

UPBM E-NEWSLETTER

Undergraduate Program in Biology & Medicine



BLAST FROM THE PAST: Photo from [Move-In Day 2015 Photo Gallery](#)

Links

- [Biology Department Newsletter](#)
- [Senior Slide Show 2018](#)
- [UPBM Alumni-Where Are They Now?](#)
- [UPBM E-News Archive](#)
- [UPBM Home Page](#)

Welcome back UPBM! Although the ending of the summer months can be painful, we are thankful the students have returned safely and in one piece. The College's ongoing search for a new president, as well as the antics of our current President of the United States, guarantees a year full of excitement.

The incoming first-year students ([class of 2022](#)) consists of over 1,300 students from 47 states and 76 countries.

As everyone knows, sharing means caring. The UPBM invites students to write and share their amazing opportunities and adventures. Whether it is studying abroad, working in a morgue, rescuing animals, Med Life Projects, providing humanitarian aid, running with the bulls or binge-watching Netflix these experiences could provide valuable insights and inspiration to your colleagues. See pages 6 and 7 for articles by Audrey Goldfarb '19 BIO and Madeline Hoey '19, BBC

Submissions will appear in future editions of the UPBM e-newsletter. Those interested should send their stories and pictures by e-mail to BioDeptUgOffice@ur.rochester.edu.



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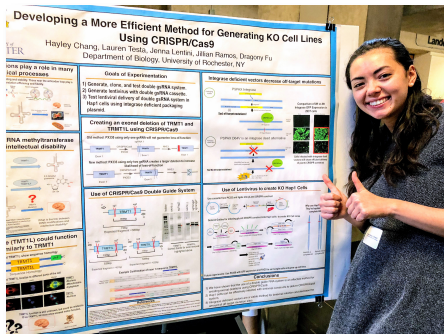
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UPBM Poster Session

Opportunity to Present, Network, or Just Have Fun & Talk Science

The Annual UPBM Poster Session is being held this year on **Friday October 5th, 2018 from 3:30 - 5pm in the Hutchison Hall, 1st Floor Green Lounge**. This is a great opportunity for UPBM majors to gain presentation experience, network and TALK SCIENCE!



It is also a great way for those who are looking to get involved in research to talk with presenters and learn from their

experiences.

UPBM majors who have conducted research and would like to present are invited to participate. This includes research that has been done inside and outside of the UR.

Students interested in presenting will need to obtain permission from their research mentor, generate a poster, and submit information to the [UPBM Poster Session Online Form](#) so that media can be generated for the event.

Honors in Research

Planning a Senior Thesis/Applications for Candidacy due **March 1st, 2019**

Students who have been involved in Biological research have the opportunity to receive honors by successfully writing and defending a thesis during their senior year. Officially declared UPBM majors with research of exceptional quality and a minimum BIO GPA of 2.7 qualify.

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.

The planning of a senior thesis generally begins before or at the beginning of the senior year. Students should consult both their major/track coordinator and research advisor before applying.

Research data obtained through Independent Research (395) courses, fellowships, internships, and voluntary work may be used to support the thesis. In addition, research performed at other institutions may be used as long as the thesis is written under the supervision of a U of R full-time faculty member.

Permission to present the research should be sent via e-mail by the research mentor to chelsea.kuhn@rochester.edu.

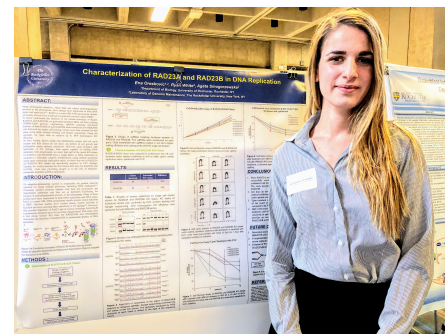
Online forms should be submitted and research mentor permission e-mailed to Chelsea Kuhn by Monday 9/17/2018.

For further information on making posters, what to expect, and logistics visit the UPBM Poster Session Webpage.

