

# Department of Biological Sciences Newsletter

*"from biomolecules to the biosphere"*



No. 41

December 9, 2011

## Announcements



**It is becoming increasingly common** for other institutions to require visiting scientists and scholars (Faculty and graduate students) to have liability insurance while working there and engaged in research related to U of C duties. It has been brought to my attention that the procedures and processes at the U of C that relate to this are not easy to navigate. In light of that I have been working with Risk Management to make sure that the means of obtaining such liability insurance are as easy as possible to locate and interpret. To that end there is now a page on the Risk Management web site <http://www.ucalgary.ca/riskmgmt/> that addresses this issue directly under the heading "Need Proof of Insurance?" that leads to the following set of instructions : <http://www.ucalgary.ca/riskmgmt/certinsurance> . There is now a link from our Department web page directly to these pages.

Tony.



**Risk Management policy re: having Volunteers in laboratories** - As mentioned by Andre Buret at the Department meeting on November 29th, the following must be followed in association with allowing volunteers to work in laboratory situations :

- a) All volunteers must be registered with Human Resources so that they can be covered by WCB. They must also have a written description of what they are doing in the lab, in case the university faces a liability claim. A "volunteer" must be 18 or older.
- b) If a high school student is going into a lab as part of a mentorship program, this has to be set up with the Calgary Board of Education. The University has a Master Agreement with them, and Schedule C (copy located on line at <http://www.ucalgary.ca/riskmgmt/AG-masterag>) must be completed by both the Department Head and the Principal of the school. **Note.** This agreement only applies to the Public school system. If students are from the separate (Catholic) school system the process is, at present, less clear. - Tony.

**Main Office holiday closure** - The main office will be closed for the holidays from Dec 24th to Jan 1st

**The EEB New years potluck event** will be held on Jan 21 2012 at the Scandinavian Centre - see pg 7 for more details.

**There will be a DNA and Proteins Basics workshop** held in HSC 2525 on Jan 3-8, 2012. See pg 9 for more details.

### Important upcoming dates

Dec 9 - Faculty & Staff Christmas Social (George Drummond Hall)

Dec 12-21 - Final exams

## Recent Publications



C. Bueno, **K.E. Ruckstuhl**, N. Arrigo, **A.N. Aivaz**, and **P. Neuhaus** (2012): Impacts of cattle grazing on small-rodent communities: an experimental case study. *Can. J. Zool.* 90: 23–31; doi:10.1139/Z11-108

**EEB seminars** - Tuesday at 11h00 in BI 211

## Seminars



Dec 13 - James Ackerman, Department of Biology, University of Puerto Rico - Is plant-pollinator specificity associated with risk aversion?

**BCEM seminars** - Mondays at 16h00 in BI 211

Dec 12 - Thorin Leach - Examining protein-protein interactions in the assembly of prokaryotic bioenergetic enzymes

**CDP 601 seminars** - Wednesdays at 16h00 in MS 319

Jan 11 - Introductions

**EEB 601 seminars** - Mondays at 12h00 in BI 211

Jan 9 - Erick Elgin - Seasonal variables of shallow lakes

**Micro 601 seminars** - Wednesdays at 11h00 in BI 211

TBA

**The Department of Biochemistry & Molecular Biology - presents a seminar:**

Dr. Doug Muench (Professor, Biological Sciences, University of Calgary) - THE MICROTUBULE PROTEOME: A ROLE IN REGULATING PROTEIN SYNTHESIS AND IMPORT INTO ORGANELLES?

Wednesday, 14 Dec 2011 - 11:00 am – 12:00 pm - HSC Theatre One

## Graduate Student Affairs



### Did you know....

If you require an enrollment verification letter, you have the ability to do so through your Student Centre. You have the option of printing off two types of letters. A “General Letter” and a “Permit Letter”.

If there is a hold on your account or if you have changed your degree or department within the past year you will be unable to print either letter and must contact the Faculty of Graduate Studies.

Please see the link below for more details on how to access the ability to print these letters:

## **Research Proposals**

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The Ph.D. Research Proposal for Sumukh Deshpande, in the area of “Computational Biochemistry”, was accepted by his Supervisory Committee on November 29, 2011.

The M.Sc. Research Proposal for Stefano Liccioli, in the area of “Wildlife Disease Ecology” was accepted by his Supervisory Committee on December 5, 2011. At this meeting the Supervisory Committee felt that Stefano’s research project and accomplishments to date in program warranted a transfer to the Ph.D. program effective January 1, 2012.

