



**Figure S2 *hda-1::gfp* expression profile in *C. elegans* and *C. briggsae* during development**

(A) Snapshots of *C. elegans* and *C. briggsae* genomic regions showing gene models of *hda-1* and upstream genes. The regions used to make the *hda-1::gfp* reporter constructs are shown. (B-O) Expression pattern of *hda-1::gfp* during development. (B, C, F, G, J-O) *C. elegans hda-1::gfp* (*bhEx72*); (D, E, H, I) *Cbr-hda-1::gfp* (*bhEx68*). *hda-1* expression in embryos begins approximately 4 to 5 hrs after fertilization, towards the end of gastrulation. Expression appears to be

uniform and is observed predominantly in the head region. By the 2-fold stage, expression appears to be down regulated and confined to relatively fewer cells (J, K). In an L2 larva, bright *hda-1::gfp* fluorescence is visible in the ventral cord region. Based on their location and size, many of these cells appear to be neurons, although their exact identity is unknown. (L-O) An L4 animal shows fluorescence in the head ganglion and a subset of cells in the tail region. The anterior plane is oriented towards the left in all cases, except in E and I where it is reversed.