

**Fig. S7** Conservation of differentiation regulatory program in opossum and worm. (a) Orthologs of differentiation genes in opossum RNASeq data (brain, heart and liver at different developmental time points. The orthologs of *Drosophila* Early and Late genes cluster separately regarding gene expression along opossum tissue development using self-organizing maps. (b) Orthologs of differentiation genes in worm RNASeq data (neuron, intestine, muscle, hypodermis and pharynx at different developmental time points. The orthologs of *Drosophila* Early and Late genes cluster separately regarding gene expression along worm tissue development using self-organizing maps.