## **Ph.D. Candidacy Oral Examinations - *Candidacy Exams are Closed Exams.***

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Brian Rankin (Supervisor: J. Theodor), will be holding his Candidacy Oral Defense, in the area of “Vertebrate Paleontology Paleobiogeography”, on December 12, 2011 @ 9:00 a.m. in BioSciences room 312. (Neutral Chair: J. Post).

Mauricio Arias (Supervisor: H. Vogel), will be holding his Candidacy Oral Defense, in the area of “Membrane Biophysical Chemistry”, on December 14, 2011 @ 10:00 a.m. in BioSciences room 499. (Neutral Chair: S. Noskov)

Odül Karayazi (Supervisor: C. Shemanko), will be holding her Candidacy Oral Defense, in the area of “Cell Biology and Tumor Progression” on December 15, 2011 @ 9:00 a.m. in BioSciences room 312. (Neutral Chair: L. Gedamu).

Alexander Tinius (Supervisor: A. Russell), will be holding his Ph.D. Candidacy Examination, in the area of “Vertebrate Morphology”, on December 16, 2011 @ 1 PM in BioSciences room 389. (Neutral Chair: L.J. Jackson).

## **Thesis Oral Examinations**

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**Please note:** *Pre-defense seminars are a degree requirement for all M.Sc. and Ph.D. students in Biological Sciences. Typically, the seminar will take place immediately preceding the Oral Defense Exam.*

**It is the student’s responsibility to book the necessary com-media equipment with either Christine (220-3578) or David (220-8307) for their examination. Please book the equipment as soon as you have the date set for your exam/proposal meeting. (defense seminars are held one hour before the stated defense time in BI 211 unless noted otherwise)**

Nina Hobbhahn (Supervisor: L.D. Harder), will be defending her Ph.D. Thesis, in the area of “Plant Reproductive Ecology”, on December 12, 2011 at 9 AM in BioSciences room 499. (Neutral Chair: J. Vamosi).

Amy Laderoute (Supervisor: G. Chua), will be defending her M.Sc. Thesis, in the area of “Functional Genomics” on December 12, 2011 at 2:00 p.m. in BioSciences 499 (Neutral Chair: J. Cobb).

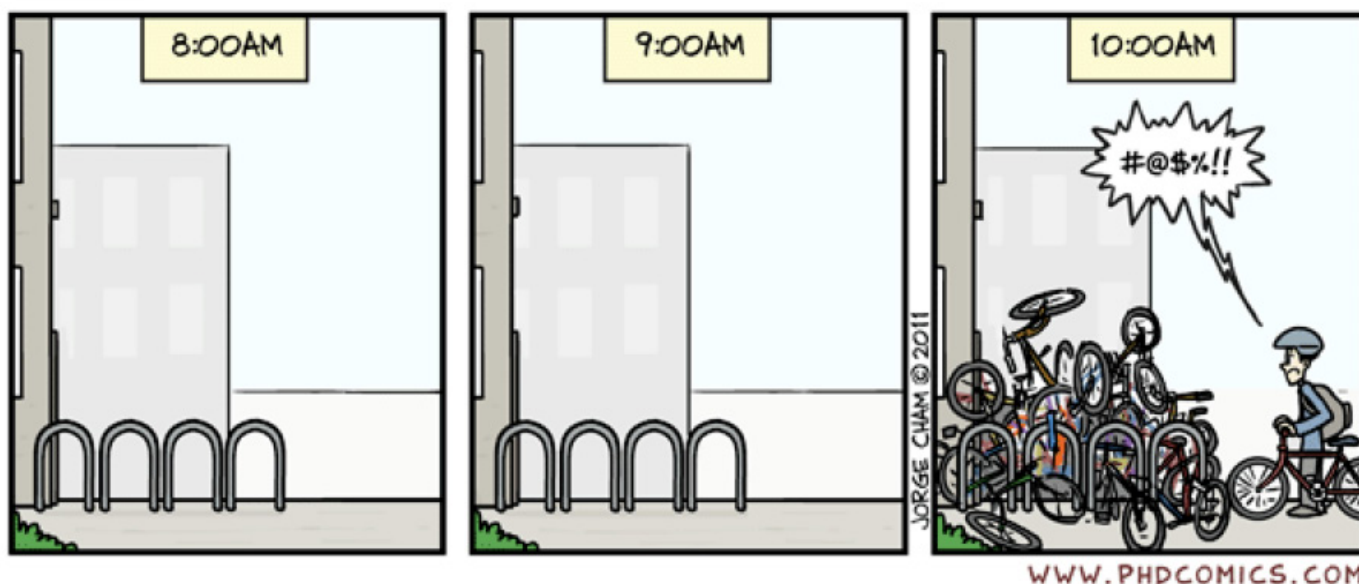
Susanne Golby (Supervisor: R. Turner & H. Ceri), will be defending her M.Sc. Thesis, in the area of “Environmental Microbiology”, on December 20, 2011 at 10:00 a.m. in BioSciences room 499. (Neutral Chair: D.G. Storey).

