



Genome Sciences Seminar

Wednesday, 3.1.17 | 3:30 | Foegen Auditorium



Dr. Laura Landweber

Professor of Biochemistry & Molecular Biophysics and Biological Sciences, Columbia University

<http://biology.columbia.edu/people/landweber>

“RNA-guided Large-Scale Genome Rearrangement in the Ciliate *Oxytricha*”

Landweber Lab:

I study the origin of novel genetic systems in microbial eukaryotes, bringing a strongly mechanistic approach to understanding evolution and genome diversity. My lab has shown that the surprisingly sophisticated variations on DNA and RNA processing in microbial eukaryotes create an imaginative playground for genome architecture and genetic systems. Some of their pathways erode the notions of a gene (e.g. scrambled genes and RNA editing) and even Mendelian inheritance, reminding us that a genome sequence can be a far cry from knowledge of its products. Genome-wide DNA rearrangements occur in diverse organisms, and contribute to many human diseases, but their extreme exaggeration in ciliates, particularly *Oxytricha*, makes it an ideal model system to study epigenetic phenomena. My laboratory is currently focused on the mechanism and evolutionary origin of this remarkable RNA-mediated process in *Oxytricha*.

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>

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