Already existing posters or printed slide show presentations may be used.

UPBM majors who do not want to present are welcome and encouraged to attend this event. In addition to student, faculty, staff, and alumni are also invited to attend. Cookies and punch will be served (pretty sweet!).

Related:
[2017 UPBM Poster Session](#)



Data collected from other institutions outside of the university may be used to support a portion of the thesis; however, all facts and figures reported as results in the thesis must be derived by the candidate, and must be part of the collaboration with the UR faculty who is overseeing the writing of student's thesis.

All interested students must submit an online [Application for Candidacy](#) by the first Monday in March of their senior year. Students enrolled in the Take-5 program at the University may choose to defend in their fifth year.

Please note that students do not need to register an Independent Research (395) course for a senior thesis unless necessary to complete experimentation. Please visit the Honors in Research Website for further details on senior thesis, defense committees, and planning timelines.

Eighteen students from the class of 2018 successfully wrote and defended a senior thesis. See UPBM E-newsletter [June 2018 Edition](#) for further details on the participants.. For more information visit the [Honors in Research Website](#)

Independent Research (395) Bio Science Courses

Overview, Registering, Deadlines...

Allow UR undergraduate students to gain research experience in the laboratories of biological science labs (on River Campus or in the URMC) for academic credit during the fall and spring semesters.



Students will need to find a faculty research mentor who works within their area of interest and will agree to instruct a research course. Visit [website](#) for tips on Finding a Research Mentor.

Once a mentor is found students will need to go through the process of registering the course within the first two weeks of the semester.

Although independent research is not a typical lecture hall experience it does require defined objectives, learning outcomes, contact hours, and criteria for evaluation that is typically associated with any credit-bearing course.

The research associated with these courses must be rooted within the biological sciences and is non-clinical in nature. Although some scientific arguments may be inspired through clinical studies it is expected that the proposed research will yield data from experimentation that involves laboratory and/or computational methods that is performed and analyzed by the student enrolled in the course.

The research must be conducted under the supervision of a faculty research mentor who is a member of the UR "Teaching Faculty".

All 395 students are required to write and submit a final report or a poster. The poster option should be beneficial to undergrads who are looking for opportunities to present at various intellectual, social gatherings such as, [The UPBM Poster Session](#) or the National Conference on Undergraduate Research (NCUR), or the [Undergraduate Research Expo](#), or any potential poster session that may be conducted at the medical center.

However, please note that students who are taking an independent research course for upper-level writing (395w) credit may not choose the poster option. If the course is being taken to satisfy a writing requirement, then the student will need to write a final report. Final reports of upper-level writing courses are expected to undergo a series of edits and rewrites that would

ideally be done with the student and their research faculty incrementally throughout the semester. Students will have until the last day of final exams to upload a copy of their final report or poster to Blackboard.

Biological Science Independent Research Courses Require Submission of Two Online Forms:

- 1 [UPBM Pre-Registration Form](#)
2. [Independent Study \(IS\) Form](#)

Typically, students meet with their faculty in order to collect the information necessary to complete the paperwork.

Then students submit the [UPBM Pre-Registration Form](#) first and wait two to three business days to receive an approval e-mail. The information from the e-mail is then used by students to file an [Independent Study \(IS\) Form](#) with the College. It can take the College up to 10 business days to review and add Independent study credit to transcripts.

Fall 2018 Deadlines:

4 Credit 395 Courses: Should start course by Friday 9/7
 -Submit Online [UPBM Pre-Registration form](#) by Friday 9/14
 -Submit Online [CCAS Independent Study form](#) by Wednesday 9/19

3 Credit 395 Courses: Should start course by Friday 9/28/18
 -Submit Online [UPBM Pre-Registration form](#) by Friday 10/5
 -Submit Online [CCAS Independent Study form](#) by Wednesday 10/10

2 Credit 395 Courses: Should start course by Friday 10/12
 -Submit Online [UPBM Pre-Registration form](#) by Friday 10/19
 -Submit Online [CCAS Independent Study form](#) by Wednesday 10/24

*Please note deadlines for Bio Sci courses are different from what is published on the [CCAS Independent Study website](#).

