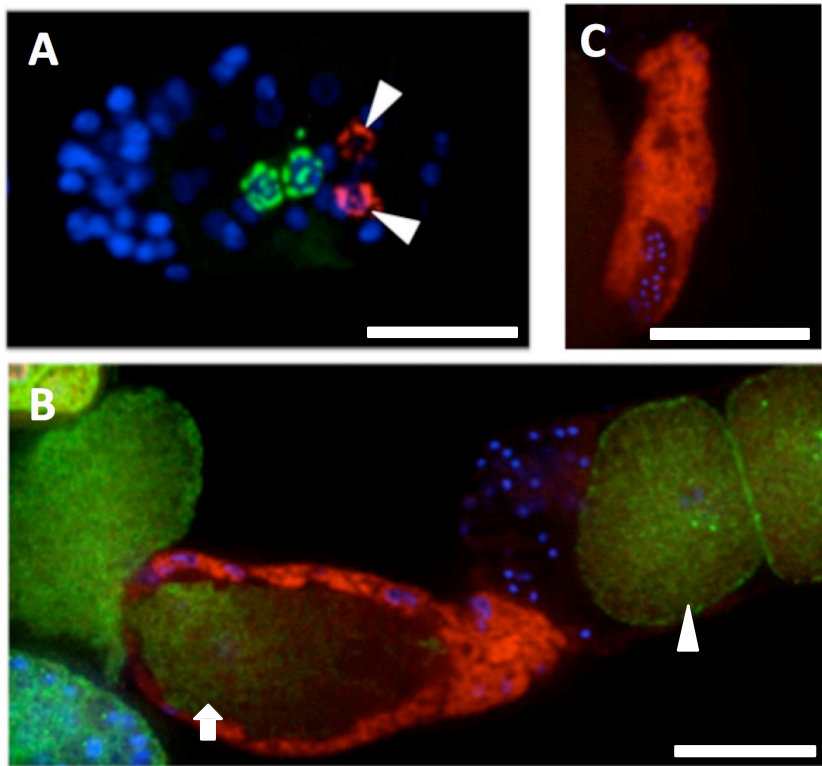


swt-3 transcripts are expressed in Z1/Z4 during embryogenesis and in the adult spermatheca

Dustin Updike

Mount Desert Island Biological Laboratory; Salisbury Cove ME, United States of America



Description:

Stellaris smFISH probes targeting *swt-3*, an ortholog of the human solute carrier transporter SLC50A1, are shown in red (Cal Fluor 610), DAPI in blue, and PGL-1::GFP, a marker for P granules, in green. A) *swt-3* transcripts are expressed in Z1/Z4 cells during embryogenesis (arrowheads). The embryo shows Z1 and Z4 migrating to Z2/Z3 P granule cells (marked with PGL-1::GFP in green). B) A dissected proximal gonad of a young adult capturing the ovulation of a recently fertilized zygote (arrow) as it passes through the *swt-3* expressing spermatheca (red). Proximal oocyte marked with arrowhead. C) Sperm nuclei (blue) within the *swt-3* (red) spermatheca. Scale = 20μm. The experiment confirms and extends *swt-3* enrichment in cell-specific Z1/Z4 mRNA profiling experiment reported by Kroetz & Zarkower 2015.

Reagents

The Stellaris *swt-3* smFISH probe contains 48 oligos labeled with Cal Fluor 610 (sequences available upon request). Staining was performed as described by Ji and van Oudenaarden (2012). In short, PGL-1::GFP embryos and dissected germlines were fixed with formaldehyde and ethanol. Hybridization was done in the dark at 37°C for four hours. Cal Fluor 610 coupled probes were designed with the Stellaris Probe Designer from Biosearch Technologies.

References:

Ji N. and van Oudenaarden A. Single molecule fluorescent *in situ* hybridization (smFISH) of *C. elegans* worms and embryos (December 13, 2012), *WormBook*, ed. The *C. elegans* Research Community, WormBook, doi/10.1895/wormbook.1.153.1, <http://www.wormbook.org>.

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Kroetz MB, Zarkower D. Cell-Specific mRNA Profiling of the *Caenorhabditis elegans* Somatic Gonadal Precursor Cells Identifies Suites of Sex-Biased and Gonad-Enriched Transcripts. *G3* (Bethesda). 2015 Oct 23;5(12):2831-41. doi:10.1534/g3.115.022517. PubMed PMID: 26497144; PubMed Central PMCID: PMC4683654.

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