGTACGcGTGGTTttttttacattaaattcaat---...50...gaattcttgcagaaatcttg
C.Jap  ttcGAATcGTACGcGTGGTTttcattttgtcttattttct---...290...tttttcttcagaagtcttc
C.Rem  tacGAATcGTACGcGTGGTT---ttatttttgacttttttgg...35...ttttagtttcagagattctt
*****
          *      *   *

```

id=273763 gene=C42D8.4 name=ets-5 segment=chrX\_5079971\_5080022\_-1 type=IN

Figure 227: CS=40



```

C.Ele  gaaattat cgcctcctatct...91...atctcgacaaatgtcatcctCTGGGTTTCGAGAcAAT TAAATcta
C.Bri  gcgaattt tc-ctcctatctt...91...atctcgacaaatgtcatcctCTGGGTTTCGAGAcatt caaaatta
C.Bre  ttatattt ttgctcctatct...91...atttcgacaaatgtcatcctCTGGGTTTCGAGAcatt aaaaacta
C.Rem  gtaaaaat  ttgctcctatct...91...atttcgacaaatgtcatcctCTGGGTTTCGAGAcatt caatatta
      *      ***** ** ***** ***** ** **

```

id=66306 gene=Y37E3.21 name=Y37E3.21 segment=chrI\_2070259.2070397\_-1 type=EN

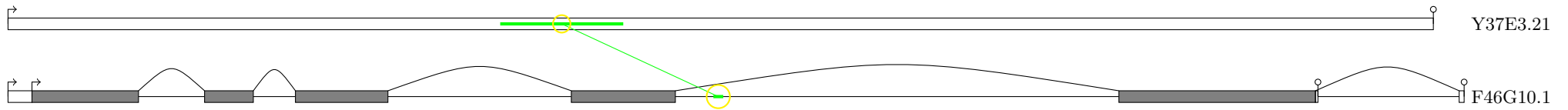
```

C.Ele  cgttggag gtaagaaaaacggaacacttagcctaagccta:::::atcggtcagactccgctatgtcttggcatcgccaataaATTaaAGTTTTTCaG AACaTCAg
C.Bri  cccttgag gtgggagatttgaaac-----:ctt-----TTTCaG AACaTCAg
C.Bre  cattggag gtgaatgagataaaa-----:-----TTTCaG AACaTCAg
C.Rem  cactagag gtaataaaca-----:-----tatg-----taa-----TTTCaG AACaTCAg
* * ** ** * ** ** **

```

id=102251 gene=ZC416.8 name=cha-1 segment=chrIV\_3614406.3614648\_-1 type=IN

Figure 228: CS=6.28



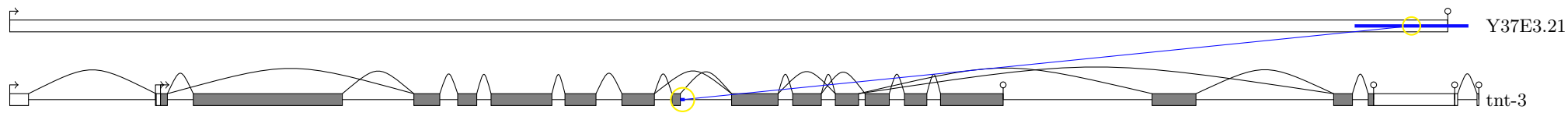
|       |           |   |             |            |                     |                            |                            |                            |          |
|-------|-----------|---|-------------|------------|---------------------|----------------------------|----------------------------|----------------------------|----------|
| C.Ele | gaaattat  | ccgctcctatccttggcgcttccattggtgaat       | ATGGC       | GTGTATGTTA | AGGAG               | agatagtagtgccttttgg        | -----c...53...gttcgagacaat | taaatcta                   |          |
| C.Bri | gcgaattt  | tc-ctcctatccttggcgcttccactgggtaatgtggc  | TGTGTATGTTA | AGGAGAAAA  | agTAGT              | gtcttctggactttcggatc       | ...44...gttcgagacatt       | caaaatta                   |          |
| C.Bre | ttatattt  | ttgctcctatccttggcgcttcc                 | ATTGGTga    | ATATGgc    | TGTGTATGTTA         | AGGAG                      | gaaaagtagtgcctttaga        | -----c...53...gttcgagacaat | aaaaacta |
| C.Rem | gtaaaaaat | ttgctcctatccttggcgcttccattggtgaatatggct | TGTGTATGTTA | AGGAG      | caaaagtagtgcctgcggg | -----c...53...gttcgagacaat | caatatta                   |                            |          |
|       | *         | *****                                   | **          | *****      | *****               | *                          | *****                      | **                         |          |

id=66306 gene=Y37E3.21 name=Y37E3.21 segment=chrI\_2070259\_2070397\_-1 type=EN

|       |          |  |                 |                               |                       |            |        |              |               |              |             |                                 |                       |         |     |       |                       |         |
|-------|----------|--|-----------------|-------------------------------|-----------------------|------------|--------|--------------|---------------|--------------|-------------|---------------------------------|-----------------------|---------|-----|-------|-----------------------|---------|
| C.Ele | tgttagca | cagctcaaagtaggtgt                        | -----           | ttcatgtttaattcatcgc           | -----                 | CTTCTTAACc | ATGCGT | -----        | tGTCAT        | -----        | tgataagca-- | cagttgcttgt...446...aacttccttat | tttttcca              |         |     |       |                       |         |
| C.Bri | tcttgtcg | cagcttaaggtaaggtgt                       | -caccacccaggttt | -----                         | ttcagtttccattgtttgttg | GTTGa      | TTTTCa | aa           | TTCTt         | TAACc        | ATGCGTA     | -----                           | acggttagagctgataa     | -----   | caa | ----- | ...176...aaaaatattagc | tttttca |
| C.Bre | tgttggca | cagcttagagtgaggtgt                       | -----           | ttcaatttttcatcatttttggtttctca | -----                 | TTTCTTAACc | ATGCGT | ACGCTGACTGAT | aa            | caaatgataaga | aaccaa      | -----                           | ...169...ttttgcagttt  | tttttga |     |       |                       |         |
| C.Rem | tgttggca | cagcttagggtgagtgatcgttttagttcattgttagttg | ttc             | ttatttctta                    | -----                 | TTTCTTAACc | ATGCGT | -----        | ttacaactgataa | -----        | caactga     | -----                           | ...168...caaaaaatgttt | tttttga |     |       |                       |         |
|       | * ** *   | *****                                    | **              | ****                          | **                    | *          | *****  | *            | *****         | **           | *****       | **                              | *****                 | **      |     |       |                       |         |

id=628 gene=F46G10.1 name=F46G10.1 segment=chrX\_13310399\_13310935\_-1 type=IN

Figure 229: CS=6.32



```

C.Ele  gaaattat cgcctcctatct-...90...catctcgacaaatgtcatccTCTGGGTTCGAGacaat taaatcta
C.Bri  gcgaatth tc-ctcctatctt...90...catctcgacaaatgtcatccTCTGGGTTCGAGacatt caaaatta
C.Bre  ttatattt ttgctcctatct-...90...aatttcgacaaatgtcatccTCTGGGTTCGAGacaat aaaaacta
C.Rem  gtaaaaat  ttgctcctatct-...90...aatttcgacaaatgtcatccTCTGGGTTCGAGacaat caatatta
      *      ***** ** ***** ***** ** **

```

id=66306 gene=Y37E3.21 name=Y37E3.21 segment=chrI\_2070259\_2070397\_-1 type=EN

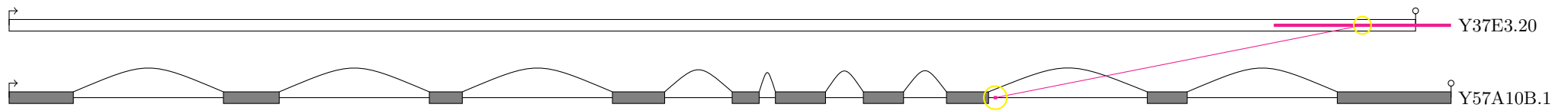
```

C.Ele  cTCGaaaA CCctCAGGtacctcagacaagcacccca...132...cacaatttgttt ttttcagg
C.Bri  cTCGaaaA CCatCAGGtatctgataatggttgctaa...123...aatatthtttcta ttgctagg
C.Bre  cTCGaaaA CCcaCAGGtaccatataacggtgtcgac...183...attcattgcct ttttcagg
C.Rem  cTCGaaaA CCatCAGGtaccaattaacggtggaagc...168...cctaacgaattt cacttcag
      ***** ** ***** * * *

```

id=118640 gene=C14F5.3 name=tnt-3 segment=chrX\_7940577\_7940748\_-1 type=IN

Figure 230: CS=5.2



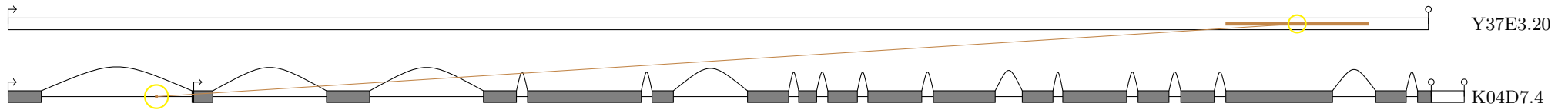
|       |           |   |            |        |       |          |          |
|-------|-----------|---|------------|--------|-------|----------|----------|
| C.Ele | cgct-cctc | aagcctcctggc...63...ctgatccacatgaaggctaa    | ACTTCCTTGg | ACGTct | GAGC  | cgcc---  | ttaataa  |
| C.Bri | -gctgcctc | aagcctccgac...63...ctgatccgcatgaaggttaa     | ACTTCCTTGg | ACGTct | GAGC  | cgcc---  | taaaagag |
| C.Jap | tgga-gggc | aagcctctggcg...66...---tcgaaatgaaggttaaactt | CCTTgg     | ACGTct | GAGC  | caccgcct | ttcaattt |
| C.Rem | ctct-cttc | aagcctccttga...68...---tccacatgaaggttaaactt | CCTTg      | ACGTct | GAGC  | cacc---  | tttaatt  |
|       |           | * *****                                     | ** *****   | *****  | ***** | **       | * **     |

id=197213 gene=Y37E3.20 name=Y37E3.20 segment=chrI\_2085040\_2085158.1 type=EN

|       |          |           |                |       |   |          |    |
|-------|----------|-----------|----------------|-------|---|----------|----|
| C.Ele | ttttcctt | gcaatgtat | GCTCATGTTAAGGt | AAGT  | agaagccattatatgggcg-...920...attcggctcttg   | aaaaaag  |    |
| C.Bri | ttttcctc | gccatgtat | GCTCATGTTAAGGt | GAGT  | -caagattactgtatttttt...870...tggaaattttca   | aaaaatga |    |
| C.Jap | tcttcctt | gccatgtat | GCTCATGTaAAGG  | ----- | taogtggttttggacaccgt...2148...ctctagtttttag | taatcaa  |    |
| C.Rem | ttttcctc | gccatgtat | GCTCATGTTAAGG  | ----- | tttgttttttttgttttta...738...actcaatctcta    | attathtt |    |
|       | * *****  | ** *****  | *****          | **    | *   | *        | ** |

id=33630 gene=Y57A10B.1 name=Y57A10B.1 segment=chrII\_12360500\_12361478\_-1 type=IN

Figure 231: CS=6.24



|       |          |  |                             |            |          |
|-------|----------|--|-----------------------------|------------|----------|
| C.Ele | cgctcctc | aagcctcctggc...61...tctgatccacatgaaggct                        | <b>AAACTCCTTGGACGTCTGAG</b> | ccgcc      | tttaataa |
| C.Bri | gctgcctc | aagcctcccgc...61...tactgatccgcatgaaggtt                        | <b>AAACTCCTTGGACGTCTGAG</b> | ctgagccgcc | taaaagag |
| C.Bre | gaacagac | aagcctcctggc...60...tactgatccgcatgaaggtt                       | <b>GAACTCCTTGGACGTCTGAG</b> | ccgcc      | tttataag |
| C.Rem | ctctcttc | aagcctccttga...62...tgctgatccacatgaaggtt                       | <b>AAACTCCTTGGACGTCTGAG</b> | ccacc      | tttaaatt |
|       |          | * **** |                             |            |          |

id=197213 gene=Y37E3.20 name=Y37E3.20 segment=chrI\_2085040\_2085158.1 type=EN

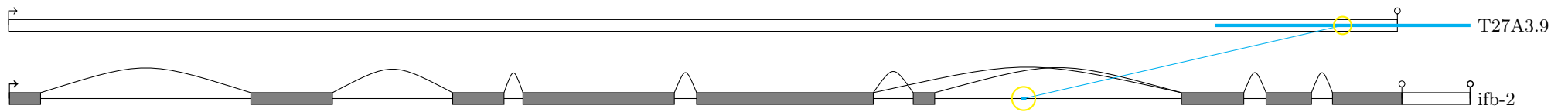
|       |          |  |                               |  |           |
|-------|----------|--|-------------------------------|--|-----------|
| C.Ele | tgagaatt | ttataaggtaaa...695...aaacgaaaagagacggaaa-      | <b>TTCGGTGTGTTCAAGGAAGTTT</b> | -ctaagagtttcaagagaga...124...tataatacttac  | ttttcaga- |
| C.Bri | tgaaaagt | ttatcaggtatt...257...aagctgtcaagcggaaaaac----- | <b>GTGTTCAAGGAAGTTT</b>       | tctgagagtttc-aaacctct...65...-atgccactta   | ctccaatt  |
| C.Bre | ggaaaatt | ttataaggtacg...573...aaaagagagacgacggaaa-      | <b>TTCGGTGTGTTCAAGGAAGTTT</b> | -ctgagagtttgagacctct...107...-aaagtttctaa  | ttttattca |
| C.Rem | tgaaaact | tcatcaggtatt...236...aaacgaaaagagaagggaaa      | <b>TTCGGTGTGTTCAAGGAAGTTT</b> | -ctgagagtttcgagacctct...126...caatacattgaa | atctcaga- |
|       | ** * *   | * ** ***** **                                  | ***** ** ***** *              | * * * * * *                                | *         |

id=208361 gene=K04D7.4 name=K04D7.4 segment=chrIV\_10193351\_10194256\_-1 type=IN

Figure 232: CS=5.2







