

UNIVERSITY OF OTTAWA CENTRE FOR ADVANCED RESEARCH IN ENVIRONMENTAL GENOMICS

Graduate Student opportunities available

We are looking for **graduate students (PhD or MSc)** interested in basic endocrine research, hormonal control of gene expression and how this might be upset by pollutants. There are several exciting projects currently available. There is great opportunity to learn new techniques as well, including cDNA microarray analysis, electrophysiology and bioinformatics. Both fish and frog models are used. There are excellent opportunities to collaborate with groups within the Dept of Biology, Canada and Internationally.

THE FOUR PROJECTS AVAILABLE ARE DESCRIBED BRIEFLY BELOW. IF YOU HAVE YOUR OWN IDEAS OR PROJECTS IN MIND, PERHAPS YOU CAN PROPOSE THOSE.

1. The candidate will be examining the role of sex hormones in early development using the model frog species *Silurana tropicalis*. Sex steroids can affect both sexual development and metamorphosis, and so do thyroid hormones. We want to understand this cross-talk between the reproductive and thyroid systems.
2. The candidate will have a strong interest in receptors. You will isolate and characterize receptors for novel neuropeptides important for reproduction. We are trying to define a new hormone system based on granin-derived peptides. This is probably the most exciting new work we have ever undertaken. Are you up for the challenge?
3. The candidate will have a strong interest in neurobiology. We have developed an in vitro electrophysiological model to study the pathways mediating sex pheromone action in the goldfish. You will use patch-clamp methods to define these pathways. Experience (or a willingness to learn) with electrophysiology, immunocytochemistry and neuroanatomy would be an asset.
4. We are working together with colleagues in China and the UK to expand our goldfish expressed sequence tag collection and microarray platform. We want to sequence the entire transcriptome. The candidate will undertake a bioinformatics approach to study global gene expression analysis of hormone-sensitive reproductive tissues.

The University of Ottawa has an excellent scholarship program. If you have the equivalent of A minus (A-) your tuition may be covered for the duration of your tenure here. Check this out at <http://www.grad.uottawa.ca/Default.aspx?tabid=1458>

See the following website for background information on our lab: <http://www.teamendo.ca>.

Please send your CV, list of courses with marks and the names of at least 2 references to Dr. Vance Trudeau at trudeauv@uottawa.ca. The positions will remain open until suitable individuals are identified. Posted as of Dec. 21, 2009.