# UPBM E-NEWSLETTER

Undergraduate Program in Biology and Medicine



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Xin Yi Chan, graduate student, biology, UR Photo Friday Submission

# What Did you Do Last Summer?

**Share your Summer Internship Experiences** 

Whether students attended an awesome summer program overseas, worked in a morgue, rescued wild animals, volunteered in a community center, witnessed the "Big Bang Theory" test at the Mile Hadron Super Collider or toured the country with with Green Day we would love to know and encourage you to share your stories with your colleagues. Shared knowledge not only allows others to gain useful insights but can sometimes bring more exposure to programs that are not well advertised. Submissions will be published in the Novmeber 2012 edition of the UPBM enewsletter. All interested should send their stories and pictures (if possible) by e-mail to the UPBM Office.

## **Annual UPBM Poster Session**

**UPBM Majors Invited to Attend / Opportunity to Present Research** 

Please join us on Friday October 12th, 2012 from 3-5:00 p.m. in the Hutchison Hall, First Floor, Green Lounge for The Annual 2012 UPBM Poster Session. The UPBM poster session is an annual tradition held during Meliora weekend. This event is an excellent opportunity for faculty, students, and alumni to network and discuss research.

Refreshments will be provided.

Research from the Chemistry department will also be displayed. Students may either attend or present. UPBM majors (BA BIO, BS BBC, BS BCD, BS BEB, BS BMB, BS BMG, and BS BNS) that are interested in presenting must have done significant research of exceptional quality that can be displayed and presented on a poster. Typically presenters stand by their posters and give onthe-spot explanations of their research to event-goers. Students are welcome to use posters that have already



been created from research that was conducted at the UR or other institutions pending their research advisor's (PI's) permission. For more details contact the <u>UPBM Office</u>.

Independent Research (395) courses allow students to gain research experience while gaining academic credit for their work in the laboratories of program faculty located on UR's River Campus or Medical

#### Related

- \*2011 UPBM Poster Session Slideshow
- \*2012 UPBM Poster Session Call for Submissions
- \*Meliora Weekend 2012 Event Website

# **Independent Research (395) Courses**

What are 395 Courses / Finding Research Mentors

Independent Research (395) courses allow students to gain research experience while gaining academic credit for their work in the laboratories of program faculty located on UR's River Campus or Medical Center.



Typically a student and faculty member agree to register a research project as a course. Although Independent Research is not a typical lecture hall experience it is are still considered a course that requires defined objectives, learning outcomes, contact hours, and criteria for evaluation that is normally associated with regular credit-bearing courses. Independent Research involve hands-on benchwork and laboratory techniques that are non-clinical in nature.

To get started undergrads need to find a faculty mentor who conducts research within their area of interest and will agree to take them on as a 395 student. Undergraduates are advised to begin searching for a research mentor before the semester begins as faculty may decline to sponsor a course, especially if the request is submitted too late after the beginning of classes. Similarly, any request for an exception to the policies may be denied.

Student typically find research mentors through consulting their academic advisors and teachers for recommendations of faculty that may conduct research in an area of science that may be of interest to them. Another way to find a mentor would be to search UR websites and network with faculty to find out if they would be willing to take on new students. Additionally, students that work in a lab may also register a research course with their lab manager as long as payment is not received for the work that is related to the course. Please note that research mentors that consent to instructing an Independent Research course must be a full-time members of the teaching faculty at the University of Rochester; including visiting professors. Resources to help students connect with research mentors are available on the <a href="UPBM">UPBM</a> Independent Research Resources webpage.

#### **Related Articles:**

- \*Independent Research (395) Guidelines
- \*Student Employment Job Board
- \*List of 395 Independent Research Courses registered over the past three years
- \*Instructions on how to register 395 with UPBM Faculty

# **EPA Internships in Europe**

## Internships in Europe Info Meetings - Message from Lisa Frauens

The University of Rochester, in cooperation with EPA Internships in Europe, sponsors semester-long programs in London, Berlin, Bonn, Cologne, Brussels, Edinburgh and Madrid that offer students the opportunity to gain valuable international work experience with an eight-credit internship as well as taking 2 courses throughout the semester.

Summer programs are also offered at each site except Madrid and Berlin. These are of special interest to students who are not able to spend an entire semester off campus.