```

C.Ele  ---acccccag cgcgcgatgacg...26...ttgtgaggacaaaagactatGGTAaCACTCgGAGActa g---tttttca
C.Bri  ---gccgctgc ccgtcaatgacg...26...ttgtgacgacaaacaactatGGTAACACTccGAGAcca atactttttcc
C.Bre  attccacgcacc tcgctgat---...30...ttgtgaggaaaaaagactatGGTAACACTccGAGActa t---ttttgtt
C.Rem  ---ccaacgac  cgcgcgatgacg...26...ttgtgaggaaaaaagactatGGTAACACTccGAGActa a---tttttcc
      *          **** **          ***** ** ***  ***** ** * ***** ** * *****

```

id=3028 gene=T27A3.9 name=T27A3.9 segment=chrI\_6105681\_6105756\_-1 type=EN

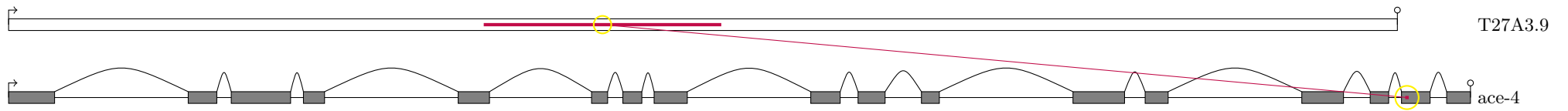
```

C.Ele  ggtagcta taac--cgcttcat...165...---gatataattatgtaatacTTTCaGAGTGTATCcgcaaggaactttaaggtat...344...attggtaccagt cgagcaag
C.Bri  ggtagtcg ttgcaatgcttc---...159...---tgaatcatttt-tttaatgtaTTTCAGTGTtTATCcacaaggaactttgaggtat...267...agttggaacctt ggagacag
C.Bre  agcactact tact--cgctttct...200...taatcttttttctt-cttaat---TTTCAGTGTaTATCcacaagggactctaaggtat...335...agttggaacctt cgaacaag
C.Rem  ggtagcta tact--tgcttcgt...200...attccttcattttgtttaa---TTTCAGTGTtTATCcacaaggaacattgaggtat...302...agttggaacata cgaacaag
      * * *          ****          * * **          ***** ** ***** ** * *****          * * * * *          ** **

```

id=276378 gene=F10C1.7 name=ifb-2 segment=chrII\_5752848\_5753434\_1 type=IN

Figure 234: CS=5.04



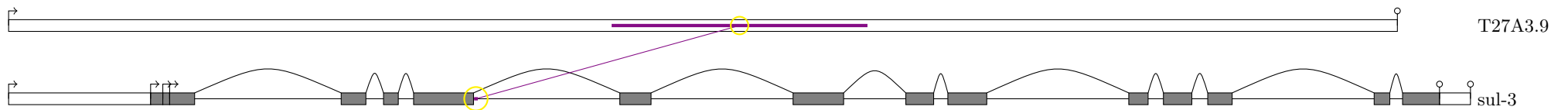
C.Bri --gcc--gctgccggtcaatgacgaataGAAGTTATCCctGTCTGAA+GATTGtgacgacaaaacaactatggtaaacactccgagaccaataactttttcc  
 C.Bre attccacgcacctcgatgacgaccagaAGTTATCCctGTCTGaaTGATTgTGAGgaaaaaagactatggtaaacactccgagac---tatttttgtt  
 C.Jap cctctgcac---cgtctgtgacgactgaaAGTTATCCCTGTCTGAA+ttATTGtgAGGAaaaaaagactatggtaaacattccgagac---taatttttgc  
 C.Rem ---cca-acgacccgctgatgacgaccagaAGTTATCCctGTCTGA+GATTgtgaggaaaaaagactatggtaaacactccgagac---taatttttcc  
 \* \* \*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \*

id=3028 gene=T27A3.9 name=T27A3.9 segment=chrI\_6105681\_6105756\_-1 type=EN

C.Bri aaagttgatt-----gttt----ccactaggttctaa-----atctgataat-tcaggagtctaaat-----TAATTtTT---CAGATGGATgcAACTTCgaagtggctccaacat  
 C.Bre acaatttgTTTTtagcagtgtt----tcctaattccaat-----tttctgtgatattatcag-----TTTGAATTACAGATGGATgcAACTgagaagtggatcaaatat  
 C.Jap tgTTTTgaatttttaaaaagttaaaaacgataatgtct-----ttgaatgacaatttca---tttcaac-----TCCTTGATtTTTgTACAGATGGATgcAACTgagaagtggctccaat  
 C.Rem atttttatTTTTa----tttctcagacactttttctgttacggtgaacactgttgcaaatattagtatc----tctgaactctttaaaataagaGA---TTT---CAGATGGATgcAACTgagaagtggatccaat  
 \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \* \*\* \*

id=146247 gene=Y48B6A.7 name=ace-4 segment=chrII\_14204945\_14204992\_1 type=IN

Figure 235: CS=6.8



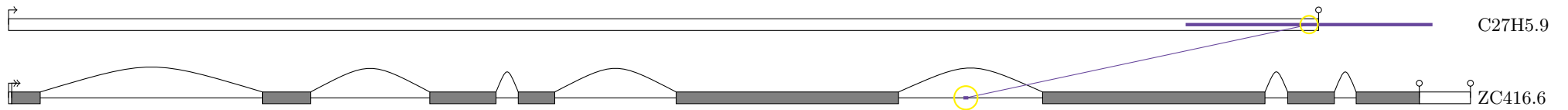
|       |          |                                |                  |                                       |                                   |          |    |
|-------|----------|--------------------------------|------------------|---------------------------------------|-----------------------------------|----------|----|
| C.Ele | acccccag | c---cgtcgatgacgaccaagagttatc   | CCTGtCTGAaTGATTG | tgaggacaaaagactatggtaaacactccgagac    | ---ta                             | gtttttca |    |
| C.Bri | gcc---   | gctgcccgtcaatgacgaatagaagttatc | CCTGtCTGAaTGATTG | tgacgacaaaactatggtaaacactccgagaccaata |                                   | ctttttcc |    |
| C.Bre | attccacg | cacctcgtcgatgacgaccagaagttatc  | CCTGtCTGAATGATTG | tgaggaaaaagactatggtaaacactccgagac     | ---ta                             | tttttgtt |    |
| C.Rem | ---cca-a | cgacccgtcgatgacgaccaga         | AGTTA            | tCCTGtCTGAATGATTG                     | tgaggaaaaagactatggtaaacactccgagac | ---ta    |    |
|       |          | *                              | ****             | *****                                 | *                                 | *****    | ** |

id=3028 gene=T27A3.9 name=T27A3.9 segment=chrI\_6105681\_6105756\_-1 type=EN

|       |          |               |                             |            |              |                |
|-------|----------|---------------|-----------------------------|------------|--------------|----------------|
| C.Ele | tCAATCac | TCAGCAGG      | ----tactaaccactttgaataac    | ...1044... | caagtttatcga | attgcaga-----  |
| C.Bri | tCAATCac | TCAGCAGG      | ----tacg---ctaatcgagcaattgt | ...523...  | -----tactgt  | aatgcactttcaga |
| C.Bre | tCAATCAT | TCAGCAGG      | ----tatt---cacgggggtgatgag  | ...952...  | ataaaatattg  | attacaga-----  |
| C.Rem | tCAATCAT | TCAGCAGGTAGTT | aaca---cattcagagcacacac     | ...563...  | ttccctattga  | agcaaat-----   |
|       | *****    | *****         | *                           | *          | *            | **             |

id=146420 gene=C54D2.4 name=sul-3 segment=chrX\_7831096\_7832179\_-1 type=IN

Figure 236: CS=5.04



```

C.Bri -----cacagcctgtcgc-----gctcgcac-cctctcgtttgtcagtgaaataatacttaccgccccaggcatAATGttTGTGATGAttggttta
C.Bre -----tgcat-ctctcgc-----gttcggttccacgtgtgtcagtgacgatattacataccgccccaggcatAATGttTGTGATGAttggttta
C.Jap -----aaaacacac-cgctggttcgaggttcgtgt-----ttgtcagtgacgatactacataccgccccaggcatAATGttTGTGATGATTGGTTta
C.Rem  gtgctgttcacag-cggtcgt-----gctcgactccacgcggtgtcagtgacgaaatacttaccgccccaggcatAATGttTGTGATGAttggttta
          ** * * *          * **          ***** ** * ** *****

```

id=92574 gene=C27H5.9 name=C27H5.9 segment=chrII\_7183969\_7184037\_-1 type=EN

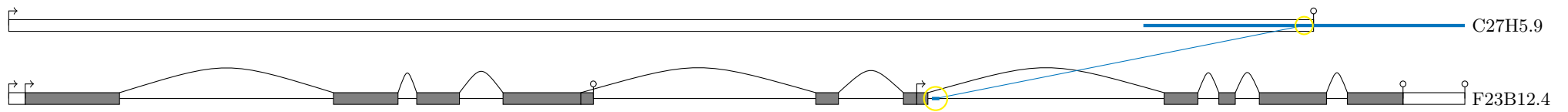
```

C.Bri  ttccagctgtgagttctttt...106...gatgacacctgataagcagc-----TTATCACACATTccttctctggaaa-----attgatttatatgtatcaaagttcaaagtcggtttt----tgcaggtatcga
C.Bre  ttccagcgtaaggatthtt...228...cctaacacctgataagcagc-----TTATCACACATTccaattctctgaaaaagttgaaa-----aacgat--a-----taaagtgacaaagttcattttcttctgcaggtctatga
C.Jap  taccagcgtaagtgccttg...50...---gtgcaaaaataagaacctgatAATCGGTTTATCACACATT-ccttctctcgaaaatgtgata-----ggtgattga-----a-----tacaagttcaagttt----tgcaggttatga
C.Rem  ttccagcggtgagttatttc...191...gatgacacctgataagcagc-----TTATCACACATTccttctctgaaaaagaaaaaacttgaatgattaa-----cagcgttgcaaagttcatttct----tgcaggtctacga
* ***** ** **   ***          * ***** * *          ***** ** * ** ***** ** **

```

id=6870 gene=ZC416.6 name=ZC416.6 segment=chrIV\_3610237\_3610560\_-1 type=IN

Figure 237: CS=6.12



```

C.Ele gagacgct c-----tcgcggttcggtccctcgtg-ttgtcagtgacgatattacttaccgcccagGCATAgTGTGTGATGA TTggTTTaa
C.Bre ttgcatct c-----tcgcggttcggtccacgtg-ttgtcagtgacgatattacataccgcccagGCATAaTGTGTGATGA TTggTTTaa
C.Jap aaaaacaca ccgctggttcgaggtt-----cgtgtttgtcagtgacgataactacataccgcccagGCATAaTGTGTGATGA TTggTTTaa
C.Rem gtgctggtt cacagcggtcgtgctcgactccacgcg-ttgtcagtgacgaaattacttaccgcccagGCATAaTGTGTGATGA TTggTTTaa
*          *** * *          * * * ***** * * * ***** ***** ***** *****

```

id=92574 gene=C27H5.9 name=C27H5.9 segment=chrII.7183969-7184037\_-1 type=EN

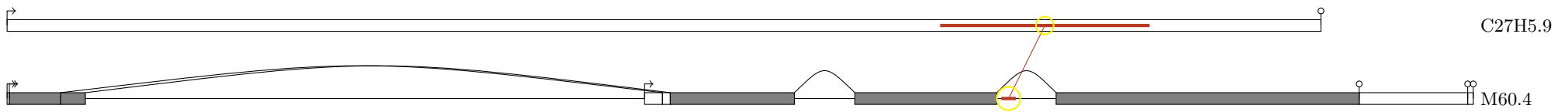
```

C.Ele ggtaTGGAAATCATgCATAGACGTATGTgtaagatgtagacagattta...1231...ttcagatggctt ccaacgtg
C.Bre ggtaTGGAAATCATgCATAGACGTATGTgtaagaagtagaagagtg...271...ttcagatggctt ccaacgtg
C.Jap ggtaTGGAAATCATgCATAGACGTATGTaaaaaaggagtggtgcctag...1413...ttcagacggctt caatcgcg
C.Rem ggtaTGGAAATCATgCATAGACGTATGTgtaagatgtagatgattta...153...ttcagatggctt ccaacgtg
***** ***** ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=36241 gene=F23B12.4 name=F23B12.4 segment=chrV.14443367-14444649\_1 type=IN

Figure 238: CS=6.24



```

C.Ele -----gagacgct ctcggttcgttccctcgtggtgtcagtgacgatattactTACCGCCCAGGCatagtgtttgtgatga ttggtta
C.Bri -----cacagcct gtcgctcgcac-cctctcgttgtcagtgagataaatACTTACCGCCCAGGCATaatggtttgtgatga ttggtta
C.Bre -----ttgcatct ctcggttcgttccacgtggtgtcagtgacgatattacaTACCGCCCAGGCataatggtttgtgatga ttggtta
C.Rem gtgctgttcacag-cg gtcgtgctcgactccacgcggttgtcagtgacgaaattACTTACCGCCCAGGCataatggtttgtgatga ttggtta
          *          *** * *** ** * ***** ** * *** ***** ***** ***** ***** *****
  