Chloe MacLean (Supervisor: D. Storey), will be defending her M.Sc. Thesis, in the area of “Microbiology”, on January 6, 2012 @ 10:00 a.m. in BioSciences room 389. (Neutral Chair: E. Prenner).  
Hao Ding (Supervisor: M.F. Hynes), will be defending his Ph.D. Thesis, in the area of “Bacterial Genetics”, on January 12, 2012 at 10:00 a.m. in BioSciences room 389. (Neutral Chair: TBA).

## Congratulations



**Cameron Callbeck**, who passed his M.Sc. Thesis, in the area of “Environmental Microbiology”, on December 7, 2011!



## Positions / Opportunities



### **Sessional Instructor Position: Science 311 – Writing and Reviewing Scientific Reports -**

The Natural Sciences Program at the University of Calgary invites applications for a Sessional Instructor position. The appointee will teach one lecture section of Science 311 (Writing and Reviewing Scientific Reports) in the winter (W2012) semester.

Science 311 teaches students the fundamentals of scientific writing through the completion of two scientific literature reviews and a series of active-learning lectures and tutorials. Students develop a set of transferable written communication skills by:

- Identifying essential formatting and style elements of scientific writing

- Searching for scientific information using a wide range of library skills
- Learning to properly document sources
- Reading scientific papers and identifying key conclusions
- Recognizing milestones in the writing process
- Giving and receiving peer feedback throughout the writing process

The successful candidate will have excellent written and oral communication skills and will work well within a team environment. Preference will be given to candidates with a Ph.D. in an area of science or with experience teaching scientific writing at the post-secondary level. As assignments are graded electronically, the candidate must be comfortable using technology both in and out of the classroom.

Interested persons should submit a current CV, teaching philosophy and evidence of teaching effectiveness to the address below.

Cindy Graham, Director, Natural Sciences Program  
 University of Calgary, 2500 University Dr. NW  
 Calgary, AB, Canada, T2M 1N4  
 Fax: 403.210.8126  
[sciemail@ucalgary.ca](mailto:sciemail@ucalgary.ca)

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**Parliament Hill, the Library of Parliament** is seeking trainees with a background in the sciences and engineering for their internship program. The information can be found below, along with a note from Lalita Acharya, the head of the LoP's industry, Innovation, and Infrastructure section. Please forward to your societies and make this program known. It is an excellent opportunity for training at the science-policy interface. best wishes, Rees Kassen

<http://www.parl.gc.ca/Employment/Library/InternshipProgram/index-e.asp> (E)  
<http://www.parl.gc.ca/Employment/Library/InternshipProgram/index-f.asp> (F)

Note that the program is open to students enrolled in or graduating from a post-graduate (Master's or PhD) program by spring 2012 in a field related to one of the Divisions, OR students who have completed a Bachelor's degree from a Canadian University by Spring 2012 in a field related to one of the Divisions. A new stipulation this year is that preference will be given to those individuals currently enrolled in or completing post-graduate studies



**RESEARCH TECHNICIANS** - Ducks Unlimited Canada's Institute for Wetland and Waterfowl Research is seeking up to 6 Research Technicians to work on a pintail duckling survival study in southern Saskatchewan in 2012.

Responsibilities may include, but are not limited to, searching for waterfowl nests, waterfowl pair and brood surveys, trapping, marking and radio-tracking waterfowl, wetland inventories, habitat mapping, and data management. Candidates must be able to pursue rigorous fieldwork, cope with poor weather and live in rural locations. Positions are 3-4 month terms beginning mid April to early May 2012. A degree plus relevant work experience in biology, ecology, zoology or related field is preferred.