Students have the opportunity to not only work their field of interest, but to work in their field in an international setting—a valuable experience not easily attained on one's own. The Internships in Europe program is a unique, unforgettable opportunity to live, work, study and explore in a foreign country. (continued page 3)

Internships are available in a broad range of fields, including business, the arts, media and publications, health sciences, medical research, politics and law. Students will be placed at an internship based on their interests and application essay.

Internships in Europe Informational Meetings will be held on the following days in Wilson Commons 122:

- \*Monday, September 24 @ 7 p.m.
- \*Friday, October 19 @ 1 p.m.
- \*Tuesday, November 6 @ 7 p.m.
- \*Friday, November 16 @ 1 p.m.
- \*Wednesday, December 5 @ 7 p.m.

Students can also visit www.rochester.edu/college/internships for additional information.

# Society for Undergraduate Biology Students (SUBS)

## **Mission / Upcoming Events**

SUBS Mission: "Our purpose is to promote faculty-student interaction, to serve as a guiding force for Biology majors/interests, provide networking opportunities through events, and to cater to the needs of the membership through member input."

Volley ball games are open to all UPBM majors (BA BIO, BS BBC, BS BCD, BS BEB, BS BMB, BS BMG, and BS BNS) students, graduate biology students, biology professors, and biology department staff. This year's SUBS president is Jeffrey Bulger .13, BMB.

#### **Upcoming SUBS Events**

- \*Oct 3rd Study Hours (Get Help from Upper-Classman, All BIO Classes Welcome) Morey 501 8pm 9pm
- \*Oct 18th General Interest Meeting 2 Gowen 7-8:30pm
- \*Nov 19th General Interest Meeting 3 Gowen 7-8:30pm

#### Related

\* SUBS web site

# **Center for Excellence in Teaching and Learning**

#### Join a Study Group

Study groups offer an opportunity to study collaboratively with classmates, guided by a student leader who did well in the same course within the past year or two. We aim for a maximum of twelve students per group; most groups are smaller. Groups meet weekly, and last for an hour. Study groups typically start in the third week of the semester.

The last day of classes will be the last day of study groups. Visit the <u>Study Group Website</u> for more information and to sign-up.



## Related:

\*Center for Excellence in Teaching and Learning

# **Degree with Distinction in Research**

**Planning a Senior Thesis** 

A degree with distinction in research is an honor that recognizes a student for outstanding accomplishments in research. Students majoring in the Undergraduate Program in Biology and Medicine (UPBM) with research of exceptional quality and a minimum BIO GPA of 2.7 may apply for candidacy during their senior year. Candidates must have developed a novel body of work that includes publication quality data from which to generate a senior thesis. In addition, candidates must successfully present and defend their senior thesis before a faculty examination committee.

Applications for Candidacy are due by March 1st 2013. Candidates will be contacted with the members of their examination committee during the week of March 25th, 2013. Senior Defense must be defend their senior thesis by the May 3rd, 2013.

### Related:

- \*Degree with Distinction Guidelines
- \*Senior Thesis Planning Timeline

# **Biology Major Career Planning Resources**

The Gwen M. Green Career & Internship Center

The <u>Gwen Green Career and Internship Center</u> has developed several resources that are helpful in assisting students and alumni with academic/professional choices and post baccalaureate planning. Students should make full use of Gwen's on-line and advising services. The Career and Internship center is located in 302 Meliora Hall. Listed below are a few of the events and services being offered this year.

Fall 2012 Career & Academic Planning Seminars: Begins 10/2/12. The seminars introduce topics ranging from "How to Work the Career Fair" and "Networking Techniques and Tools" to "Intro to Internships" and "Interviewing Basics" for freshmen to grad students. Seminars are held in Gwen's conference room, 302 Meliora Hall, every Tuesday, Wednesday and Thursday at 2 p.m. and 5 p.m. Any academic council or other student group may schedule their own seminar by contacting Kerrie Anne Merz, .

"Food For Thought" Alumni Career Conversation Series: Whether the alum is coming to campus or doing a Skype session they serve as an excellent resource to increase students' exposure to career options, awareness of strategies for entering fields of interest and a way to build professional networks.

