Postdoctoral Positions Available
Cornell Center for Reproductive Genomics

Studies in small RNA biology in mammalian germ cells
Mammalian germ cells are the ideal forum in which to study the role of RNAi mechanisms in the context of mammalian physiology. On the one hand, the potential role of small RNAs in regulating human fertility has been alluded to in studies identifying RNA species in human testes and sperm, while mouse mutagenesis studies have illustrated the importance of small RNA biogenesis in gametogenesis. On the other hand, our understanding of these processes is in its infancy, complicated by the inherent difficulties of studying germ cell development in complex mammalian organisms. The Cornell Center for Reproductive Genomics (CRG) was established to investigate such mechanisms, along with the overall genomic control of processes that give rise to healthy mammalian germ cells. Several postdoctoral opportunities exist within the CRG, and these are listed below.

Paula Cohen
Our lab is interested in the mechanisms of gamete formation in mammals, with particular interest in the regulation of mammalian meiosis. Our studies of small RNA processes during meiosis have focused on the role of the Argonaute proteins in mediating small RNA regulatory events in the germ cell nucleus. In particular, we have demonstrated that the Argonaute, AGO4, localizes within the nucleus of mouse spermatocytes where it associates specifically with the X and Y chromosomes in the region known as the Sex body. The sex chromosomes are transcriptionally silenced during prophase I, and we hypothesize that AGO4 and its accompanying small RNAs play vital roles in mediating such silencing. For more information, see http://www.vet.cornell.edu/labs/cohen/homepage.html

Andrew Grimson
About the Cornell Center for Reproductive Genomics

The CRG was established in 2006 to investigate genetic mechanisms underlying germ cell development. Soon thereafter, a large effort was focused on understanding the role of small noncoding RNAs in these processes. The CRG is a campus-wide center that brings together researchers with interests in germ cell development, reproductive biology, small RNA biology, and meiosis/recombination. Center members benefit from a wide array of interactions mediated by groups such as the Vertebrate Genomics group, the Cancer Center, the Stem Cell Center, and the Replication, Recombination and Repair (R3) group. These many collaborative groups form networks of scientific interest that span across the campus and integrate among all the Life Science departments, creating a rich scientific environment for our research endeavors. For more information, see http://reprogenomics.cornell.edu

Ithaca, NY

Cornell University is situated in picturesque upstate NY, in the town of Ithaca. The town of Ithaca boasts two outstanding universities, Cornell and Ithaca College, and has been named the “Smartest City” in the U.S. (source: Luminosity). The two universities attract students from all over the world, making Ithaca exceptionally cosmopolitan for its size. Though small, the city has many fantastic restaurants, bars, and music establishments. Ithaca is also nestled in the Finger lakes region of New York state, an area of outstanding natural beauty, with many waterfalls, gorges, and State parks/forests. There are miles of trails for walking or cross-country skiing, a local downhill ski area (Greek Peak), and Cornell Outdoor Education offers many courses in outdoor and indoor fitness, ranging from rock climbing and whitewater kayaking to massage and dance.

Application Process

The CRG offers attractive Postdoctoral packages, with good benefits and health insurance included. Please send a cover letter describing your research interests, a CV, and copies of your publications to reprogenomics@cornell.edu. Please also arrange to have 2-3 letters of reference sent to the same email address. Initially interviews will be conducted via Skype. If necessary, shortlisted candidates will be invited to Ithaca to meet with members of the CRG and the Cornell community.

Cornell University is an equal opportunity employer