```

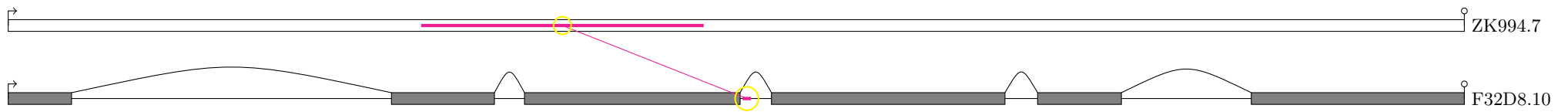
id=92574 gene=C27H5.9 name=C27H5.9 segment=chrII\_7183969\_7184037\_-1 type=EN

```

C.Ele cagaGCCT GGGGacTGGTGcgttgatattgtcatttttaaatgaaatctaactatt-- tatttcag-----
C.Bri tcGTGCCT GGGGatTGGTGAGTt-----ttaaagagccaaaacct---attcttaa agtttaatttcta
C.Bre ccgcGCCT GGGGatTGGTGagttgctcttcacagtttctaagttctggaccttaacttttg aatttcag-----
C.Rem cagaGCCT GGGGatTGGTAAGTtaaccctaccagctatccgagccaaaaccccaactttcaa tatttcag-----
          * **** ***** *** ** * * * * * * * * * * * * * * * * * * * * * * *
  
```

id=18153 gene=M60.4 name=M60.4 segment=chrX\_8232576\_8232628\_-1 type=IN

Figure 239: CS=5.36



```

C.Ele ttggcgag cgcaatgaatGTTTAacCATCTTTCggctgaatcca---tgatgccaatTTTcaaaatactgag:::::-----atgaaatgaaa
C.Bri cttgctgt cgcgatgAAGGTTTAacCATCTTTCggctgacgaaacgactgatgctagcattttctatactgag:::::-----gtaggaaaaat
C.Bre cgtgctgc cgcgatgaaggTTTAacCATCTTTCggctgagtaca---tgatgccagaattttct-tactgag:::::cttcagagctatcaaaaaatggtcaactgacgaaatgtt
C.Jap accgctgc cgcgatgaagGTTTAacCATCTTTCggctgagttca---tgatgccagaattttctatactgag:::::-----
*** * *** ***** ***** * ***** * ** *****

```

id=162146 gene=ZK994.7 name=ZK994.7 segment=chrV\_8500558.8500624.1 type=EN

```

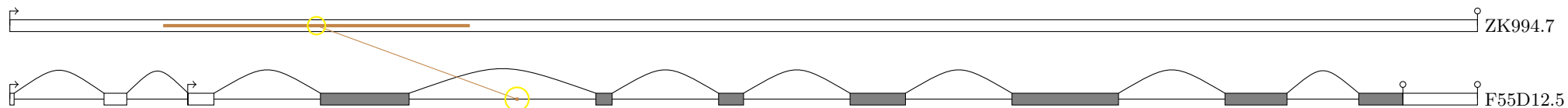
C.Ele aaagGAAG tcGATGTAAGT-----tatactagaaatgacggcgtt-----:::::-----
C.Bri gaagGAAG ttGATGTAAGTCTT-----:::::-----
C.Bre gaagGAAG ttGATGTAAG-----:::::-----
C.Jap gaagGAAG tgGATGTAAGTggggtttgtggggagaatgtcggcttttaatggatctat:::::agcgcgcctgtactttaagcgtcactgtattaatggcgc
***** * *****

```

id=45121 gene=F32D8.10 name=F32D8.10 segment=chrV\_10907820.10907868\_-1 type=IN VIEW

Figure 240: CS=6.24





```

C.Ele  -----tTGGcgAGCGCaATGAAtGTTTAaccatctttcggctgaatcca---tgatgccaattttca:::::-----atgaaatgaa
C.Bri  cttgcgt-----GCGCGATGAAGGTTTAaccatctttcggctgacgaaacgactgatgctagcatttt:::::-----gtaggaaaaat
C.Bre  cgtgcgc-----GCGCGATGAAGGTTTAaccatctttcggctgagtaca---tgatgccagaatttt:::::cttcagagctatcaaaaaatggtcaactgacgaaatgttt
C.Jap  accgcgc-----GCGCGATGAAGGTTTAaccatctttcggctgagttca---tgatgccagaatttt:::::-----
* ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *

```

id=162146 gene=ZK994.7 name=ZK994.7 segment=chrV\_8500558.8500624.1 type=EN

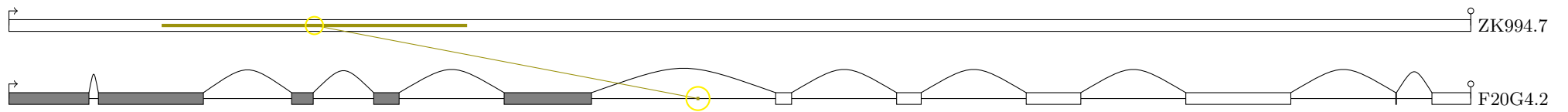
```

C.Ele  atctataa ggtatgtttttt...1268...gccctgtttgacatttcggc---TAAGCTtTTCATGCGTTCGGTgttttctctcattgtgctcc...333...attctcatttca gatgtcaa
C.Bri  aaaaatca ggtatgtaacat...1025...cccctgtttgacatttcggc---TAAGCTtTTCATGCGTtccggtgagtttctcattgg-----...250...tctattctttca gctgcaaa
C.Bre  cacaatca ggtatgtttatt...1566...--ctgtttgacatttcggcccTAAGCTtTTCATGCGTtccgtgagtttctcattgg-----...211...aaaagaatttca gatgtcaa
C.Jap  tagtttac ggtatgttttat...905...ctcctgtttgacatttcggc---TAAGCTtTTCATGCGTtccggtgagtttctcattgg-----...1535...atTTTTTTTaca gatgtcaa
* ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *

```

id=30973 gene=F55D12.5 name=F55D12.5 segment=chrI\_7912161.7913846\_-1 type=IN

Figure 241: CS=5.04



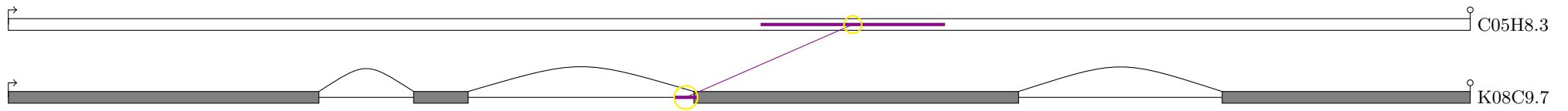
|       |        |         |                 |  |                     |       |                                       |            |
|-------|--------|---------|-----------------|--|---------------------|-------|---------------------------------------|------------|
| C.Ele | -----t | TGGcgAG | CGCaATGAAtGTTTA | accatctttcggctgaatcca                    | ---tgatgccaattttca  | ::::: | -----                                 | atgaaatgaa |
| C.Bri | cttgcg | -----G  | CGCGATGAAGGTTTA | accatctttcggctgacgaaacgactgatgctagcatttt | :::::               | ----- | gtaggaaaaat                           |            |
| C.Bre | cgtg   | -----G  | CGCGATGAAGGTTTA | accatctttcggctgagtaca                    | ---tgatgccaagaatttt | ::::: | cttcagagctatcaaaaaatggtcaactgacgaaatg |            |
| C.Jap | accgcg | -----G  | CGCGATGAAGGTTTA | accatctttcggctgagttca                    | ---tgatgccaagaatttt | ::::: | -----                                 |            |
|       |        |         | ***             | *****                                    | *****               | *     | *****                                 | * **       |

id=162146 gene=ZK994.7 name=ZK994.7 segment=chrV\_8500558.8500624.1 type=EN

|       |          |        |                  |                        |            |               |                         |        |              |              |          |
|-------|----------|--------|------------------|------------------------|------------|---------------|-------------------------|--------|--------------|--------------|----------|
| C.Ele | atctataa | ggtatg | ttttt...1268...  | gccctgtttgacatttcggc   | ---TAAGCTt | TTCATGCGTCCGG | tgtttctctcattgtgctcc... | 333... | attctcatttca | gatgtcaa     |          |
| C.Bri | aaaaatca | ggtatg | taacat...1025... | cccctgtttgacatttcggc   | ---TAAGCTt | TTCATGCGT     | tccggtgagtttctcattgg    | -----  | ...250...    | tctattctttca | gctgcaa  |
| C.Bre | cacaatca | ggtatg | tttatt...1566... | ---ctgtttgacatttcggccc | TAAGCTt    | TTCATGCGT     | tcctgt-catcgctcattgtg   | ----   | ...211...    | aaaagaatttca | gatgtcaa |
| C.Jap | tagtttac | ggtatg | ttttat...905...  | ctcctgtttgacatttcggc   | ---TAAGCTt | TTCATGCGT     | tccggtgtgtttctctct      | ----   | ...1535...   | atTTTTTTTaca | gatgtcaa |
|       | *        | *****  | *                | *****                  | ***        | *****         | ***                     | *      | ***          | *            | ***      |

id=4673 gene=F20G4.2 name=F20G4.2 segment=chrI\_7912161.7913846\_-1 type=I3

Figure 242: CS=5.04



```

C.Bri g--cgcgctctctgtctaccttactcgaataaccgctcgatgaagactactaaaTGACGaaTCCTAATAGccaatgggtttcattgcggatagaggcatttgtctgagcgggtata
C.Bre g--tgctttcactgcctaccttactcgaataaccgctcgatgaagactactaaaTGACGaaTCCTAATA-----ccattgcggatagaggcatttgtctgagcgggttta
C.Jap gctcgtctatctgcctaccttactcgaataaccgctcgatgaagactactaaaTGACGaaTCCTAATAAC-----cattgcggatagaggcatttgtctgagcgggttta
C.Rem gcgcgtttcatctccctaccttactcga-aaccgctcgatgaagaccactaaaTGACGaaTCCTAATAACccaatgggtttcattgcggatagaggcatttgtctgagcgggaata
* *      ** ***** ** ***** ** ***** ** ***** ** ***** ** ***** ** ***** ** ***** ** ***** **

```

id=270728 gene=C05H8.3 name=C05H8.3 segment=chrIII\_5653822\_5653924\_-1 type=EN

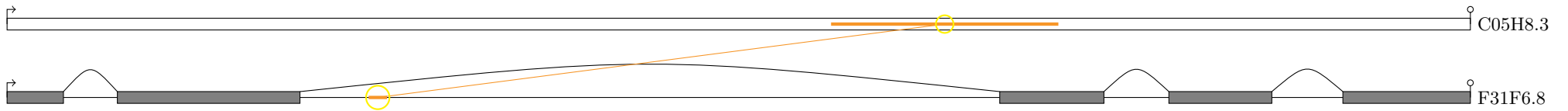
```

C.Bri cttgccggttcgtttcgtt...61...gacacattcttgatttttacCTGTTaAGGACGTCAgctcgagga
C.Bre cttcgctggttcgtttcgtt...60...-acacattcttgattttaaaTGTTaAGGACGTCAgctcgagga
C.Jap cttcgctggttcgtttagct...55...aacacattcttgaaattaac-TGTTAAGGACGTCAgctcgagga
C.Rem cttgccggttcgtttcgtt...66...-acacattcttgatttttacTGTTAAGGACGTCAgctcgagga
***** ***** * * ***** ** * ***** ** ***** **

```

id=235179 gene=K08C9.7 name=K08C9.7 segment=chrI\_11495896\_11496007\_-1 type=IN

Figure 243: CS=6.92



```

C.Ele  gcactttt aatgcatctaccttactcgaaataaccgctcgatgaagaccactaaatgaCGAAtcCTAAAtaGCCCAATGggtttcattgaggatgaggcatttgtctgag cgggcata
C.Bri  ggcgcgtc --tctgtctaccttactcgaa-taaccgctcgatgaagactactaaatgaCGAATCCTAATAGCCCAATGGgtttcattgaggatgaggcatttgtctgag cgggtata
C.Bre  gtgctttc --actgcctaccttactcgaa-taaccgctcgatgaagactactaaatgaCGAAtcCTAATA-CCCAATGCG-----gatagaggcatttgtctgag cgggttta
C.Rem  gcgcgttt catctccctaccttactcgaa--aaccgctcgatgaagaccactaaatgaCGAAtcCTAAAtaACCCAatgggtttcattgaggatgaggcatttgtctgag cgggaata
* * *      *****

```

id=270728 gene=C05H8.3 name=C05H8.3 segment=chrIII.5653822.5653924\_-1 type=EN

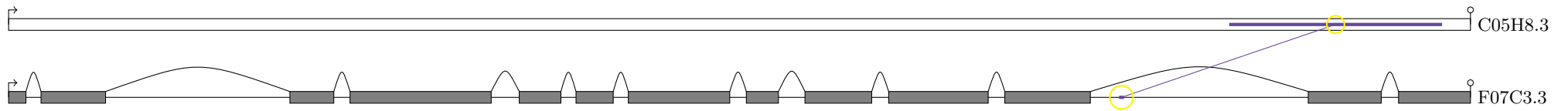
```

C.Ele  -----gagagggt tttgtagagaattgac--cacgagttggttc-ttttgttgacaatgtg---CATTGGGTgtTTGGtTTCGgacctcgatttctaagacgg...1836...aggttgatcaag ctcttcgt
C.Bri  -----gataagta tttgtggagaagtgac--cacggggta---ctctttgttgacagtgtgcaCTGTGGGGTGTTTGGTTTCGgacctcaagttctaagacgg...1301...aggttgatcaag cacttcgg
C.Bre  atgggtttttagata tttgaagag--ttgac--cacgagttgactctttttgttgacaatg---TGCAATGGGGTGTTTGGTTCGgacctcgatttctaagacgg...524...aggttgaccaag ctctccga
C.Rem  -----tgaaggtta tttgtagag--ttgaccacacgagttgactcgtttgttgacaatgtgcac---TGGGTgtTTGGtTTCGgacctcaagttctaagacgg...79...aggttagaccaag cccttcga
* *      **** *

