UPBM E-NEWSLETTER

Undergraduate Program in Biology and Medicine



Photo by Dr. Cheeptip Benyajati. Pictured from left to right Logan Schwartz '16, BMG and Heather Le Bleu '16, BCD. Pictured in the back is Mrs. Deborah Lawrence from the Biology Main Office

Links

- ▶ Biology Department Newsletter
- Momma Needs a SUBS T-shirt
- ▶ Senior Slide Show 2014
- ▶ UPBM Alumni Where Are They Now?
- ▶ UPBM E-News Archive
- ▶ UPBM Home Page

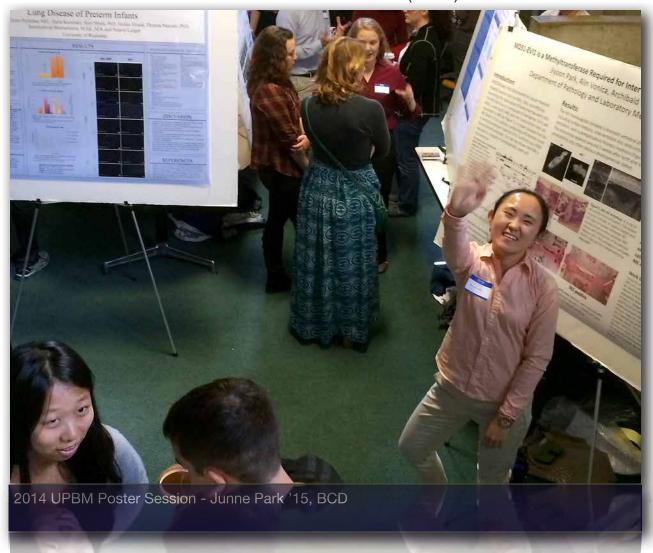


UPBM Poster Session 2014 Huge Success - Relive the Magic

Many thanks to the UPBM majors who presented their research in this year's poster session as well as to those who came out to support their colleagues. The event was a huge success. Dr. Benyajati took several pictures which have been turned into a slide show so that you can "Relive the Magic." Click on the following link to visit the slideshow on-line: UPBM Poster Session Slide Show

- ★ Kristin Abramo '15, BS BMG
- ★ Sara Benerofe '15, BS BCD
- ★ Max Beyman '15, BS BMG
- ★ Sarah Bond '15, BS BBC
- ★ Michael Breen '15, BS BMB
- ★ Elizabeth Brown '15, BS BCD
- ★ Corey Garyn '15, BS BCD
- ★ Nicholas Hill '15, BS BBC
- ★ Morgan Kath '16, BS BBC
- ★ Shannon Keating '15, BS BEB

- ★ Ali Khan '16 T5, BS BBC
- ★ Jiyoon Park '15, BS BCD
- * Robert Rietmeijer '15, BS BBC
- ★ Mikel Ruterbusch '15, BS BBC
- * Akram Salam '15, BS BBC
- ★ Logan Schwartz '16, BS BMG
- ★ Max Sims '16 T5, BS BNS
- ★ Jamie Strampe '15, BS BMB
- ★ Jonathan Tam '15, BS BMB
- ★ Ruijia Zhu '15, BS BBC



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What I did Last Summer / Internship at the Cleveland Clinic

by Tatsunari Tomiyama '15, BIO



Tatsunari Tomiyama '15, BIO

My name is Tatsunari Tomiyama. I am a Biology major in my senior year and this is what I did last summer.

This summer I attended an Internship at The Cleveland Clinic Center for Reproductive Medicine in the Glickman Urological Institute.

The Cleveland Clinic is located in the state of Ohio. The campus is centrally located between uptown and downtown Cleveland.

At the epicenter of it's campus is a luxury hotel, The Intercontinental. The hotel provides private access to high-profiled customers seeking treatment at the Clinic.

The Cleveland Clinic has a much larger campus in comparison to the U of R and is especially known for their Cardiology and Urology departments which has earned them #1 rankings in US News World Reports.

The selection process for this internship was fairly competitive as thirty students were chosen from an applicant pool of approximately 250 undergrads worldwide.