Related:

- [What is Independent Research?](#)
- [Credit Regulations](#)
- [Finding a Research Mentor](#)
- [How to Register](#)
- [Requirements](#)
- [Research Connections Newsletter](#)

deKiewiet Summer Fellowship 2019

Open to Junior UPBM Majors/Application Process Summary

The deKiewiet fellowship is an annual summer program that allows students the opportunity to conduct research for 10 weeks in a biological science laboratory located either on river campus or in the medical center during the summer between their junior and senior year. In addition, fellows will also gain the experience of creating and presenting a poster of their research findings at the UPBM Poster Session in October of their fellowship year.

The Fellowship is open to officially declared UPBM majors in their junior year only. Take 5 students are not eligible to apply to the fellowship in their 4th year.

UPBM majors include the following tracks BA BIO (Biology), BS BBC (Biochemistry), BS BCD (Cell and Developmental Biology), BS BCB (Computational Biology), BS BEB (Ecology and Evolutionary Biology), BS BMB (Microbiology), BS BMG (Molecular Genetics), and BS BNS (Neuroscience).

Application Process Summary

1. Find a UR Teaching Faculty member who will agree to mentor a summer research project and supervise the writing of a Formal Scientific Proposal

2. Email letter of intent to apply to [Marianne Arcoraci](#)

- Address this email to the UPBM Committee to make them aware a mentor has been found and that a proposal, both summaries, and two letters of support are being prepared
- Include faculty research mentor's name and department, and brief description of the project (one to three sentences)
- Copy in your research mentor and UPBM major advisor on the email

3. Prepare and upload the following application materials to blackboard by midnight, Monday, March 18th, 2019 (first day back from spring break)

- Formal Scientific Proposal
- Summary of "Relevant Professional Experience"
- Summary of "Research and Career Goals"

4. Ask the faculty member who has agreed to mentor the project to e-mail a Letter of Recommendation and Statement of Authorship directly to the UPBM Administrator by Monday, March 18th, 2019

5. Ask a second faculty member (preferably within the scientific field) to write a letter recommendation and have them to e-mail it directly to the UPBM Administrator by Monday March 18th, 2019








The selection process of the fellowship is competitive as the number of positions are limited. All application materials and academic records will be reviewed by the UPBM Committee. Decisions should be communicated to the applicants by mid April.

*All interested should visit the de Kiewiet Summer Fellowships website to review guidelines and consult your advisors before beginning the application process.

Related:

[Guidelines/Requirements](#)
[Finding a Research Mentor](#)
[Past Fellows](#)

deKiewiet Summer Fellows 2018

<p>Joshua Brown '19, BBC</p> 	<p>Project Title: "Characterization of Ion Channel Expression Patterns in the Brain and Heart of Long QT Syndrome" Research Mentor: Dr. David Auerbach Cardiovascular Research Institute</p>
<p>Stephanie Busch '19, BBC</p> 	<p>Project Title: "Effects of Apoptotic Cell Exposure on Mesenchymal Stem Cell Differentiation" Research Mentor: Dr. Laura Calvi Endocrinology and Metabolism Division</p>
<p>Hayley Chang '19, BCD</p> 	<p>Project Title: "Characterizing the Function of the tRNA Editing Enzyme TRMT1L" Research Mentor: Dr. Dragony Fu Biology</p>
<p>Abhishek Dedhe '19, BCB/BCS</p> 	<p>Project Title: "The Role of EYA1's Tyrosine Phosphatase Activity in Neuroblastoma Cell Proliferation" Research Mentor: Dr. Xingguo Li Pediatrics</p>
<p>Krista Pipho '18, BBC</p> 	<p>Project Title: "Is There a Positive Correlation Between Lifespan and Cellular Stress Resistance?" Research Mentor: Dr. Andrei Seluanov Biology</p>
<p>Sarah Sandkuhler, '19, BNS</p> 	<p>Project Title: "The Role of Autophagy Adaptors in Mediating Tau Clearance" Research Mentor: Dr. Gail Johnson Anesthesiology and Preoperative Medicine Research</p>
<p>Ilyad Sayed Issa '19, BS BBC</p> 	<p>Project Title: "Chemical Chaperone Modulation of Global Thermodynamic Protein Stability". Research Mentor: Dr. Sina Ghaemmaghami Biology</p>

