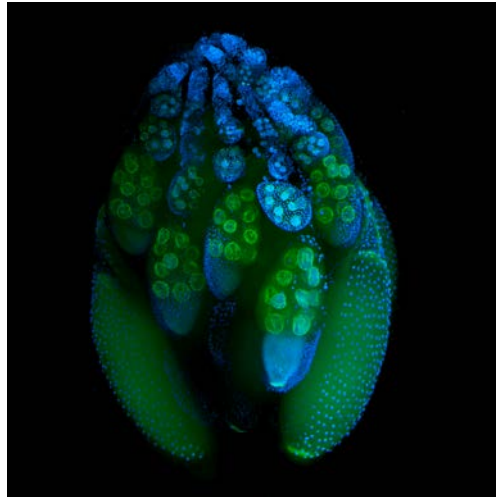




## Mechanisms of mitochondrial inheritance and function in germline stem cells



Unique among organelles, mitochondria contain their own genomes, and are inherited maternally through mechanisms that are not well understood. Using *Drosophila* as a model, my research investigates the mechanisms of mitochondrial inheritance and the roles mitochondria play in germline development. First, we identify a mechanism that anchors mitochondria to the oocyte posterior—the site of primordial germ cell formation—ensuring mitochondria are passed on to subsequent generations. Second, through a transcriptome-wide *in vivo* RNAi screen, we show that the mitochondrial ATP synthase plays an unexpected, non-canonical role in early germline stem cell differentiation through inner mitochondrial membrane remodeling.

### Dr. Thomas Hurd

NYU School of Medicine  
(Candidate for Faculty Appointment)

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Host: Dr. Marc Meneghini

**Date:** Wednesday February 15, 2017

**Time:** 11:00 a.m.

**Place:** Red Seminar Room  
Donnelly CCBR