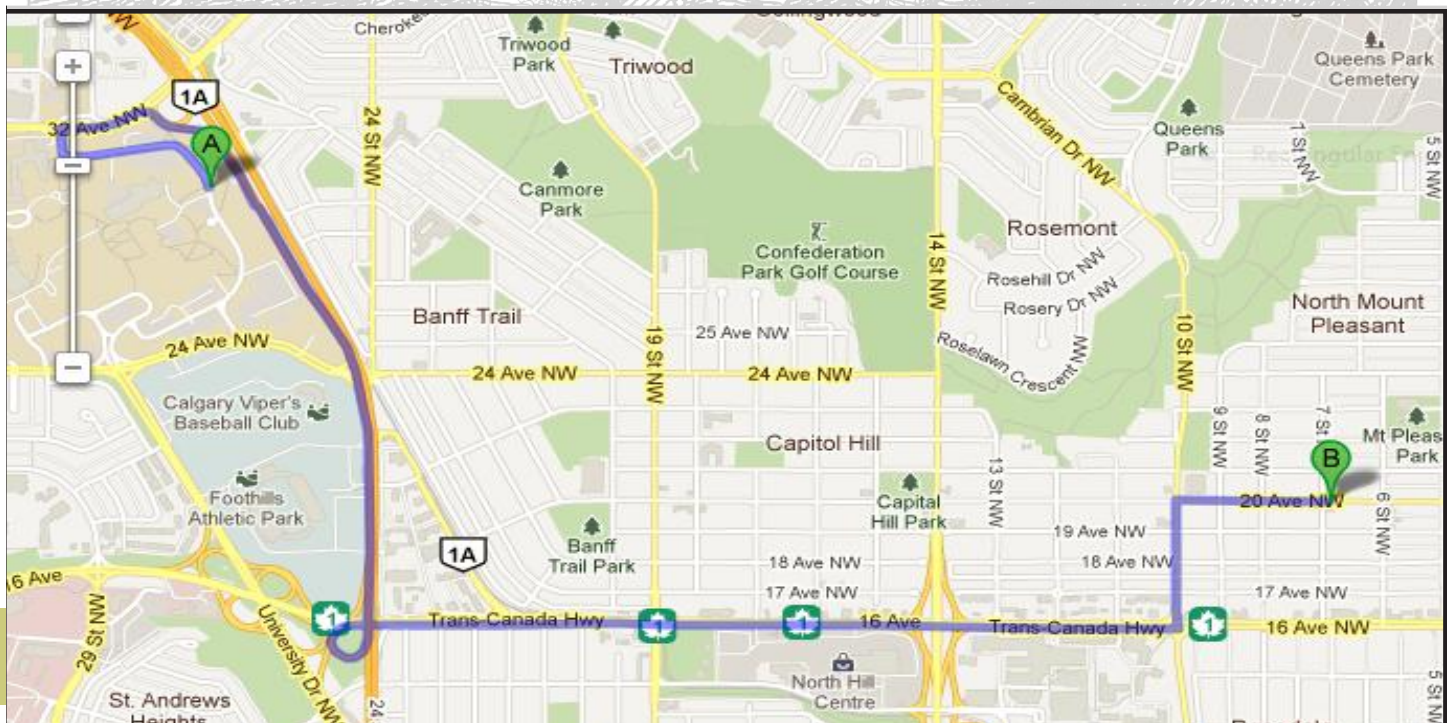
Visit the Ducks Unlimited Canada website at <http://www.ducks.ca> (click Careers at the top of Home page) for further information and application procedures. \*Application deadline is January 31, 2012.\*

**Biotech Job Bank** ([www.bhrc.ca](http://www.bhrc.ca)) has current employment opportunities in the biotechnology industry in Canada. The Biotech HR Pulse is available in PDF format at: [www.bhrc.ca/Pulse/index.html](http://www.bhrc.ca/Pulse/index.html). Phone 519-457-1470, Ext 268, Fax 519-457-3997.

**University Affairs Career Ads.** Current employment opportunities, including all facets of the biological sciences, in Canadian universities may be found at the University Affairs website: [www.universityaffairs.ca](http://www.universityaffairs.ca). Career ads are available in HTML format at: [http://www.universityaffairs.ca/career\\_ads/index.html](http://www.universityaffairs.ca/career_ads/index.html)

# EEB New Years potluck and tacky gift exchange

- January 21<sup>st</sup> 2012 @ the Scandinavian Center
  - 739 20 Ave NW (map below)
- 5pm to 11:30 w/ cocktails @ 5 and dinner at 7
- Tickets - \$12 per person (\$10 if purchased before Dec 20<sup>th</sup>!)
  - Guests welcome; kids free
  - Pay Geoff Legault (Fox lab - Biol 275)
- Potluck style
  - Signup w/Geoff to bring an appetizer, side, main, or desert
- Norse themed New Years! (Norse drinks/food/dress etc.)
  - Grab your horned cap and your biggest goblet!
- All dinnerware provided; bring iPods to play music and an unwanted gift for the tacky gift exchange
- Bring a non-perishable item for the UCalgary food bank
- BYOB – Remember to bring receipts for all your booze!!!



