**Supplementary Table 2: Neuroanatomical analysis**

**Neurons ctrl Heat F1 Heat F2 Heat F3 Starvation Maternal Age**

**AVKA**  0% 1%n.s 1%n.s 2%n.s 0%n.s 0%n.s

**PVPA**  7% 17%\*\* 17%\*\* 15%\* 5%n.s 28%\*\*\*

**PVQA** 5% 16%\* 27%\*\*\*\* 29%\*\*\*\* 9%n.s 24%\*\*\*\*

**HSNA** 5% 15%\*\* 14%\*\* 17%\*\*\*\* 5%n.s 9%n.s

**HSNB** 4% 16%\*\* 15%\* 12%n.s 14%\*\* 7%n.s

**VD&DDC** 28% 38%n 34%n.s. 28%n.s 31%n.s 24%n.s

**ALMD** 0% 0%n.s 1%n.s 0%n.s 0%n.s 0%n.s

**AVME** 0% 1%n.s 1%n.s 0%n.s 0%n.s 0%n.s

**PLMD** 3% 5%n.s 5%n.s 2%n.s 7%n.s 4%n.s

**PVME** 3% 8%n.s. 4%n.s 1%n.s 7%n.s 4%n.s

**A**Axons fail to respect the ventral midline and defasciculates

**B**Cell bodies fail to reach position at midbody before the vulva

**C**Axons extends commissures on the on wrong side of the animal

**D**Axons defasciculate and extend towards the ventral or dorsal nerve cord

**E**Cell body misplaced from its ventral sublateral position and/or axon extends posteriorly or anteriorly before reaching the ventral nerve cord