Some advice to international students who are thinking about applying is to start early and contact the Center for College Advising Services to obtain the faculty approval to update the paperwork needed to work in the country over the summer.



w/ Mentor Dr. Ayaz

This internship focuses on the study of Andrology. According to the Merriam Webster Dictionary, "Andrology" is defined as "a branch of medicine concerned with male diseases and especially with those affecting the male reproductive system. "

I pursued this internship as I have an interest in aerospace

medicine and was able to draw a connection between the field and my interests to a certain degree

The workload is fairly rigorous as interns are assigned written and benchwork projects in addition to attending 68 lectures. At the end of the seven weeks interns were required to give a seven-minute presentation.

Under the mentorship of Dr. Du Plessis I wrote a paper entitled, "The Impact of Ionizing Radiation on Male Fertility."



w/ Mentor Dr. Gunes

My bench project was entitled "Spermatozoa Protein Examination in Testicular Cancer." The procedure was simpler than what I expected. A team removed sperm obtained from a testicular cancer patient. After "de-freezing" the sperm and the proper procedure to

ready protein analysis, we examined the proteins and compared with a healthy sample.

Although the internship was a lot of work there was also enjoyable activities planned with co-workers and faculty. A lot of time was spent with my colleagues and as a result close friendships were formed.

One of my observations was that most other interns had pre-med interests which is different from mine. As noted before, my interests are primarily in aerospace medicine and primary care for astronauts and pilots. Although the research was not directly related I was able to gain professional experience.



w/ Dr. Du Plessis (left) & Amit Shetty (right)

I really appreciate the summer internship support members, mentors, and interns for providing me

with this opportunity and would like to extend special acknowledgements to: Mentors/Faculty: Dr. Agarwal, Dr. Sharma, Dr. Gupta, Dr. Du Plessis, Dr. Ayaz, Dr. Tvrda, Dr. Gunes, Dr. Damayanti, Tina Virk. Interns: Aaron Panicker, Alaa Alsaffar, Amit Shetty, Arun Syriac, Aysenur Ersoy, Cansu Yazar, Carolina Bassi, Caroline Cirenza, Deepika Sathish, Elizabeth Pandithurai, Feras Jazaeri, Hanna Tadros, Jasmine Eliwa, Julia Tsinberg, Khalid Jabarti, Maha Al-Sadaan, Maysa Al-Badawi, Namariq Haroun, Nawaf Alkuhaimi, Rashna Shetty, Sara Philby, Sneha Parikh, Vanessa Dantas, Vijay Venugopal, Vikram Rohra, Wedad Al-Najjar. Additionally, a special thanks to: Marianne



Related

Cleveland Clinic Center for Reproductive Medicine Summer Internship Program

Checklist for a Semester Abroad

By Campus Times · Published on September 18, 2014



Alexa Ball '15, BIO

Last semester, I studied Italian language and culture in the beautiful, bustling city of Rome, Italy with the Institute for the International Education of Students (IES Abroad). While my adventure abroad officially began in February, my preparation for life in the Eternal City began more than a year before.

It is no surprise that a semester, year, or summer abroad takes an immense amount of planning and important decision-making. Where and when do I want to go? Does UR offer a program in that country? Will I get credit and financial aid? Can I make it all work? These are all questions I asked myself before selecting my specific study abroad program.

In any situation, planning an experience abroad is a difficult and lengthy process. In my case, I wanted to study something completely unrelated to my major (Biology) in a non-English speaking country. To add to the challenge of selecting the right program, my bank account had seen better days.

Choosing to study in Rome, however, ended up being a simple decision after I took a UR summer course in Italy and fell in love with "la dolce vita." But this time around, I wanted to experience Italian culture on a deeper level.

As an Italian minor, I wanted to be immersed in the language in hopes of becoming fluent. Yet, as a biology major, I thought it would be impossible to study abroad for a whole semester without having to overload in the future. I eventually learned, however, that with great determination, a lot of help from academic advisers, and a generous scholarship, going abroad can become a reality for any student.