*Invitation to attend a long-standing student conference, a forum for presenting current research in the fields of ecology and evolution, and an opportunity for students to make contacts, obtain feedback, and exchange ideas with their peers*

*The 33<sup>nd</sup> annual*

# **PACIFIC ECOLOGY AND EVOLUTION CONFERENCE**

**REGISTRATION NOW OPEN!**

**Registration Deadline - January 31, 2012**

**March 2-4<sup>th</sup> 2012**

**Bamfield Marine Sciences Centre,  
Vancouver Island, BC**

*Hosted by:*

**UBC Faculty of Forestry,  
Faculty of Science, and  
College for Interdisciplinary  
Studies**





*For more information:*

**[www.peec2012.webs.com](http://www.peec2012.webs.com)**

**OR contact us at:  
[peec2012@gmail.com](mailto:peec2012@gmail.com)**

# DNA and Proteins Basics Workshop

Hands-on techniques workshops for students, graduate students, post-docs, faculty, and technicians

	<b>Nucleic Acids Basics Workshop</b>	}	<b>Jan 3 – 7, 2012</b>
	<b>Proteins Basics Workshop</b>		
	<b>Web-based Bioinformatics</b>		
	<b>ELISA and Immunoassays</b>		<b>Jan 7 – 8, 2012</b>

Our workshops are designed to cover the basics of all protocols listed below, including lecture/discussion to cover standard methods, hands-on application of all techniques, with helpful advice on how to troubleshoot your protocols through an understanding of technique theory. The workshops will be of interest to undergraduate students doing research projects over the summer, new graduate students, technicians, lab technologists, post-docs or faculty looking to expand their repertoire of techniques.

## Module Descriptions:

**DNA Basics:** DNA isolation and quantitation; PCR and gel electrophoresis. How DNA and RNA isolation work, PCR design and optimization such as RT-PCR, K-PCR, Q-PCR, arrays and primer probes. Restriction digests ligation, transformation and screening, sequencing, theory of cloning strategies and other molecular reactions.

**Proteins Basics:** Expression of recombinant proteins, isolation/purification/quantitation of proteins, functional studies, SDS-PAGE, Westerns, antibodies as reagents.

**Bioinformatics:** Use of web-based resources for sequence identification, alignment, restriction mapping, translation, and more.

**ELISA and Immunoassays:** Variations [direct, indirect, and sandwich], design and standardization, curve analysis, other immunoassay platforms, dot assays, antibodies as reactants. Note: one lecture overlaps with the Proteins workshop.

<b>Topic</b>	<b>January Bock week</b>	<b>Days</b>	<b>Cost</b>
DNA Basics	Jan 3 & 4	2	\$300
Bioinformatics Basics	Jan 5 AM	1/2	\$100
Protein Basics	Jan 5 PM to Jan 7	2.5	\$375
ELISA and Immunoassays	Jan 7 & 8	2	\$300
<b>Total Package</b>		<b>6</b>	<b>\$900</b>

To register: Email [workshop@ucalgary.ca](mailto:workshop@ucalgary.ca). Registration due by Dec 31, 2011.

Payment: By check or by UofC accounting string (training grants will cover this workshop).

Where: O'Brien labs, 2525 Health Science Centre, Faculty of Medicine.



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# Advanced Orthomolecular Research

## CAREER POSTING

### Research and Regulatory Associate:

Advanced Orthomolecular Research (AOR) has an established reputation in Canada as the most advanced natural health supplement formulator in the country.

The ideal candidate will have a working knowledge of biology, physiology, and pharmacology. Familiarity with Natural Health Products (dietary supplements) is a plus.

#### Responsibilities will include:

1. Product regulatory licensing, from licensing application through to post-licensing amendment and implementing compliance;
2. Contacting regulatory agencies, suppliers, and researchers for information regarding product licensing applications and novel ingredients;
3. Cooperating with R&D, production, and marketing teams on product research and development;
4. Reviewing current or archived peer-reviewed literature which deals with any facet of natural health products;
5. Summarizing (writing brief synopses) of these papers in non-technical English;
6. Providing technical product information to retailers, professionals, and consumers.

#### Qualifications:

Excellent grammar, syntax, and word usage is a must.

French language skills desirable but not required.

Faculty / Degree / Major: Faculty of Science/BSC-DEG-Biological Sciences, Faculty of Kinesiology

Degree Level(s): Bachelor, Master, Doctorate

Position Type: Permanent/Full-time

Please e-mail resume and cover letter to [drchou@aor.ca](mailto:drchou@aor.ca)

Dr. Mary Chou, MSc, PhD

Senior Research Scientist and Research and Regulatory Affairs Manager



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