```

id=52294 gene=F31F6.8 name=F31F6.8 segment=chrX.14876335.14878266\_1 type=IN

Figure 244: CS=6.12



```

C.Bri g--cgcgctctctgtctacct...46...--agcccaatgggtttcattgcGGATAtgAGGCaTTGtctgagcgggtata
C.Bre g--tgctttcactgcctacct...35...cgaatcctaata---cccattgcGGATAtgAGGCaTTGtctgagcgggtta
C.Jap gctcgctctatctgcctacc--...37...cgaatcctaata---accattgcGGATAtgAGGCaTTGtctgagcgggtta
C.Rem gcgcgtttcatctccctacc--...47...--aacccaatgggtttcattgcGGATAtgAGGCaTTGtctgagcgggaata
* * ** ***** * ** ** *****

```

id=270728 gene=C05H8.3 name=C05H8.3 segment=chrIII\_5653822\_5653924\_-1 type=EN

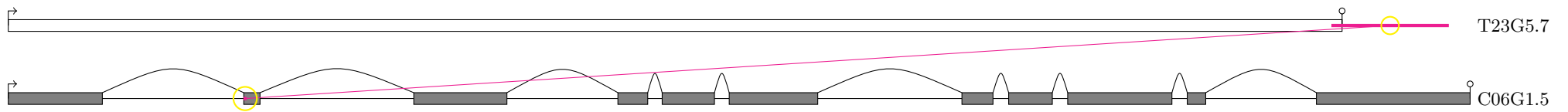
```

C.Bri agcagaaaaaggttaagaaa...38...gcaatcttctgattagaagtCAGAcGCCTTATCCattaggccacaaggccacgt...74...ttggac--ttcttcaggatca
C.Bre atcagaaaaaggttaagtaa...37...gcaatcttctgattagaagtCAGAcGCCTTATCCattaggccacaaggccatgt...173...--aattaattcttcaggacca
C.Jap aacaaaaaggttaatttaa...39...gcaatcttctgattagaagtCAGAcGCCTTATCCattaggccacaaggccacga...70...ttcaat--gctttgaggatca
C.Rem accagaaaaaggttaaatatt...60...gcaatcttctgattagaagtCAGAcGCCTTATCCattaggccacaaggccacgt...92...--caaccgtatttacaggatca
* * * * * * ***** * * * * *

```

id=8892 gene=F07C3.3 name=F07C3.3 segment=chrV\_9228127\_9229886\_-1 type=IN

Figure 245: CS=8.72



```

C.Ele  ttaattac cgaagtgcgata...84...caaaaaaaaaagggtgtgctccGGACAAAAA TCAactaa
C.Bri  gagattac cgaagtgcgata...84...gctccctatcgggttgcttgGGACAAAAA TCAGctga
C.Bre  tggaattc cgaagtgcgata...85...atgccttatcggatgtttcGGACAAAAA TCAGctga
C.Rem  tgtgcttc cgaagtgcgatt...85...tacccttatcgggtgtgcttgGGACAAAAA TCAGctga
      * * ***** * * * * * ***** *** * *
  
```

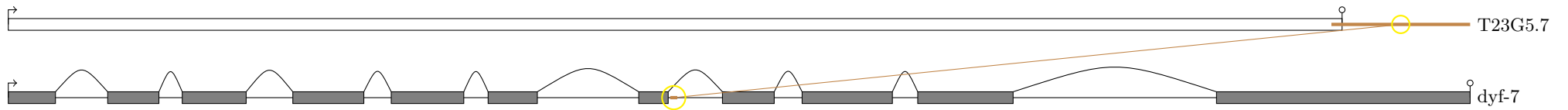
id=304544 gene=T23G5.7 name=T23G5.7 segment=chrIII\_9226771.9226895\_-1 type=EN

```

C.Ele  ttgttaag aaatcgaactgt...419...-----caaattaacccatacctaa-TGATTTTTC TTCatttc
C.Bri  ttgttaag aaatcgtacagt...179...-----caaaaaaccaataaattgtaCTGATTTTTC TTCatttc
C.Bre  ttactaag aaatcgcacagt...258...tthttcaaactatcc-----cccaaCTGATTTTTC TTCatttc
C.Rem  ttactaag aaatcgaactgt...213...-----cctacctaacatacgtgcaaCTGATTTTTC TTCatttc
** **** ***** ** ** * * * ***** *****
  
```

id=143150 gene=C06G1.5 name=C06G1.5 segment=chrX\_16642223.16642682\_-1 type=IN

Figure 246: CS=8.84



```

C.Bri gagattaccgaagtgcgata...74...-aaccaaacagctccctatcGGGTGCTTGGGACA AAAATCAGCTga
C.Bre tgaattccgaagtgcgata...80...gattcatgccttatcggtat-----GTTTGGACA AAAATCAGCTga
C.Jap gatcggatcgaagtgcgata...87...-attcat-atatagtggtctgt-----AGGACAAATTaCAGCTaa
C.Rem tgtgcttccgaagtgcgatt...84...-atac---ccttatcgggtgtgctt-----GGGACA AAAATCAGCTga
          *****          * *          * *          *****  ***** *

```

id=304544 gene=T23G5.7 name=T23G5.7 segment=chrIII.9226771.9226895\_-1 type=EN

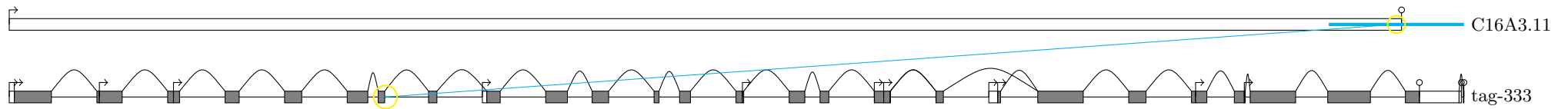
```

C.Bri gtgAGTTGgATTaTGTTCTTGGGCACCTttctgcttcaaaagcagga-----..37...tcagatctacttctccaagt
C.Bre gtgAGTTGgATTaTGTTCTAAGC-----tcccaagctaagctcgaa-----..51...ttagatctacttctccaagt
C.Jap gtgAGTTGGATTatGTTCT-----tgagtgtcca-----gggagcttt--..84...ttagattacttctccaagt
C.Rem gtgAGTTGgATTaTGTTCT-----tta--gctcga-----cggagcttcac...73...tcagatctacttctccaagt
*****          *          *          *          * *****

```

id=41344 gene=C43C3.3 name=dyf-7 segment=chrX.9699921.9700027\_1 type=IN

Figure 247: CS=5.8



```

C.Bri cctatgcacatactatgctc...87...taattgtatttagattaga----tCTCAaTAACACGATGacaattcta
C.Bre -tagatagtagaatgctcttc...84...taaacgtaattagggttaga----tCTCAaTAACACGATGAcaattcat
C.Jap attagacaaacatogctctt...86...taattgtctttaattaga----tCTCAaTAACACGATGAcaattcaa
C.Rem -ttaaattagattgctcttc...84...----gtattcaaatcagaatgtgtCTCAaTAACACGATGacaatctat
          * *      **                * * * * *  *****

```

id=45611 gene=C16A3.11 name=C16A3.11 segment=chrIII\_6374362\_6374495\_-1 type=EN

```

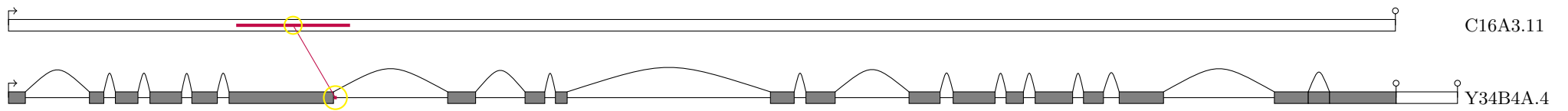
C.Bri cTATTGTGTTaTGAGtgagttttctcaccttggttgaacctgtaatagaagggc:::::attacaggttttacgtactctcaatttttaatttcaga
C.Bre tTATTGTGTTaTGAGtaagtt-----:-----cttcgtcaccattgaaaattgtttttcaga
C.Jap tTATTGTGTTaTGAGtgagtt-----:-----ttctcaga
C.Rem cTATTGTGTTaTGAGtaagat-----:-----cttgata-----ttttcaga
***** ** *

```

id=268978 gene=C48G7.3 name=tag-333 segment=chrV\_14808556\_14809037\_-1 type=IN

Figure 248: CS=6.32





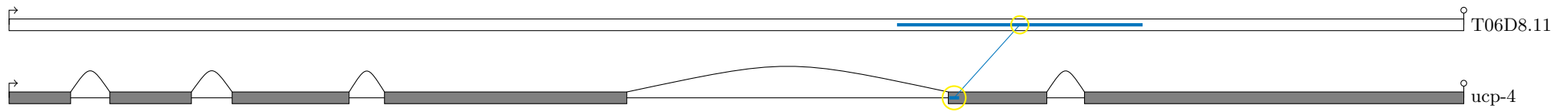
|       |          |                 |                         |  |            |
|-------|----------|-----------------|-------------------------|--|------------|
| C.Ele | tttatatc | agta-tacgctcttc | <b>AAAAGCACTGGT</b>     | tatcggactcagacttgtcc...76...ataacacgatga | cagttttc   |
| C.Bri | cctatgca | catactatgctctt  | <b>TAAAAGCACTGGT</b>    | tataggactctgacttgtcc...76...ataacacgatga | caattcta   |
| C.Bre | ---tagat | agtagaatgc      | <b>TCTTCAAAGCACTGGT</b> | catcggactcggacttgtcc...76...ataacacgatga | caattcat   |
| C.Rem | ---ttaa  | attagattgctcttc | <b>AAAAGCACTGGT</b>     | tttaggatccattattatcc...76...ataacacgatga | caatctat   |
|       |          | **              | *****                   | * ** * ** **                             | ***** ** * |

id=45611 gene=C16A3.11 name=C16A3.11 segment=chrIII.6374362-6374495.-1 type=EN

|       |    |               |                  |   |               |
|-------|----|---------------|------------------|---|---------------|
| C.Ele | at | <b>ACCAgG</b> | <b>TGTgTTTT</b>  | -----acacgatgcaatgtgagcca...1087...attatmttcagg             | gtgctgcg      |
| C.Bri | at | <b>ACCAgG</b> | <b>TGTgTTTTA</b> | -----caactgggagagagagggtt-...116...taggattccagg             | gtaccgca      |
| C.Bre | at | <b>ACCAgG</b> | <b>TGTgTTTT</b>  | <b>GAGGA</b> aaagctgccgagggttaaag-----...117...tagatmttcagg | ggacatcg      |
| C.Rem | at | <b>ACCAgG</b> | <b>TGTgTTTT</b>  | -----acacaaagagaaccgcta....132...tatcgtttcagg               | gcacatca      |
|       |    | *****         | *****            |   | ** **** * * * |

id=139351 gene=Y34B4A.4 name=Y34B4A.4 segment=chrX.5265764-5266890.1 type=IN

Figure 249: CS=7.04



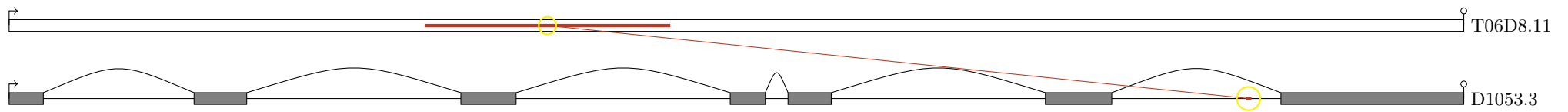
|       |           |             |                  |               |            |       |        |           |           |                |              |            |      |
|-------|-----------|-------------|------------------|---------------|------------|-------|--------|-----------|-----------|----------------|--------------|------------|------|
| C.Ele | ta-ccaaa- | ataaccaaatg | tttgagtgattg     | tttgtgatcgaat | tttGTCAC   | TATCg | CTGAGG | -----     | cttacaatt | tttggaagaaa    | -----        | tcaa       |      |
| C.Bri | -a-ccaaa  | ataaccaaatg | tttgagtgattg     | tttgtgagca--  | tttGTCAC   | TATCg | CTGAGG | gtcttccta | ataacaaa  | atgaaatcagg    | -----        | ttag       |      |
| C.Bre | tacccaaaa | agtaccaa    | atgtttgagtgattg  | tttgtgatca-   | atattGTCAC | TATCg | CTGAGG | -----     | tcttcgag  | taataaggaattga | -----        | taaa       |      |
| C.Jap | tacccaaaa | --tacc      | aatgtttgagtgattg | tttgtgatc--   | atttcGTCAC | TATCg | CTGAGG | -----     | ctcacca   | atgaaatgaaa    | agggttccgatt | ttgtgtctga | agtg |
|       | * ** **   | *****       | *****            | *****         | *****      | ***** | *****  | *****     | *****     | *****          | *****        | *****      |      |

id=192547 gene=T06D8.11 name=T06D8.11 segment=chrII\_11224118\_11224194\_1 type=EN

|       |          |          |         |             |           |       |         |       |           |             |             |          |          |          |
|-------|----------|----------|---------|-------------|-----------|-------|---------|-------|-----------|-------------|-------------|----------|----------|----------|
| C.Ele | ttaaagta | agtcttat | -----   | ttgaaaaaaaa | acgggtt   | ::::: | tctattt | gtaaa | ttttatatt | aaaactaacat | atcaat      | TTCAGGAT | AatTGGCt |          |
| C.Bri | tcaagtg  | agtattat | gtcgtta | aaaaaatt    | gaagctgtg | ::::: | tcta    | ----  | aaa       | -----       | taatgctgaga | -atcg--  | TTCAGGAT | AatTGGCt |
| C.Bre | tgaagta  | ag       | -----   | -----       | -----     | ::::: | tctgtt  | gaaaa | atatata   | atcg        | tttgtta     | -----    | TTCAGGAT | AatTGGCt |
| C.Jap | tgaagtg  | at       | tttagt  | -----       | -----     | ::::: | tcta    | ----  | aaac      | -----       | ttatgacta   | ata-     | TTCAGGAT | AatTGGCt |
|       | * ** **  | *        |         |             |           |       | **      |       | **        |             |             |          | *****    | *****    |