Here are some things to keep in mind to help make your study abroad aspirations attainable:

Plan Early:

I began planning to go abroad while I was a sophomore and still had some flexibility in my four-year schedule. Many people throughout the University were ready and willing to help me put everything in order.

Making an appointment with an advisor is the first step to exploring the myriad study abroad programs and scholarships available to UR students. The Center for Study Abroad is an invaluable resource that should be used early and often.

My advisor gave me information about programs to fit my needs and helped me navigate the application processes for my program, scholarships, and student visa.

Advisors in specific academic departments also helped me schedule my degree requirements in a way that permitted studying abroad. I had to shuffle my schedule around to squeeze in all my degree requirements, but I made it work.

Think outside the box:

For me, that "box" was my major. Studying abroad in a non-English speaking country meant that finding a program that would allow me to study biology would be difficult.

Instead of focusing on the requirements for my major, I began considering other ways that a semester abroad might contribute to my course plan.

Studying in Italy allowed me to earn credit towards my Italian cluster (which eventually became my Italian minor).

With the University's cluster curriculum, I found I had a lot of freedom in designing my academic plan. Choosing a cluster in a foreign language allowed me to stay on track with my degree requirements even while taking a semester off from biology. Clusters are an excellent way to efficiently incorporate studying abroad into any course of study.

Explore Financial Aid Options:

It is a common misconception that studying abroad will break the bank. My UR financial aid package transferred to my program and I received need-based aid directly from IES.

There are also plenty of outside scholarship opportunities to explore. I was awarded the Benjamin A. Gilman International Scholarship, sponsored by the U.S. Department of State. The Gilman Scholarship is open to all college students who receive a Federal Pell Grant.

The competitive scholarship is designed to benefit students studying in non-traditional study abroad locations and who are underrepresented in education abroad programs. Awards of up to \$5,000 can help with the cost of tuition, room and board, airfare, local transportation, and books.

The Gilman Scholarship made all the difference in making my semester in Rome affordable. In addition to supplementing my tuition, the scholarship allowed me to live comfortably in Rome and explore other parts of Italy..

Going abroad will undoubtedly change your life and significantly impact your academic, professional, and personal goals. No other experience will be as infinitely challenging and infinitely rewarding as leaving the comforts of home and spending time abroad. If you truly possess a passion travel, any academic or financial hurdle can be overcome. There are numerous resources to help you create your unique experience abroad – you just have to know where to look.

Related:

Campus Time's - Link to Article Campus Times News Office of Study Abroad - see website for info Meetings

Research Initiative Award for Undergraduates

Message from the River Campus Friends of the Libraries - Application Deadline 11/21/14

Research—the process of finding, evaluating, and synthesizing information in order to answer a question or solve a problem—is a life-long practice that emerges from curiosity and critical thinking. This intellectual activity involves the ability to identify and refine research topics, craft authentic questions, develop sound search strategies, and acquire the skills associated with information literacy. These skills include but are not limited to critically evaluating and analyzing information, effectively using sources, and appropriately citing information.

This new award recognizes excellence in undergraduate research leading towards a senior thesis, capstone project, or an independent research project. Students in their late junior year or early senior/Take Five year are especially encouraged to apply.

The award recognizes student engagement in a process of research spurred by their curiosity and interest. Specifically, the Award Committee is interested in a student's ability to:

- Identify and refine a research topic of interest
- Gather materials for the early phases of a research project
- Establish methods for selecting and evaluating sources

 Work with faculty and librarians to develop a research strategy and to assess scope and direction of an independent research project

Award Amount: \$500

The award is sponsored by The Friends of the University of Rochester Libraries (FURL).

Application Deadline: 11/21/2014

Award criteria and application procedures can be found at this link: http://www.library.rochester.edu/friends/researchinitiative.

If you have any questions about this award, please contact Margaret Engel at mengel@library.rochester.edu.

Related

River Campus Friends of the Libraries

First SUBS Volley Ball Game 11/7/14

Biology vs. Students - Society for Undergrad Biology Students (SUBS)

Harris Weber, president of the Student for Undergraduate Biology Students (SUBS) has announced the first volley ball game of the year. The game between the Biology Department and Students will be on Friday 11/7/14, from 4pm - 6pm in the Goergen Athletic Center, Court B.