Opportunities to Shadow Alumni: Gwen's list of alumni willing to have a student shadow for the day

Recently Posted Full-time positions: Recent job and internship postings are on Gwen's blog each week

#### Related

- \*What can I do with a Biology Major?
- \*Biology, Chemistry & Environmental/Ecology Research and Internships
- \*Biology Job Search Links
- \*Health Professions Advising Fall 2012 Events
- \*Career and Academic Planning Seminar Series

## National Conference on Undergraduate Research (NCUR 2013)

The University of Wisconsin- La Crosse April 11-13, 2013. Deadlines: TBD

"NCUR is an annual conference (the only one if its kind, with a national scope) for primary research and artistic performance by undergraduate students, encompassing the natural and social sciences, the humanities, the arts, and engineering. Since its beginnings the conference has enjoyed the active support of major American colleges and universities. The UR Office of Undergraduate Research began sending students to NCUR in 1991. Student investigators may present their work at NCUR as an oral presentation or in a poster format. NCUR participants are also eligible to submit texts of their presentations to be considered for publication in the annual NCUR Proceedings, a juried publication." For more information contact the <u>Undergraduate Office of Research Website</u>.

## Related

\*National Conference on Undergraduate Research Website (continued pg 5)

- \*NCUR 2013
- \*University of Wisconsin- La Crosse

# **Opportunities**

**Links to Program Information** 

**Have any of these worked out for you?** Feel free to e-mail the UPBM administrator with your feedback. Positive and negative feedback are welcome.

Alaskan Observers North Pacific Ground Fish Observer Positions Available Year-Round: http://www.alaskanobservers.com/observer.html

Albert Einstein Summer UG Research Program: http://www.aecom.yu.edu/phd/index.asp?surp

American Association for Cancer Research Minority Scholar in Cancer Research Awards: http:// www.aacr.org/home/scientists/meetings--workshops/ travel-grants/minority-scholar-awards.aspx

Amgen Scholars Program At Columbia University http://www.columbia.edu/cu/biology/ug/amgen/

Berkeley Amgen Scholars Program http://amgenscholars.berkeley.edu

Cornell University / Boyce Thompson Institute for Plant Research: Summer Research Program http:// www.bti.cornell.edu/internships

Case Western Reserve Summer Research Program http://casemed.case.edu/admissions/research/ summer\_programs.cfm

Case Western University Summer UG Research in Pharmacology http://pharmacology.case.edu/education/surp.aspx

The Chicago Center for Systems Biology Summer REU http://www.igsb.org

Cold Spring Harbor Laboratory Watson School of Biological Sciences Undergraduate Research Program http://www.cshl.edu/URP/

Columbia University/Barnard College Amgen Scholars Summer Research Program http://www.columbia.edu/ cu/biology/ug/amgen/

Columbia University BiolGERT Fellows Program: http://www.bioigert.columbia.edu

Columbia University / Master's Program in Climate and Society: http://www.columbia.edu/cu/climatesociety/

Columbia University MPA in Environmental Science and Policy Information: http://www.columbia.edu/cu/mpaenvironment/pages/program.html

Columbia University / Masters Program in Microbiology & Immunology: www.microbiology.columbia.edu

Columbia University / MS in Nutrition: http://cumc.columbia.edu/dept/ihn/student/ PerspectiveStudents.html

Cornell University, College of Agriculture & Life Sci. NYS Agricultural Experiment Station Summer Research Scholars Program: http://www.scholars.pppmb.cals.cornell.edu/

Educational Programs Abroad (EPA): http://www.epa-internships.org
Fulbright Scholarship Program
http://us.fulbrightonline.org/home.html.

Fred Hutchinson Cancer Research Center UG Faculty Links to Internships in Scientific Research of Medicine http://www.fhcrc.org/science/education/Cancer %20Research%20Internships\_FHCRC%20site.pdf

Fred Hutchinson Cancer Research Center SURP Program

http://www.fhcrc.org/science/education/undergraduates/

Harvard Medical School Dept. of Genetics Church Lab Summer Internships http://ccv.med.harvard.edu/

diversity\_summer\_internships.htm

Harvard School of Public Health Summer Program in Biological Sciences in Public Health http://www.hsph.harvard.edu/academics/biologicalsciences/undergraduate-summer-internship-program/

Homeland Security DHS Education Programs http://www.orau.gov/dhseducationprograms/

Institute for Health Metrics and Evaluation (IHME)
Post-Bachelor Fellowship

http://www.facebook.com/pages/IHME-Post-Bachelor-Fellowship-Program/215770165122763?sk=info