id=288523 gene=K07B1.3 name=ucp-4 segment=chrV\_9335550\_9335967\_1 type=IN

Figure 250: CS=5.72



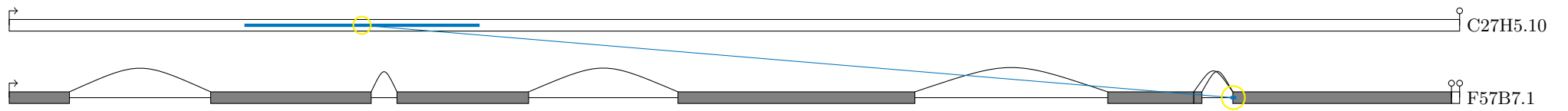
|       |            |             |            |          |          |                      |                      |                    |            |       |    |
|-------|------------|-------------|------------|----------|----------|----------------------|----------------------|--------------------|------------|-------|----|
| C.Ele | ta-ccaaa-  | ataaccaaatg | TTTGAGTGa  | TTGTTTGT | gatcgaat | ttgtcactatcgctgagg-  | cttacaat             | tttgcgaagaaaa----- | tcaat      | ttt   |    |
| C.Bri | -a-ccaaat  | ataaccaaat  | GTTTGAGTGa | TTGTTTGT | gagc-a-  | tttgtcactatcgctgagg- | tcttctaataacaaa      | at                 | tttgaat    | caggt |    |
| C.Bre | tacccaaaaa | agtaccaa    | atg        | ttGAGTGa | TTGTTTGT | gatc-aat             | attgtcactatcgctgagg- | ctt-cgagtaataagga  | attga----- | taa   | at |
| C.Rem | -a-ccaaat  | ataaccaaa   | ATGT       | ttGAGTGa | TTGTTTGT | gatc-aat             | tttgtcactatcgctgagg- | ctt-cacattata-aaat | gaaa-----  | ta    | at |
|       | * **       | *           | *****      | *        | *        | *****                | *** *                | *                  | *          | *     |    |

id=192547 gene=T06D8.11 name=T06D8.11 segment=chrII\_11224118.11224194.1 type=EN

|       |          |                 |        |            |               |           |           |           |         |                  |               |            |         |           |
|-------|----------|-----------------|--------|------------|---------------|-----------|-----------|-----------|---------|------------------|---------------|------------|---------|-----------|
| C.Ele | atgtctaa | aattgcaaggca... | 273... | ---gaacaag | tttacaattaaga | ACAAACAAg | TACTTGAA  | ---       | gatggtc | cacgaaaactaac--- | 41...         | ---aaaattc | at      | ttttgca   |
| C.Bri | atgtccaa | aattgccagggt... | 112... | tg         | tgacaaaatt--- | agtaaaa   | ACAAACAAg | TACTTGAAC | ---     | tcggaagaaaa-gt   | gttga...      | 32...      | ccagaat | acg--tt   |
| C.Bre | atgtccaa | aattgccaagtg... | 135... | tg         | tgacaaaatt--- | agtaaaa   | ACAAACAAg | TACTT     | ---     | cacgaagaaagct    | tagagaa...    | 38...      | aacaga  | ataca---t |
| C.Rem | atgtctaa | aattgccaagtg... | 123... | tg         | tgacaaaatt--- | agtaaaa   | ACAAACAAg | TACTT     | ACGT    | agac             | cttaggaaaactg | tt---      | 44...   | accaa     |
|       | **** *   | ***** * *       |        | **** *     | * **          | *****     |           |           | * ****  |                  |               | * ** *     | *       | *****     |

id=127020 gene=D1053.3 name=D1053.3 segment=chrX\_11729929.11730323.-1 type=IN

Figure 251: CS=5.2



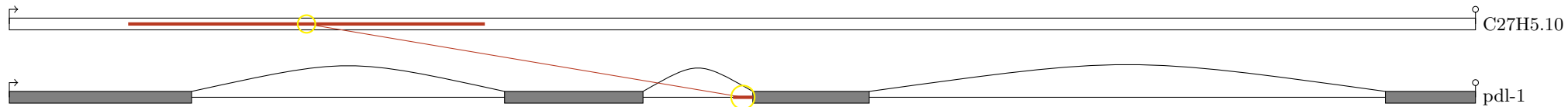
|       |          |      |                   |       |  |             |
|-------|----------|------|-------------------|-------|--|-------------|
| C.Ele | caaaatcg | aaat | ACCAcTCTGAAGT     | ----- | cggaatacataattagttttcatcaccagaagccaatattattcatccattgcgtg-c | aataacat    |
| C.Bre | cgaaatcg | aaga | ACCAcTCTGAAGT     | ----- | aagaatattaaataagttgtcat---tcgaacactatactattcagtcttcgctg-c  | gataacat    |
| C.Jap | caaagtcg | aaga | ACCAcTCTGAAGTAAGA | at    | ATGTTattagacacagttg-----cattgcgtg-t                        | gacaccac    |
| C.Rem | caaagtcg | aaat | ACCAcTCTGAAGT     | ----- | cgtcggaattaataataagttgtcat---tcggatactatattcagttatcgcgtgcc | gtaaca-     |
|       | * ** **  | **   | **** *****        |       | * * *  | * **** * ** |

id=197671 gene=C27H5.10 name=C27H5.10 segment=chrII\_7184378\_7184451\_-1 type=EN

|       |          |                     |                                    |              |          |
|-------|----------|---------------------|------------------------------------|--------------|----------|
| C.Ele | aaagtaag | aatatcaac-acatg     | ttttttctacaaaacttttgaataagccatgta- | ATTTcAGATGGT | cggaatcc |
| C.Bre | aaagtaag | agttccaaaagaatcg    | atTTTT-----aatacttgaata-----       | ATTTcAGATGGT | cggaggac |
| C.Jap | aaagtaag | agt---aattgcatcgatg | gc-----ccccaacaaAACGTTCTTg         | ATTTcAGATGGT | cggaggcc |
| C.Rem | aaagtaag | cactcccacgatctg     | gttttt-----aatacttgaaca-----       | ATTTcAGATGGT | cggaatcc |
|       | *****    | * * *               | ** *                               | *****        | **** *   |

id=258464 gene=F57B7.1 name=F57B7.1 segment=chrV\_11441108\_11441168\_1 type=IN

Figure 252: CS=7.4



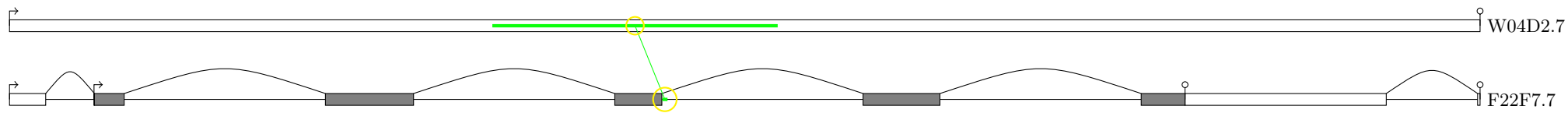
|        |   |         |               |     |       |               |    |         |    |
|--------|---|---------|---------------|-----|-------|---------------|----|---------|----|
| C. Ele | c | AAAATCG | AAATACCACTCTG | ... | 48... | ATCCATTGCGTG  | -C | AATAACA | t  |
| C. Bri | c | GAAATCG | AAAAACCATTCTG | ... | 42... | ATATTGCGGTG   | -C | AATAACA | t  |
| C. Bre | c | GAAATCG | AAGAACCATTCTG | ... | 45... | AGTCTTCGCGTG  | -C | GATAACA | t  |
| C. Jap | c | AAAGTCG | AAGAACCATTCTG | ... | 26... | TTGCATTGCGTG  | -T | GACACCA | c  |
| C. Rem | c | AAAGTCG | AAATACCACTCTG | ... | 48... | AGTATCGCGTGCC |    | GTTAAC  | -a |
|        |   | * * *   | ** **** **    |     |       | * **          |    | * *     |    |

id=197671 gene=C27H5.10 name=C27H5.10 segment=chrII.7184378.7184451.-1 type=EN

|        |      |         |       |            |            |              |       |       |                       |          |          |
|--------|------|---------|-------|------------|------------|--------------|-------|-------|-----------------------|----------|----------|
| C. Ele | ---- | tca     | ctcga | atattcatt  | ATGTTATTG  | -CACGCAATGGA | ...   | 50... | AGAGTGGTATTTCGATTTCG  | g        | atttgtca |
| C. Bri | ---- | tca     | ctaga | atattcata  | ATGTTATTG  | -CACACGCAATA | ...   | 44... | AGAATGGTTTTTCGATTTCG  | g        | attcgta  |
| C. Bre | ---- | tca     | ctgga | atattcatc  | ATGTTATCG  | -CACGCGAAGAC | ...   | 47... | AGAATGGTCTTCGATTTCG   | g        | attcgta  |
| C. Jap | ata  | ctttatt | agc   | gta----    | GTGGTGTC   | -CACGCAATGCA | ...   | 28... | AGAATGGTCTTCGACTTTCG  | g        | atttgtta |
| C. Rem | ---- | tcg     | ttcga | atattcatca | TGTTAACGGC | CACGCGATAAC  | ...   | 50... | AGAGTGGTATTTCGACTTTCG | g        | attcgta  |
|        |      | *       | *     | *          | **         | ** *         | *** * |       | *** **                | ***** ** | *** ** * |

id=90848 gene=C27H5.1 name=pdl-1 segment=chrII.7184361.7184460.1 type=IN VIEW

Figure 253: CS=10.25



```

C.Ele  cattgctt  ctgtgatcgacaacAAACcCAGCTCTCTgaatgattgtgaggtaagaaaaacagctgagaagcgctg  acaaaaaa
C.Bri  agtagctt  cagtgatcgacaacAAACcCAGCTCTCTgaatgattgtgaggtaagaaaactgctgagaagcaca  agcaataa
C.Bre  cattgctt  ctgtgatcgacaacAAACcCAGCTCTCTgaatgattgtgaggtaagaaaaacagctgagaagcgctg  aataataa
C.Rem  cgttgctt  ctgtgatcgacaacAAACcCAGCTCTCTgaatgattgtgaggtaagaaaaacagctgagaagcgctg  aaaattaa
* **** * ***** *

```

id=14585 gene=W04D2.7 name=W04D2.7 segment=chrV\_12491261\_12491327\_1 type=EN

```

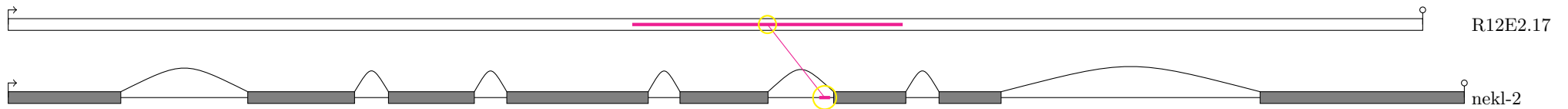
C.Ele  gAGAGAgG  TTGGTTT--ttacactttttctttttt...461...atttttccagt  gcgacaac
C.Bri  gcGAGAgG  TTGGTTT--ttttcgatgatttttatgt...144...aaattttccaga  tcgacaat
C.Bre  gAGAGAgG  TTGGTTTtttttcgctgctttatctt--...127...gaccattccaga  tcgataat
C.Rem  gAGAGAgG  TTGGTTTtttacc--tcgtttttactaa...133...taattttccaga  ttgacaat
* ***** ***** *          ** * *          ** ***          ** **

```

id=63087 gene=F22F7.7 name=F22F7.7 segment=chrV\_2132970\_2133469\_-1 type=IN VIEW

Figure 254: CS=5.8





```

C.Bri aatctgggtttgtgatgactgcatacggatCACTGGGCTCTGAAATTCatgaaacgataaatatccgttctgataccatttta
C.Bre cttacgggtttgtgatgactgcatacggatCACTGGGCTCTGAAATCCatgaaccgataaatatccgttctgataccgtggat
C.Jap ctcggggtgtgtgatgactatttacggatCACTGGGCTCTGAAATTCatgaatcgataaatatccgttctgataccgttttg
C.Rem acaccgggtttgtgatgaccacatacggatCACTGGGCTCTGAAATCTccatgaaccgataaatatccgttctgataccgtttta
      **** *
  
```

id=183453 gene=R12E2.17 name=R12E2.17 segment=chrI.417599-4176066.1 type=EN

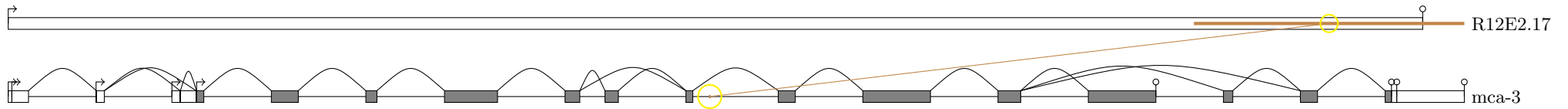
```

C.Bri ttacacaggttcgtttcaaaaacggcaaa---aagagataggtcccaccgagatttgaactcgggtcgcaGGATTCAGAGTCCtgAGTGctaaccactacacatggaa...110...gtacactgcagggaaagct
C.Bre ttacgcaggttaagtggaaaaaagtgtaaa---aagcgataggtcccaccgagatttgaactcgggtcgcaGGATTCAGAGTCCtgAGTGctaaccactacacatggaa...114...atTTTTTgcagggaaact
C.Jap ttacaaaggttcat----aaaatttcaaatcaaaaacgataggtcccaccgaga-ttgaactcgggtcgcaGGATTCAGAGTCCtgAGTGctacccgctacacatggaa...75...agaaagtgtaaaataaagca
C.Rem tcacacaggttaacc---ataaattgc-aa---aagcgataggtcccaccgagatttgaactcgggtcgcaGGATTCAGAGTCCtgAGTGctaaccactacacatggaa...97...gaagagtcgagtcaaatca
* * * * *
  
