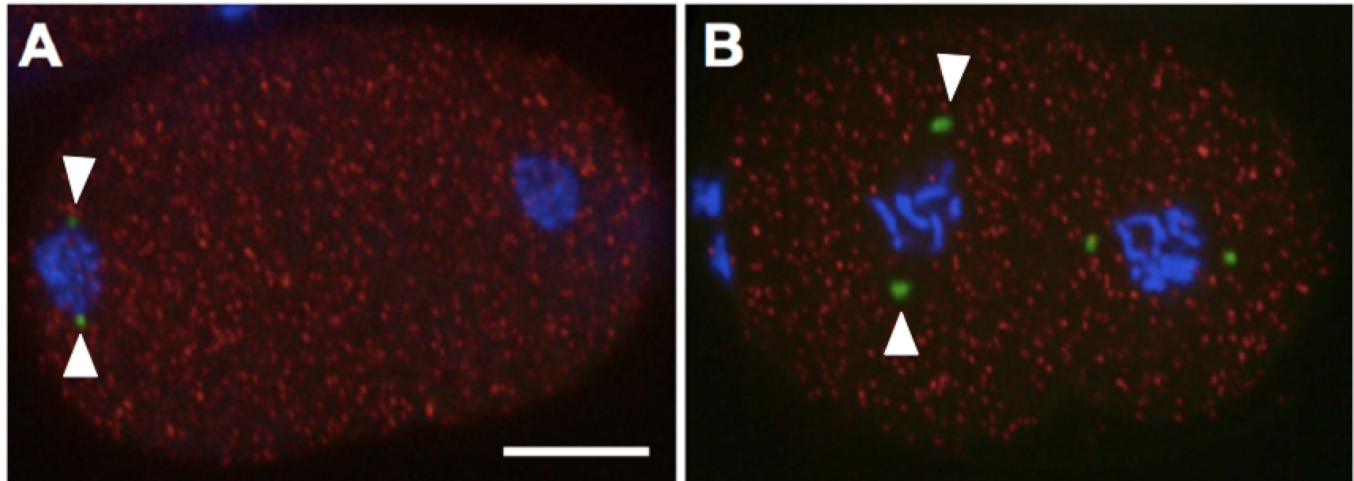


Localization of *tbg-1* mRNAs and GFP::TBG-1 protein in Early *C. elegans* Embryos

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Description

tbg-1 encodes gamma-tubulin, a ubiquitous and highly conserved component of centrosomes in eukaryotic cells (Strome *et al.*, 2001). Using smFISH we determined the localization of *tbg-1* transcripts (red). *tbg-1* transcripts are detected within distinct foci throughout the cytoplasm during both the first (A) and second (B) mitosis. *tbg-1* transcripts are not enriched at centrosomes or either blastomere. In contrast, GFP tagged *TBG-1* proteins (green signal; arrowheads) localize at centrosomes, as previously shown (Strome *et al.*, 2001). Shown are projections from selected focal planes. Bar=10μm.

New Findings: The first observation of *tbg-1* mRNA localization in early *C. elegans* embryos.

Reagents

RNA probes targeting *tbg-1* mRNAs (Quasar 670; red) were designed using Stellaris Probe Designer (Biosearch Technologies). smFISH was performed as described previously (Osborne-Nishimura *et al.*, 2015; Shaffer *et al.*, 2013). For hybridization, embryos were incubated with *tbg-1* RNA probes (Quasar 670) at 39°C for four hours in the dark. Following hybridization, the embryos were washed and mounted with DAPI containing (blue) medium. To visualize centrosome-associated *TBG-1* protein, we used transgenic strain that expresses GFP::*TBG-1* (TH27; Hannak *et al.*, (2002), green).

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