The BIO department is back and are willing to take on ANYONE!!!!

Come out and play or stop by to cheer on your colleagues. At the very least check it out. See you on the 7th!

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.."

SUBS plans many events throughout the year so stay tuned for more information on club events and dates.

Students can join by visiting the SUBS Website or by contacting the Club President, Harris Weber at: hweber4@u.rochester.edu

T-Shirts are available for \$10 each. To order visit the On-line SUBS T-shirt Order Form.

Related:

UPBM Calendar for AY 2014-15 Society for Undergraduate Biology Students Website On-line SUBS T-shirt Order Form My4Org Piece on Ex-Subs President Chelsea Hans '14, BCD

National Conference of Undergraduate Research (NCUR) 2015

Message from the Director of Undergraduate Research / Application Deadline 11/5/14

The 29th National Conference on Undergraduate Research (NCUR) will take place on the campus of **Eastern Washington University**, **April 16 - 18**, **2015**. Typically, 20-30 students from the University of Rochester attend this conference annually and give presentations on their research. This is a wonderful opportunity for some of our strongest students to show off their work and meet other students doing research around the country. This venue is of particular value for students who do not have the opportunity to make a presentation at a professional meeting in their area of research.

If you know of a student —in any discipline—who might be interested in attending NCUR, please send them to the College webpage at www.rochester.edu/college/ugresearch/ncur/index.html where they will find an overview, application information and a timeline of the application process.

Although students can submit abstracts to attend the conference on their own, the Office of Undergraduate Research will organize a trip to NCUR for a group of University of Rochester students and cover the travel expenses for as many of these students as budget constraints allow. Therefore, I will be asking the advisers and/or departments of each applicant to consider making a voluntary contribution. These students are going forth to represent the University. Adviser and departmental contributions allow us to expand the program participation well beyond what is allowed solely through the budget of the Office of Undergraduate Research. This broad participation enriches the experience for all the students. We will do our best to take as many students with as broad representation across the College as possible.

Please note that the deadline for interested students to submit applications to the Office of Undergraduate Research to be part of this group is **November 5, 2014.**

Thanks for your help in encouraging students who might benefit from this experience to consider attending. If you have questions, please contact me or Ann Robinson in the Office of Undergraduate Research in 4-209B Dewey Hall (ann.robinson@rochester.edu or 585-276-5306).

You can find more information on this year's conference on the NCUR website at www.cur.org/ncur 2015/.

Sincerely,

Steven L. Manly
Professor of Physics
Department of Physics and Astronomy
Director of the Office of Undergraduate Research
University of Rochester
Rochester, NY 14627
Phone: 585-275-8473

email: steven.manly@rochester.edu

Related: Office of Undergraduate Research National Conference of Undgrad Research - NCUR 2015

Opportunities

★Any feedback on these programs greatly welcomed (positive or negative).

Alaskan Observers North Pacific Ground Fish Observer North Pacific Ground Fish Observer Position Openings

Albert Einstein College of Medicine Summer Undergraduate Research Program

Amgen Scholars
Amgen-UROP Scholars Program

Amgen Scholars Program Homepage

Case Western Reserve University Summer Programs

Case Western Reserve University
Summer UG Research in Pharmacology

Chicago Center for System's Biology Research Experiences for Undergraduates Summer Program Summer Undergraduate Research Fellowship (SURF)

Cleveland Clinic Center for Reproductive Medicine Summer Internship Program

Cold Spring Harbor Watson School of Biological Sciences Summer Undergraduate Research Program

Columbia University
IGERT Research Program for Undergraduates

Columbia University / Barnard College Amgen Scholars Summer Research Program

Cornell University

Boyce Thompson Institute for Plant Research Internships

Cornell University, College of Agriculture & Life Science Summer Research Scholars Program

(Continued Page 7)

Davis Projects for Peace

Kathryn W. Davis Summer Fellowship

Deutscher Akademischer Austausch Dienst (DAAD) Research Internships in Science and Engineering (RISE)

Duke University / Robert Noyce Teacher Fellowship Program

EPA Internships

Medical Research and Health Science Internships Available in Europe!

