Dr. Terry Orr-Weaver
Member, Whitehead Institute and
Professor of Biology, Massachusetts Institute of Technology
http://orr-weaverlab.wi.mit.edu/

“Developmental Regulation of DNA Replication to Control Cell Size and Gene Copy Number”

Orr-Weaver Lab:

Coordination of cell growth and division with development, with particular focus on the oocyte-to-embryo transition, control of cell size, and regulation of metazoan DNA replication.

Proper development from a single-cell fertilized embryo to an adult requires the generation of the right number and size of cells of the appropriate type, arranged with correct patterning. Our research goal is to understand the developmental control of cell division and cell size. We are investigating the transition through which an oocyte becomes an embryo: how the proteome is altered to permit this profound change by alteration of mRNA translation and protein stability, the regulators responsible, and how this leads to cell cycle changes from meiosis to embryonic mitosis. Other goals are to delineate the coordination of cell size between tissue layers and the regulation of replication origin activation and replication fork progression.

Refreshments served outside the Auditorium at 3:20pm
Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at http://www.gs.washington.edu/news/seminars.htm

The University of Washington is committed to providing access, equal opportunity and reasonable accommodations in its services, programs, activities, education and employment of individuals with disabilities. To request disability accommodations contact the Disability Services Office at least ten days in advance at: 206.543.6450/V, 206.543.6452/TTY, 206.685.7264 (FAX), or e-mail at dso@u.washington.edu