```

id=154362 gene=ZC581.1 name=nekl-2 segment=chrI.6664197-6664287.1 type=IN VIEW

Figure 256: CS=5.28





```

C.Ele -cactcggg tttgtgatgactgcatacggatcactgggctctgaatctctatgaaccgATAATATCCGTTCTGatac ccgttttt
C.Bri -aatctggg tttgtgatgactgcatacggatcactgggctctgaatattcatgaaacgATAATATCCGTTCTGatac ccatttta
C.Bre -cttacggg tttgtgatgacttcatacggatcactgggctctgaacatccatgaaccgATAATATCCGTTCTGatac ccgtggat
C.Jap -ctcgcggg tgtgtgatgactatttcaggatcactgggctctgaatattcatgaatcgATAATATCCGTTCTGATac ccgttttg
C.Rem acac-cggg tttgtgatgaccacatacggatcactgggctctgaatctccatgaaccgATAATATCCGTTCTGatac ccgtttta
*** * ***** * ***** * ***** * ***** * ***** * ***** * ***** * ***** *

```

id=183453 gene=R12E2.17 name=R12E2.17 segment=chrI.4175999\_4176066.1 type=EN

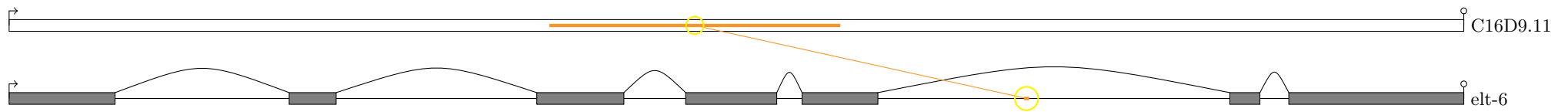
```

C.Ele cgcttctc ggtgagtctgg...78...-----ttgtcaaagtcagtagatgcTGGAAATGGATGTTGTgcaaaaaaaaaaaaaaaga...502...aatccattttca gactcgaa
C.Bri cactgctc ggtgagtattga...112...-----ttgtcacagtcagtagatgcTGGAAATGGATGTTGTgcaacaaaagctgagagttt...193...ataccgtttaca gattcaaa
C.Bre cattgctc ggtgagtgtgt...125...-----ttgtcacagtcagtagatgcTGGAAATGGATGTTGTgcaacaaaagctgagcggtt...192...aatcctcttcca gattccaa
C.Jap cgcttctc ggtgagtatgga...149...attagatcatatcaga-tcag---ATCGGcGAATGGATGTTGTgtagatgagtggaaggtg...230...ttttgtttgca gattccaa
C.Rem cgcttctc ggtgagtattga...127...-----ttgtcacagtcagtagatgcTGGAAATGGATGTTGTgcaacgagagctgagaatt...192...aatcaattttca gattctaa
* * ** ***** * ** * ** * ** * ***** * * ** ** ** **

```

id=62775 gene=Y67D8C.10 name=mca-3 segment=chrIV.3120969\_3121627.-1 type=IN

Figure 257: CS=5.55



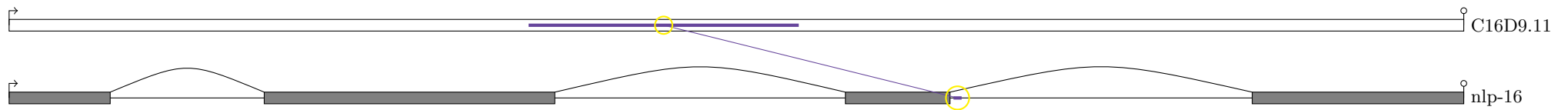
|        |           |          |       |          |                  |               |            |                 |                 |          |
|--------|-----------|----------|-------|----------|------------------|---------------|------------|-----------------|-----------------|----------|
| C. Ele | tacactag- | aaggcccg | tg    | aagacacg | AATTacCGTCtGATAA | cta           | atgacgct-  | accatggctg      | taaaccagaggccga | ttacaaaa |
| C. Bri | -ctgcaggc | aaggcccg | tg    | aagaagta | AATTaCCGTcCGATAA | cccatgacgct-  | atgaaggctg | taaacagaggccga  | tataaaaa        |          |
| C. Jap | -ccatttgc | aaggccag | tg    | aagaaatg | AATTacCGTCtGATA  | cataatgacgcca | attaaggctg | taaaccagaggccga | cagcataa        |          |
| C. Rem | -gcagaggc | aaggcccg | tg    | aagaaacg | AATTaCCGTcGATAAT | cagtgacgtt-   | acaatggctg | taaaccagaggccga | taaaataa        |          |
|        | *         | *****    | ***** | *****    | *****            | *****         | *          | *****           | *****           | * **     |

id=262934 gene=C16D9.11 name=C16D9.11 segment=chrV\_8228880.8228949\_-1 type=EN

|        |          |                 |        |                       |            |        |                        |                 |        |              |          |
|--------|----------|-----------------|--------|-----------------------|------------|--------|------------------------|-----------------|--------|--------------|----------|
| C. Ele | gcataggg | tgagttggctga... | 323... | -tttccgactacgacgactaa | TTATCGATG  | aaAATT | gaat-gg-gttt           | gagtgagtg...    | 634... | caaattttcaga | cacatcgg |
| C. Bri | tcatagag | tgagtttaattc... | 173... | -ggaaaggtcgtttcgactaa | TTATCGATG  | GaAATT | cgaa-atttcg            | tgtgact-cgag... | 765... | caattttttaga | cccatcgt |
| C. Jap | gcatcggg | tgagtggcgcaa... | 154... | -gtaaggtcgtttcgcta    | TATCGATG   | --AATT | gaattggctgactgactgag-- | ...             | 262... | tcttgttcaga  | cccatcgc |
| C. Rem | tcataggg | taagtgagaaaa... | 145... | aagaaaggtcgtttcgacta  | ATTATCGATG | GaAATT | gggt-atcgtctt          | gagt-agta...    | 102... | cctttttcaga  | cacaccgc |
|        | *** * *  | * **            |        | *                     | ** *****   | ****   | *** * *                |                 |        | ** ***       | * ** *   |

id=31006 gene=F52C12.5 name=elt-6 segment=chrIV\_1920022.1921057\_1 type=IN

Figure 258: CS=6.64



```

C.Ele  tacactag- aaggcccgtgaag--acACGAATTACCgtCTGAtaactaatgacgct-accatggctgtaaacagaggccga ttcaaaa
C.Bre  -catcgctc  aaggcccatgaagaaga--GAATTACCgtCTGA-aaacgatgacggtt-accatggctgtaaacagaggccga tatcaaat
C.Jap  -ccatttgc  aaggccagtgaaga--AATGAATTACCgtCTGAtacataatgacccaattaaggctgtaaacagaggccga cagcataa
C.Rem  -gcagaggc  aaggcccgtgaagaaac--GAATTACCgtCTGAtaatcagtgacggtt-acaatggctgtaaacagaggccga taaaataa
*****  *****  ***** * ***** * * ***** * *

```

id=262934 gene=C16D9.11 name=C16D9.11 segment=chrV.8228880.8228949\_-1 type=EN

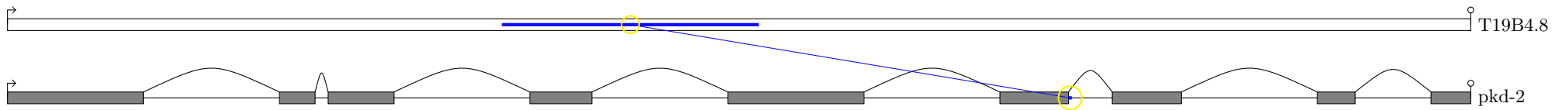
```

C.Ele  tcgaacTC AGtaGGTAcATTGTT---tatcatttgttatcattgtg...748...actccaacattt ttcagcca
C.Bre  tcgaacTC AGtaGGTAcATTT---gttaccacttgttatgtaag---...89...actccttctaatt ttcagcca
C.Jap  tcgaacTC AGtaGGTAcATTGTTattactatcccttacgcgta---...188...ttaattgtcaat ttcagccg
C.Rem  tcgaacTC AGtaGGTAcATTT---attatcatttgttatcattg---...121...acaaatccgatt ttcagcca
*****  *****  ** * **  *****

```

id=19970 gene=T13A10.5 name=nlp-16 segment=chrIV.6255465.6256259\_-1 type=IN

Figure 259: CS=6.24



```

C.Ele aatccctc tggcaatgatcgaattaTCATtGAGCCAATCcttttctgaattctgtgaggatgtaaagataggtctgagcca aattttgt
C.Bri ccacttgc tggcaatgattgaattaTCATtGAGCCAATCcttttctgaactccatgaggatggaaatgataggtctgagcca agtttaat
C.Bre ccacttgc tggcaatgattgaattaTCATtGAGCCAATCcttttctgaactccatgaggatggaaatgataggtctgagcca agtttttg
C.Rem cgcagtgc cggcagtgatcgaattaTCA-TGAGCCAATCcttttctgaacactgtgaggattcatatgataggtctgagcca atgttttg
* **** * ** * ***** * ***** * ***** * ***** * **

```

id=89097 gene=T19B4.8 name=T19B4.8 segment=chrI.5707049\_5707122.1 type=EN

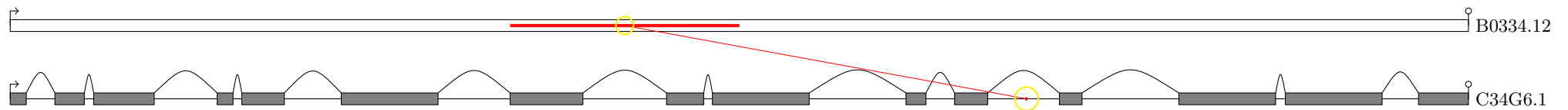
```

C.Ele gATTGGTT TATGAatgtaagttactt--ggtgtacctaactagcgtcggaca:::::gggcgcttggtctaaa--accacaaaatacctc attccaga
C.Bri gATTGGTT CATGAatgtgagtttctgtaaggacatataaat-----:gggagccaagataattgaccccaaa----- gtttcaga
C.Bre gATTGGTT TATGAacgtaagtctct---agggccctcaa-----:---agccaagttgat-----aaa----- attccaga
C.Rem gATTGGTT CATGAatgtgagtagtcttcattcattctcaa-----:---:agtgtccaaattttgcattatcaaaataa--- attccaga
***** ***** ** *** * ** * * **

```

id=43743 gene=Y73F8A.1 name=pkd-2 segment=chrIV.15229705\_15229865\_-1 type=IN

Figure 260: CS=9.16



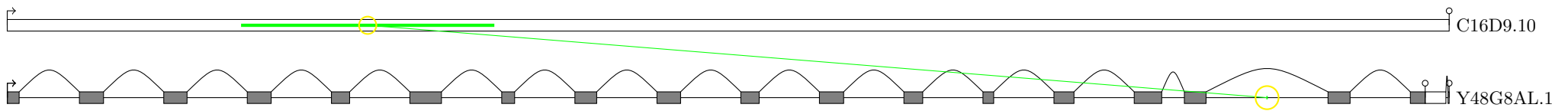
|       |          |                  |                      |                         |                          |          |
|-------|----------|------------------|----------------------|-------------------------|--------------------------|----------|
| C.Ele | gggaaagt | taatcttcacaataac | <b>TCAGTAGCAGAAC</b> | tgatatacacatcaccgattc   | ---ctcgtgcgagaattgaactc  | gcagcggg |
| C.Bri | gggaaagt | taatcttcacaacgct | <b>TCAGTAGCAGAA</b>  | ctggatatacacatcaccgattc | ccttctcgcgcgagaattgaactc | gcacagct |
| C.Bre | gggaaaga | ttatcttcacaacaac | <b>TCAGTAGCAGAA</b>  | ctggatgtaacatcactgattc  | ---cacatgcgagtaccgaactc  | gcatagag |
| C.Jap | gggaaaga | atatcttcacactgat | <b>TCAGTAGCAGAA</b>  | ctggatg-aacatcatcaatcc  | -taagcgcgcgggtgacgaaccg  | gcatcgtg |
| ***** | *****    | *****            | *****                | *****                   | *****                    | *****    |

id=134901 gene=B0334.12 name=B0334.12 segment=chrII.11484619.11484688.1 type=EN

|       |          |                       |                               |                      |                              |              |          |
|-------|----------|-----------------------|-------------------------------|----------------------|------------------------------|--------------|----------|
| C.Ele | gtggaaag | gtgctgatttgc...152... | -----atcattattcgtttataaatt    | <b>GTTTTGCTACTGA</b> | catggcttttgtttgata...139...  | ttttatttacag | atggaaga |
| C.Bri | acggaaag | gtcctgaagaga...54...  | -----aacaattatt--tttatgagta-- | <b>TTTTGCTACTGA</b>  | catggcttttgttaagaatc...53... | aattagtttcag | atggaaga |
| C.Bre | taggcaag | gtgctgacaagt...90...  | tcatcaacaa-----tttatacttt-    | <b>TTTTGCTACTGA</b>  | catggcttttgttcggaatc...54... | ggtgttttcag  | atggagga |
| C.Jap | gcgtcaag | gtgctaaccaga...30...  | -----agtcttcatt--ttcacactat-  | <b>TTTTGgCTACTGA</b> | catggcttttgttcggaata...69... | aatgttttttag | atggaaga |
|       | * **     | ** * * *              | ** *                          | *** *****            | * * **                       | * ** **      | ***** ** |

id=58791 gene=C34G6.1 name=C34G6.1 segment=chrI.5912686.5913055.1 type=IN

Figure 261: CS=5.2



```

C.Ele tc---GAAGGC tGGGAATGATGA ccTTCTg-tGTAGGAA tctcaatgagtg-actgtgacataaaaaatgcagtaaatcactgacc--- caat tttt
C.Bri tcaacctG---- TGGGAATGATGA ctTTCTGTTGTA ggaatctcaatgagcg-actgtgatataaaaaatgcagtaatctcactgacc--- cact tttt
C.Bre ccgpc--G---AG TGGGAATGATGA ttTTCTGTtGTAGGAA tctcogatgagcgtacactgatataaaaaatgcagtaatctcactgacc--- caccacct
C.Rem ----cgGCAAGt TGGGAATGATGA ctTTCTGTtGTAGGAA atctcaatgaacg-actgtgatataaaaaatgcagtaatcactctgacc--- caat tttt
* ***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=43148 gene=C16D9.10 name=C16D9.10 segment=chrV\_8247868.8247941.-1 type=EN

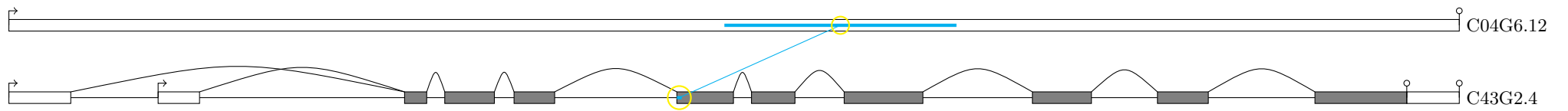
```