What I Did Last Summer

Audrey Goldfarb

I spent three months this summer in the Rockefeller University SURF program, doing DNA damage repair research in Agata Smogorzewska's lab. This program was one of several I applied to in the spring. I investigated the role of metabolic factors upstream of DNA damage that may play a role in genomic stability and act as disease modifiers in Fanconi Anemia. I was able to present this work at the 2018 Innovator's Gala Technical Conference in Washington, DC.

The Experience

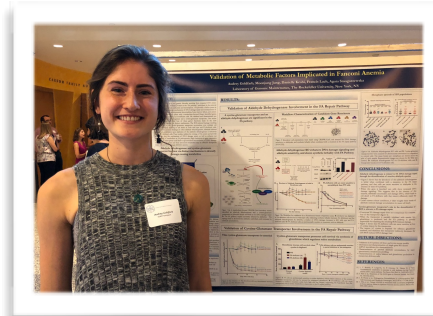
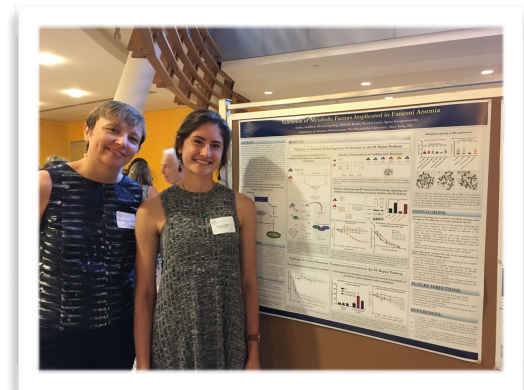
At the bench, I was able to learn new experimental techniques, formulate my own hypotheses, and design experiments to test these hypotheses. On the Rockefeller campus, there were opportunities to speak with leading researchers, attend career development meetings, and learn about cutting-edge research in myriad realms of biology. An especially memorable experience was having lunch with David Allis, a pioneer in the field of chromatin biology and a personal hero of mine. Rockefeller gave me a clear idea of what I want to do in the future, and what I need to do to get there. The resources available on campus also helped me develop my graduate school and fellowship applications.

I explored New York City and its inexhaustible offerings: stand-up comedy, Broadway, incredible museums, delicious food, and amazing people. Every part of the city had its own unique flavor, and I was never at a loss for something new and exciting. I was able to play on a mixed Ultimate Frisbee team, "The Feminists," and traveled with them to Philadelphia for a weekend tournament. I also ran and played beach volleyball in Central Park.

The Science

Fanconi anemia (FA) is a rare genetic disorder resulting from impaired DNA inter-strand crosslink repair.

Multiple proteins in the "FA pathway" participate in the removal of DNA lesions that block replication and transcription. FA provides a facile system in which to study the molecular mechanisms of DNA damage repair and

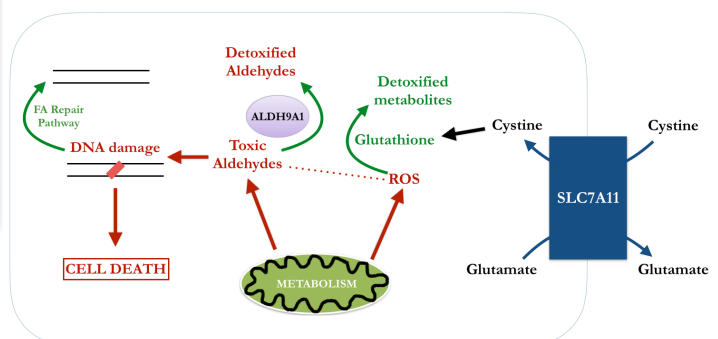


consequences of lack of repair, including developmental abnormalities, bone marrow failure, and cancer. A CRISPR/Cas9 knockout screen with a metabolism-focused library identified genes that show synthetic lethality in