The University of Iowa Summer Undergraduate MSTP Research Program

http://www.healthcare.uiowa.edu/mstp/

LUMCON 2012 Summer Field Program www.lumcon.edu/education/university/summer

Journal of Undergraduate Research (JUR) http://sa.rochester.edu/jur/

Journal of Young Investigators (JIY) http://www.jyi.org/participate.php

Kupcinet-Getz International Summer Science School 2011

http://www.fgs.org.il/en/

MATCH Teacher Residency http://www.matchschool.org/matchcorps/teacher.htm

Marine Mammal Research Internships http://www.whalecenter.org

Medl ife

http://www.medlifeweb.org/

Michigan State Veterinary Summer Enrichment Program

http://cvm.msu.edu/student-information/cvm-undergraduate-programs/enrichment-summer-program

MIT BE REU Program

http://web.mit.edu/be/education/reu.htm

NASA Space Radiation Summer School http://www.dsls.usra.edu/spacerad/2011

National Academics Research Associate Program: http://www7.nationalacademies.org/rap/

National Academies Fellowships Program http://www.national-academies.org
The National Cancer Institute's Integrative Cancer Biology Program

http://icbp.nci.nih.gov/summer\_program/

National Institute of Allergy and Infectious Diseases (NIAID), Intramural NIAID Research Opportunities (INRO); for more information visit: http://www3.niaid.nih.gov/labs/training/inro/

National Science Foundation's Graduate Research Fellowship Program (GRFP) http://www.nsfgrfp.org/

The Nemours Summer Undergraduate Research Scholarship at Alfred I. duPont Hospital for Children http://www.nemoursresearch.org/Scholarship/

New York State Dept. of Environmental Conservation Summer Job Opportunities

http://www.dec.ny.gov/education/1869.html

Northeastern University Three Seas Program http://www.threeseas@neu.edu

One Hear Source Volunteer Opportunity in Africa http://www.oneheartsource.org/

Pasteur Foundation Internship in Paris http://www.pasteurfoundation.org/pdf/PasteurInternshipApp2012.pdf

Physician Assistant Education Website http://physician-assistant-ed.com/

RISE (Research Internships in Science and Engineering)

http://www.daad.de/rise/en/

Rochester Academic of Science Student Research Grants

http://www.rasny.org/

Roswell Park Summer Research Participation Program http://www.roswellpark.edu/education/summerprograms

Sloan-Kettering Summer Undergraduate Research Program / http://www.sloankettering.edu/gerstner/html/54513.cfm

South Western Medical Center Summer UG Research Fellowship (SURF) http://www.utsouthwester.edu/SURF

South Western Medical Center Quantitive and Physical Science Summer Undergraduate Research Fellowship (QP-SURF) http://www.utsouthwester.edu/QP-SURF

Southern Teachers Agency / Biology Teaching Jobs http://www.southernteachers.com/
St. John Fisher Wegmans School of Pharmacy http://www.sjfc.edu/pharmacy/admissions

Stowers Scholar Program
http://www.stowers-institute.org/ScientistsSought/
training/scholarsprogram.asp

Teach for America http://www.teachforamerica.org

The UNCF Merck Science Initiative Science Scholarships and Fellowships: http://www.uncf.org

University of Kansas EEB Graduate Program http://www.ku.edu/~eeb

U of R Undergraduate Research Job Service: http://www.rochester.edu/College/ugresearch/jobs/

U of R National Fellowships and Scholarships Website: http://www.rochester.edu/College/CCAS/fellowships

Wadsworth Center Summer Research Program 2011 in Molecular and Cellular Biosciences mailto:http://www.wadsworth.org/educate/molcel.htm

Weizmann Institute of Science Annual Kupcinet-Getz International Summer Science School http://www.fgs.org.il/en/article.php?id=221/

## World Teach

http://www.worldteach.org/site/c.buLRlbNOlbJ2G/b. 6150577/k.BF13/Home.htm

# **Helpful Links**

Information to Other UR Departments

Athletics
Biology Department
Dining
Directory
Employee Discounts
Gwen Green Career and Internship Center
Facilities
Libraries
Undergraduate Program in Biology & Medicine
University Information Technology
University Counseling Center

## **Contact Us**

Please feel free to send submissions and / or any feedback to the UPBM Administrator.

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