C.Ele tagagatg tagagagat ttt...3162...-----tgtgtgtgtgtctctctctc--TTCTGTGGAATCATgCGTTTTCGTTTTCaat atgtgtgtgtgtgtgtg---...1734... ttaaattt--caga tactgatg
C.Bri tagagaag tgcgttgat ttt...1652...atccaacataaaattgaag-----TGTGtATGGAATCATgCGTTTTCGT----tctgtgtgtcgacacgacgg---...1786...--aaatttgcagc tggtgacc
C.Bre tagagatg tgagtttctgt...2267...-----atctgaagtgtctctctctcTTTCTATGTGGAATCATgCGTTTTCATTC----cgacacacacacgacggtaa...1564...gtttttt--cagc taatggtc
C.Rem cagagatg tgggtttcagt...813...-----atctgaagtatgtctgtg--TCTGTGTGGAATCATgCGTTTTCGtTTTGT--gtgtgtcgacacgacggtaa...816...cccatttt--cagc tcgtcgac
***** * ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=251659 gene=Y48G8AL.1 name=Y48G8AL.1 segment=chrI\_1247961.1253334.1 type=IN

Figure 262: CS=5



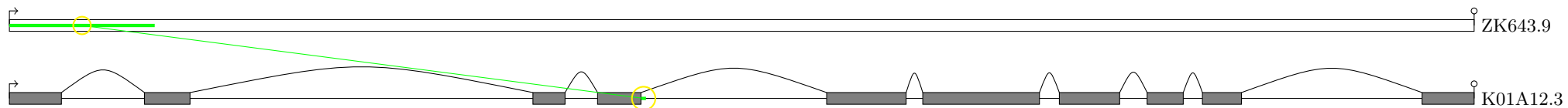
|       |          |                               |           |        |                                     |                              |          |
|-------|----------|-------------------------------|-----------|--------|-------------------------------------|------------------------------|----------|
| C.Ele | tagttcaa | cccgcctgcagtcgaggaggaaagtttcc | ATGCACCAc | TCTGA  | agGATA                              | gtgtggattatggttcacaatt--tact | gaggctgt |
| C.Bri | gcgttcaa | taccctcacagtcaaggaggaaagtttcc | ATGCACCAc | TCTG   | aatgatagtggtgattatggttcacattga-aact | gaggctgt                     |          |
| C.Bre | tcgtctcc | ccctcgcgcagtcgaggaggaaagattcc | ATGCACCAc | TCTGAA | tgatagtggtgattatggttacacattgataact  | gaggctgt                     |          |
| C.Rem | gtgttcga | cacccccacagtctaggaggaaagtttcc | ATGCACCAc | TCTG   | aaTGATaatgtggattatggttcacaatt--aact | gaggctgt                     |          |
|       | **       | * * * *****                   | *****     | *****  | *****                               | *****                        | *****    |

id=77065 gene=C04G6.12 name=C04G6.12 segment=chrII.5105148.5105222\_-1 type=EN

|       |          |   |              |       |       |
|-------|----------|---|--------------|-------|-------|
| C.Ele | aaggttag | tttgaagtagag...253...-----ttcaattcaaggtttatcaa    | TATTCAGATGGT | gGCGT | caa   |
| C.Bri | gagtgtag | tcatttttaaaa...52...----gattctaaacatctcttttc----- | CAGATGGT     | gGCGT | caa   |
| C.Bre | cagtgtag | atacaggttag...194...tgacgtttccacgaataact-----     | TTCAGATGGT   | gGCGT | cag   |
| C.Rem | cagtgtag | tcaaatcgaaaa...26...----tctatccgcaatactttcga--    | ATTACAGATGGT | gGCGT | caa   |
|       | *** *    | * * * *****                                       | *****        | ***** | ***** |

id=185694 gene=C43G2.4 name=C43G2.4 segment=chrIV.6563051.6563348\_1 type=IN

Figure 263: CS=5.52



```

C.Ele  gCTCtcCA GCTCCATgcc-gatgtaaaaaagtcagt-...92...--tgttttccagta ttatatgt
C.Bre  gCTCtcCA GCTCCATact-aacgtaag-aagtcagtg...87...gattgtttttttttc tt--ttt
C.Jap  gCTCtcCA GCTCCA t gctagacgta--cattcagtc...101...--tgtttttctttt ttggacat
C.Rem  gCTCtcCA GCTCCATgcc-gacgtaagaaagtcagt-...97...--ttttctgtaatt tttcatct
***** ***** * * *** * ***** * * * * * ** *

```

id=123192 gene=ZK643.9 name=ZK643.9 segment=chrIII.8937690-8937820.1 type=EN

```

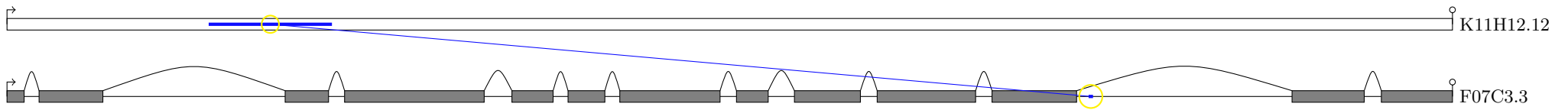
C.Ele  aTGGaCaG CTGGAGTggtcagtgtttaactgcaaa...703...aaagtaa-ttcat attttcag
C.Bre  aTGGaCaG CTGGAGTggtcagtggtttttgtatg...172...gaaccaatacaat g-tttcag
C.Jap  cTGGaCaG CTGGAGTggtcagtatTTTgtttat...47...-atcaaatatcat actttcag
C.Rem  aTGGaCaG CTGGAGTggttagtgTTTTgagcacia...133...-aagtaattttt ctctccag
***** ***** * * * * * * * * * * * * * * * * * * * * * * *

```

id=124205 gene=K01A12.3 name=K01A12.3 segment=chrX.8622372-8623113.-1 type=IN

Figure 264: CS=6.12





```

C.Bri -----taggtagtatgccacagTGTCTGGGCAAAgtaggctgtttttaatagta...77...attgcgacaattcttataac
C.Bre  tggaaatctagaatgtagtccgccacagTGTCTGGGCAAAgtaggctgtttttaatagta...77...attgcgacaagtgtatcatt
C.Jap  -----gattg-attatgccacagTGTCTGGGCAAAgtaggctgtttttgatagta...77...attccaacaaacaaaataaa
C.Rem  -----gtaaaacgttttgggccacagTGTCTGGGCAAAgtaggctgtttttaatagta...76...attgcgacaagtaaatttac
          * * * *****

```

id=65039 gene=K11H12.12 name=K11H12.12 segment=chrIV.653902.654030\_-1 type=EN

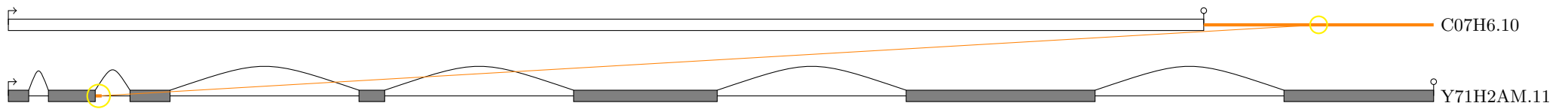
```

C.Bri  agcagaaaaaggt-----aagagaagaaaaaca---aaaacaTTGaCCCAGGCAGgggatcgaacctgcaatctt...120...ttggac--ttcttcaggatca
C.Bre  atcagaaaaaagt-----aagtaaaaatggcaaaataTTGaCCCAGGCAGgggctcgaacctgcaatctt...219...--aattaattcttcaggacca
C.Jap  aacaaaagaaggt-----aatttaattttcaaa-----aaaacaTTGaCCCAGGCAGgggctcgaacctgcaatctt...116...ttcaat--gctttcaggatca
C.Rem  accagaaaaaggttaatatatttgaatacaaaaagattaaaaaaagataaaagaTTGaCCCAGGCAGgggctcgaacctgcaatctt...138...--caaccgtatttacaggatca
          * * * * *

```

id=8892 gene=F07C3.3 name=F07C3.3 segment=chrV.9228127.9229886\_-1 type=IN

Figure 265: CS=8.72



```

C.Ele  agtttgac taaataattgc...34...agttatgtgaagag-ataatTGAAGAACggAT ATCTGAGc
C.Bri  aaattaac tagtaaattaga...40...---ttcgtgtagagaattattaa-GAACggAT ATCTGAGc
C.Bre  agtataat gattataatcaa...36...---tctcgtgaggag-ataattaa-GAACggAT ATCTGAGc
C.Rem  agtatcaa ttattgactagt...39...---accatgaggag-ataattaa-GAACggAT ATCTGAGc
      * * *          * *          ** *** ** * * * ***** *****

```

id=65305 gene=C07H6.10 name=C07H6.10 segment=chrIII.7496511-7496588.-1 type=EN

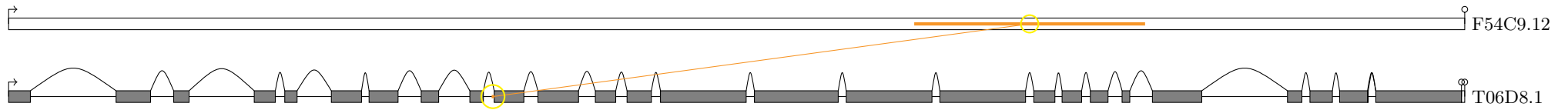
```

C.Ele  gGCTCGcG ATGTgaGTTCaTTTAtactcataaaaagtcactt...45...ttctctcatttc agcaatta
C.Bri  gGCTCGcG ATGTaaGTTcattcagactcat-taaagtgc----...98...ttttcttattcc agcaattg
C.Bre  gGCTCGcG ATGTgaGTTcaaccagtctcat-taaagtgc----...79...acgtttcatttt agcaacta
C.Rem  gGCTCGcG ATGTaaGTTcattcagactcat-taaagggc----...91...acgttttattta agcaattg
***** **** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

```

id=40805 gene=Y71H2AM.11 name=Y71H2AM.11 segment=chrIII.2724763-2724854.-1 type=IN VIEW

Figure 266: CS=6.08



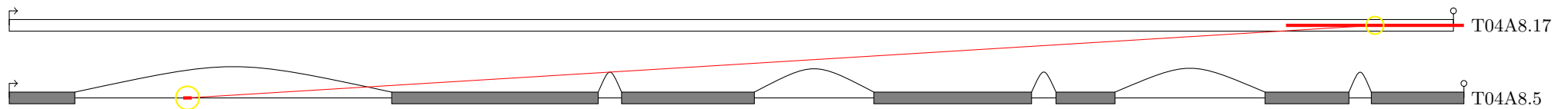
|       |          |  |                        |                               |          |
|-------|----------|--|------------------------|-------------------------------|----------|
| C.Ele | ttaaataa | actta---gaagatgtttgtgaaaaagtgcgatgaatgacttgg | TAAGTTTCGGCTGAAAcTTGG  | ---tgatgccaaacttttta-aa       | actgctga |
| C.Bri | ttataaaa | gtt-----aaatgtgcaatgactgacttgg               | ATAAGTTTCGGCTGAAAcGTCA | cacttgatgccaaacttttaagaa      | tttgctg- |
| C.Bre | gggggaaa | acgta---aaaatgggactgaaaaacgtgcgatgactgatttg  | ATAAGTTTCGGCTGA        | --ctgctttttgatgccaaactttt--at | tttgctga |
| C.Rem | ----ata  | actcattttgaaaaaaga-tgaaaaa-gtgcgatgactgatttg | ATAAGTTTCGGCTGA        | ---taattattgatgccaaactttga-at | attgctga |
|       | *        | **   | *** **                 | *****                         | ***** *  |

id=240560 gene=F54C9.12 name=F54C9.12 segment=chrII.8560640.8560721.-1 type=EN

|       |                   |  |                   |              |             |          |
|-------|-------------------|--|-------------------|--------------|-------------|----------|
| C.Ele | gttttgtc-----     | ttggttaactt---tatgttcagca---tcccctcat        | TGACaTTTCAGTgCGAA | tGCTTG       | cgctcgc     | ttctgttt |
| C.Bri | attctgttggtgcacaa | tcggttgccctgccttgtttgtgcatctctcctcatt        | TGAC              | TTTCAGCgCGAA | tGCTTGT     | gcgcgc   |
| C.Bre | aaagtffc-----     | ttggttaactc---tcagtttg-----cccttcatt         | TCAGCgCGAA        | tGCTTGT      | gcgcgc      | ttctgttt |
| C.Rem | aagacact-----     | tcggttccctc---tcagttctg-----cctcttcattgacttt | TCAGCgCGAA        | tGCTTGT      | gcgcgc      | ttctgttt |
|       |                   | * **   | *** *             | *****        | ***** ** ** | *****    |

id=23026 gene=T06D8.1 name=T06D8.1 segment=chrII.11208745.11208807.1 type=IN VIEW

