

Table S2 Expression of *nanos2* in tissues of *L. variegatus* (Lv), *S. purpuratus* (Sp) and *M. franciscanus* (Mf). Values are given as the threshold cycle (Ct) for qRT-PCR. An average of 2 replicates of pooled cDNA from Lv (n=12), Sp (n=12) and Sf (n=10) were used for Aristotle's lantern muscle (ALM), esophagus (ES), radial nerve (RN) and coelomocytes (Coel). An average of 2 replicates of pooled cDNA from Lv (n=12) and Sp (n=3) tube feet (TF), and Lv (n=8) and Sp (n=3) spines. An average of 2 replicates of pooled cDNA from gonad (male, female and a mixture of male and female, n=2 for all species). Some tissues were not available for testing (ND).

	Lv – Ct	Sp – Ct	Mf – Ct
ALM	32.5	32.4	33.6
ES	34.5	33.5	32.5
RN	30.7	31.5	33.6
Coel	32.3	30.7	ND
TF	35.3	36	ND
Spines	34.9	32.9	ND
Female Gonad	20.4	21.2	21.3
Male Gonad	24.1	26.0	23.5
Gonad (mix)	21.6	22.1	21.5