Fred Hutchinson Cancer Research Center Summer Undergraduate Research Program

Fred Hutchinson Cancer Research Center Internships in Scientific Research or Medicine

Fulbright Scholarship US Student Program

Gerstner Sloan-Kettering

Summer Undergraduate Research Program

Harvard Medical School

Summer Undergraduate Research Internship Program

Harvard School of Public Health

Summer Program in Biological Sciences Public Health

Homeland Security DHS Education Programs HS-STEM Summer Internship Program

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

Louisiana University Marine Consortium Summer Field Course Information

MATCH Education Teacher Residency

Mayo Clinic

Summer Undergraduate Research Fellowship

MedLife Volunteers

Michigan State Veterinary Enrichment Summer Program

NASA Space Radiation Summer School Summer 2015 Program

National Collegiate Research Conference (NCRC) NCRC 2015 Applications Plenary Apps Due 9/6/14, General Apps Due 11/4/14 Nemours/Alfred I. duPont Hospital for Children and Nemours Office of Health Equity and Inclusion Summer Undergrad Research Scholarship

New York State Dept. of Environmental Conservation Summer Employment Opportunities

One Hear Source

Volunteer Opportunities in Africa

One Start

Your chance to win US\$150k to realize your biotech business idea

PIRG - Job Openings for Graduating Seniors http://jobs.studentpirgs.org/

Projects for Peace

Kathryn W. Davis Summer Fellowship

Research Internships in Science and Engineering RISE Deutscher Akademischer Austausch Dienst (DAAD)

Roswell Park Cancer Institute Summer Research Programs

SUNY Oswego Global Laboratory Summer Science Research Abroad Teach for America Opportunities

Texas Tech University Health Sciences Center Summer Accelerated Biomedical Research Internship

Tulane University

Graduate Program in Biomedical Sciences

The Chicago Center for Systems Biology Summer REU Summer REU Program in Systems Biology

The UNCF Merck Science Initiative Science Scholarships and Fellowships

University of Chicago

REU Program in Computational Neuropsychiatric Genomics

University of Iowa

Summer Undergraduate MSTP Research Program

University of California Berkeley

Amgen Scholars UG Summer Research Program

University of Missouri Summer Internship Programs

University of Notre Dame Environmental Research Ctr. Summer Programs

(Continued Page 8)

University of Rochester **Research Positions**

University of Rochester, RC Libraries Research Initiative Award for Undergraduates - Proposals due 11/21/14

University of Rochester, UPBM deKiewiet Summer Fellowship

University of Tennessee Knoxville Summer Research Experience for Undergraduates (REU) University of Texas South Western Summer Undergraduate Research Fellowship SURF

University of Utah Undergraduate Research Programs

West Virginia University Center for Neuroscience Summer Undergraduate Internship SURI Program

World Teach Opportunities

Contributors / Feedback of UPBM E-News Welcome

Really, Throw me a Bone

Please feel free to send submissions and / or feed back to help improve this newsletter to the UPBM Administrator.

What type of things are you looking for? Anything students feel their colleagues may: benefit from, find interesting, helpful, and / or funny that is generally pertaining to the college experience. Pictures (tasteful) are good as well.

Sharing means caring.

Helpful Links This -N- That

Athletics

Biology Department

Center for Study Abroad & Interdepartmental Programs

Center for Excellence Teaching and Learning

Counseling Center

Dining

Directory

Employee Discounts

Gwen Green Career and Internship Center

Health Professions Advising Office

Facilities

Information Technology

Journal Of Undergraduate Research (JUR)

Kapalan Test Prep and Admissions

Libraries

My4Org - Your campus cheat sheet

Research Connections Newsletter

Rochester Academy of Science

Student Fellowships Office

Undergraduate Program in Biology & Medicine

Undergraduate Research Office

University Health Services

Writing Speaking and Argument Program

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