Figure 267: CS=5.2



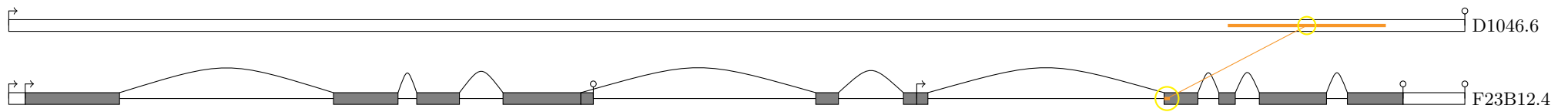
|        |      |         |               |               |                |               |         |
|--------|------|---------|---------------|---------------|----------------|---------------|---------|
| C. Ele | a--- | TCTCTAC | ATACGCGTCATT  | ...112...     | GGGAGTTTACACT  | TTTGCCT       | t       |
| C. Bri | a    | AACTCG  | ---C          | CTACGCGTCTTTT | ...115...      | GGAAGTTTACATT | TTTTCAA |
| C. Bre | t--- | CTTTCAA | ACACGCGTCATT  | ...115...     | GGGAGTTTACACT  | TTTGCGA       | a       |
| C. Rem | a--- | TCGGAAC | CTACGCGTCTTAT | ...112...     | GGAAGTTGACAAT  | TTTGGTT       | t       |
|        |      |         | ***** * *     |               | ** **** * ** * | ***           |         |

id=89717 gene=T04A8.17 name=T04A8.17 segment=chrIII.4689599.4689736.-1 type=EN

|        |          |                       |                           |                      |           |                      |                             |           |              |          |
|--------|----------|-----------------------|---------------------------|----------------------|-----------|----------------------|-----------------------------|-----------|--------------|----------|
| C. Ele | aacacagg | tggggttttaag...159... | ttaagccatcgttccacaa-g---- | AAAGCAAAGTGTAAACTCC  | ...114... | AATGACGCGTATGTAGAGAT | --tgaactggcgtctcgtgggt----  | ...246... | atattttgcaga | ggaactga |
| C. Bri | aacacagg | tttgactttttt...47...  | -ttcgtagaccctgtagaata---- | TTTGAAAAATGTAAACTTC  | ...117... | AAAGACGCGTAGCGAGTTT  | ---gaactcgcgacccacaaatg---  | ...543... | ataattttcaga | ggtacaga |
| C. Bre | aacacagg | tattcattcttt...187... | -----ccacttttcataataacaat | TTCGCAAAGTGTAAACTCC  | ...117... | AATGACGCGTGTGAAAGA   | agtgaactagtaactcgcga-----   | ...287... | ataatttttaga | ggaaccga |
| C. Rem | aacacagg | ttcgtaatntag...227... | attcaaaaacattgtaaaa-a---- | AAACCAAATTTGTCAACTTC | ...114... | TAAGACGCGTAGGTTCCGAT | -----cagtgatctatatattact... | ...281... | tttgtttcaga  | ggaaccga |
|        | *****    | *                     | *                         | *                    | *         | *                    | *                           | *         | *            | *        |

id=281571 gene=T04A8.5 name=T04A8.5 segment=chrIII.4689400.4690022.1 type=IN VIEW

Figure 268: CS=5.72



|       |          |  |            |           |          |           |                 |                 |              |
|-------|----------|--|------------|-----------|----------|-----------|-----------------|-----------------|--------------|
| C.Ele | ccgcccgc | gcc-tagaaactc...66...-cgtccaccttctgaagggtg | TGCGTT     | aaAAGT    | CATC     | cGAACAA   | -----           | tttatca         | cttttaa----- |
| C.Bri | ccggccgc | gccttgaaact-...67...-cgttcaccttccaaagggtg  | TGCGTT     | aaAAGT    | CATC     | -----     | cgaacagtttttgct | ttttcct-----    |              |
| C.Bre | cccctcgc | accattgaaact-...66...gcgttcacctt-caacgggtg | CGCGTT     | aaAAGT    | CATCTGGA | -caagt-gt | tttttgca        | tttttcatccttcaa |              |
| C.Rem | catgcagc | acc-tagaaactc...66...-cgtccaccttctgagggtg  | TGCGTT     | aaAAGT    | CATC     | cGAACAA   | tcTTAA          | ttttgtt         | tctcga-----  |
|       | *        | **   | ** * ***** | *** ***** | * *****  | *****     | ***             | **              | **           |

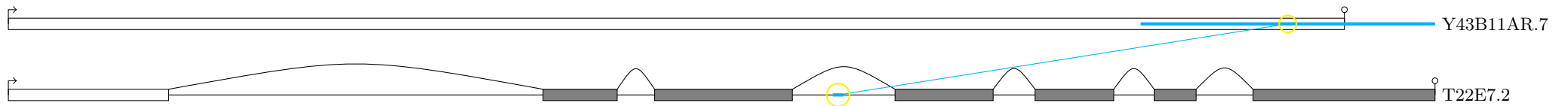
id=2954 gene=D1046.6 name=D1046.6 segment=chrIV.8927252-8927380.1 type=EN

|       |          |   |              |          |          |          |
|-------|----------|---|--------------|----------|----------|----------|
| C.Ele | ggtatgga | aatcatgcatag...1236...gt---gttctagtcttagttgcc-      | TTGTTc       | GATGGCTT | ccAACGTg |          |
| C.Bri | ggtatgga | aatcatgcatag...464...-----tttctagttttgctcattca----- | GATGGCTT     | ccAACGTg |          |          |
| C.Bre | ggtatgga | aatcatgcatag...279...-----tctagtcttagttgcctca       | TTCAGATGGCTT | ccAACGTg |          |          |
| C.Rem | ggtatgga | aatcatgcatag...153...tttctgtttcttagttctagt          | TTGA         | cTTGTTc  | GATGGCTT | ccAACGTg |
|       | *****    | *****   | *****        | * *      | *****    | *****    |

id=36241 gene=F23B12.4 name=F23B12.4 segment=chrV.14443367-14444649.1 type=IN

Figure 269: CS=5.04





```

C.Bri aaaggctaaaggagaatgagggtcgggggccacgagggtcgtaaaagtcCGGCTaaGTTGGTT---gctaaaatcg
C.Bre aaaggctataggagtatgaaggtcgggggccgcgagggtcgtaaaagtcCGGCTaaGTTGGTT---gctaataatcg
C.Jap gaaggctaaaggagcatgaaggtcggggaccgcgagggtcgtaaacatcCGGCTaaGTTGGTTCCacattaaaa---
C.Rem gaaggctaaaggagaatgaaggtcgggggccgcgagggtcgtaaaagtcCGGCTaaGTTGGTT---gctaaaataag
*****  *****  *  *****  *  *****  *****  *****  *****  *****  *****  *****  *****  *****  *****  *****

```

id=77301 gene=Y43B11AR.7 name=Y43B11AR.7 segment=chrIV.7083861\_7083919.-1 type=EN

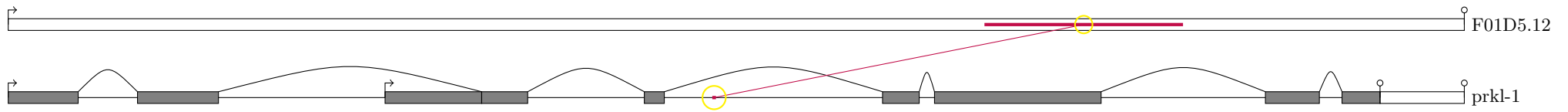
```

C.Bri aattacaagtaagtattacaaaaaaaaacttcaaaaaagaattgcatcgaccgggAATCgAACCCgGGCCGcccgcgtggcaggcgagcat...58...aattgtttgcaggccatttg
C.Bre aattataggttaagttgcaaaaagaa-----aaaaaagaattgcatcgaccgggAATCgAACCCgGGCCGcccgcgtggcaggcgagcat...48...ctttatgtcaggccatttg
C.Jap aactacaggtaa-----aaaagga-----aaaaaagaattgcatcgaccgggGAATCgAACCCgGGCCGcccgcgtggcaggcgagcat...64...ctctccttcaggccattcg
C.Rem aattataggttaagt-----gaag-----caaacgaattgcatcgaccgggAATCgAACCCgGGCCGcccgcgtggcaggcgagcat...37...caaagttgcagaccattcg
** * * * ****

```

id=250978 gene=T22E7.2 name=T22E7.2 segment=chrI\_5767336\_5767472.1 type=IN

Figure 271: CS=6.16



|       |          |                                  |                                    |          |      |                           |          |
|-------|----------|----------------------------------|------------------------------------|----------|------|---------------------------|----------|
| C.Ele | tattacgt | tcg--cgagcctttctttc              | ttaacacgtctggtgaggatgaaaacaggacag  | GTTTCGCT | AAAT | -attaccgaatgccaatatgtcgag | acaccttg |
| C.Bri | tgatagg  | tcgctcggcaacttctatt              | -ccttacgtctggtgaggatagaaaaaggaca   | GTTTCGCT | AAAT | actagccgaacgccaacatgtagag | acaccttg |
| C.Bre | aactacct | ctg--ccactcaaacttccaactctacgtctt | gtgaggataaagaaggacag               | GTTTCGCT | AAAT | aatagcogaacgccaacatgtagag | acaccttg |
| C.Rem | t---ggg  | tcgaccg--caagtcttg               | caactcagctctggtgaggagagaaaaaggacag | GTTTCGCT | AAAT | aatagctgaacgataaatgtcgag  | acaccttg |
|       |          | * *                              | *****                              | *****    | * *  | *****                     | *****    |

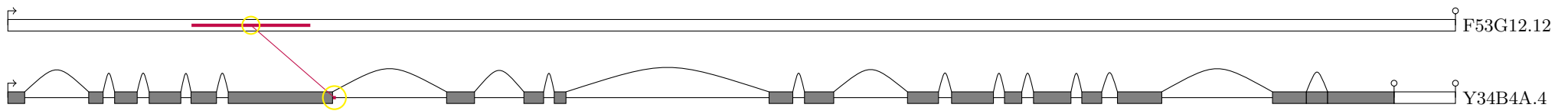
id=188085 gene=F01D5.12 name=F01D5.12 segment=chrII\_14018280\_14018367\_-1 type=EN

|       |          |                       |                      |                |                                |               |         |
|-------|----------|-----------------------|----------------------|----------------|--------------------------------|---------------|---------|
| C.Ele | caagtgtg | atgaggtgagta...104... | gcaaacttttatgatagcgg | ATTGTTGTTGAAAC | -accaagcgcggcggttga...2176...  | -atatctttgatt | tccagtc |
| C.Bri | aaagtgtg | atgaggtttgtt...111... | aaggattttatgatagcgg  | ATTGTTGTTGAAAC | aaaagtcttctggtgtagagg...532... | -aaatctctattt | tccagtc |
| C.Bre | aaaatgtg | atgaggtgagca...118... | caaacttttatgatagcgg  | ATTGTTGTTGAAAC | aaaacttttgggtggagg...379...    | caaatctaa-cat | tccagtc |
| C.Rem | aaaatgtg | acgaggtatgta...131... | caagaattttatgatagcgg | ATTGTTGTTGAAAC | -attagtttttcgaaaggaga...390... | ccaatccct-tct | tccagtc |
|       | ** **    | * **                  | *****                | *****          | * *                            | **            | * **    |

id=21407 gene=ZK381.5 name=prkl-1 segment=chrIV\_6980545\_6982900\_-1 type=IN

Figure 272: CS=7.16





|       |          |           |                  |  |           |
|-------|----------|-----------|------------------|--|-----------|
| C.Ele | aacagaaa | atgctcttc | AAAAGCACTGGT     | tttaggatccactattatcc...81...acgatgacaatt | cgaaattt  |
| C.Bri | cacatact | atgctctt  | TAAAAGCACTGGT    | tataggactctgacttgcc...81...acgatgacaatt  | ctagtttt  |
| C.Bre | gaatttca | atgc      | TCTTCAAAGCACTGGT | tataggatccattattatcc...81...acgatgacaatt | tacaagtc  |
| C.Rem | aaattaga | ttgctcttc | AAAAGCACTGGT     | tttaggatccattattatcc...81...acgatgacaatc | tatttttag |
|       | *        |           | *****            | *****                                    | *****     |

id=171939 gene=F53G12.12 name=F53G12.12 segment=chrI\_111292.111425.1 type=EN

|       |       |        |           |   |               |
|-------|-------|--------|-----------|---|---------------|
| C.Ele | at    | ACCAgG | TGTgTTTT  | -----acacgatgcaatgtgagcca...1087...attatthtcagg       | gtgctgcg      |
| C.Bri | at    | ACCAgG | TGTgTTTTA | -----caactgggagagagagggtt-...116...taggattccagg       | gtaccgca      |
| C.Bre | at    | ACCAgG | TGTgTTTT  | acGAGGAaaagctgccgagggttaaag-----...117...tagatthtcagg | ggacatcg      |
| C.Rem | at    | ACCAgG | TGTgTTTT  | -----acacaaagagaaccgcta...132...tatcgthtcagg          | gcacatca      |
|       | ***** |        | *****     |   | ** **** * * * |

id=139351 gene=Y34B4A.4 name=Y34B4A.4 segment=chrX\_5265764\_5266890.1 type=IN

Figure 273: CS=7.04