FA-deficient cells. We validated and characterized two top hits, an aldehyde dehydrogenase and a cystine-glutamate transporter. Our results support the hypothesis that loss of these genes' functions leads to the slow accumulation of damage via distinct mechanisms. The ROS-induced damage resulting from knockout of the cystine-glutamate transporter accumulates over multiple cell divisions, ultimately resulting in cell death of both wild type and FA-deficient cells. Consistent with previous findings on other aldehyde dehydrogenases, aldehyde-induced damage that accumulates upon depletion of the aldehyde dehydrogenase is selectively lethal in FA-deficient cells. These studies validate the strategy of the screen and provide basic insight into the mechanisms of DNA damage repair, as well as enhance our understanding of metabolism in FA pathogenesis. Slight reductions in gene expression or function of these genes could lead to age-associated accumulation of DNA damage. Additionally, these genes and their associated metabolites may be effective therapeutic targets in some DNA damage-deficient cancers.

I'm leaving the Rockefeller SURF program as a stronger, smarter, and more driven scientist, and have made connections that I expect to keep throughout my career in academia.

See more of Audrey's work published on the campus times at the following link: [Campus Times Archives - Audrey Goldfarb](#)



What I Did Last Summer

Madeline Hoey



This past summer, I spent 6 weeks in Copenhagen, Denmark as a biochemical researcher at the Copenhagen University. When I initially set out looking for a project, I focused my online search on research teams that have motivations rooted in developing sustainable and environmentally friendly technologies. After that, it really came down to writing the right emails- ones that expressed my enthusiasm for the topic and also how I could best contribute towards the lab's research!

I eventually got into contact with the group at Copenhagen University's Section for Plant Glycobiology, headed by Dr. Bodil Jørgensen and Dr. Peter Ulvskov. Both supervisors were incredibly enthusiastic about having me stay for the summer, even helping me to find accommodation and apply for grants to support my time there. I was also immediately drawn to their research topic— the creation of bio-based composite materials from nanoscale microfibrils, which represents a commitment towards merging industrially relevant applications and fundamental academic curiosities in order to develop a technology that decreases our reliance on petroleum based plastics- and I think that's really cool!



The starting materials for the microfibrils we were generating were actually waste products from our industrial partners, which we redirected to ultimately generate a value-enhanced end

product! So far, our data indicates that the microfibrils generated from the sugar beet pulp (a waste product from the sugar industry) perform very similarly to fibrils from potato pulp, in terms of acting as a rheological modifier after chemical treatment. The potato pulp was the first waste product that we were able to successfully use to create the biocomposites, so similarities in rheological properties indicate that sugar beets are another good candidate for this end product!

This is probably the most exciting aspect to me- the real world application of an idea that has been confined to a single laboratory for months or even years. One immediate industrial application of the nanoscale microfibrils we have generated is in rheological modifiers, meaning that they can manipulate the flow behavior and viscosity of materials such as paints and gels. Also, end users of high performance composites comprise the automotive industry and even manufacturers of wind turbine wings.

Since I was in Denmark for a relatively short amount of time, and had spent some time traveling before the position started, I stayed mostly in Copenhagen. Having a bike made it incredibly easy to commute, meet friends, explore the surrounding areas, and get a clearer picture for what it was like to live as a Dane. Some friends and I even rented a small boat so that we could explore the canals during the nicer weather.



UPBM Peer Advisors 2018-2019

Advice from students who have been there and done that...

Peer Advisors are senior undergraduate students who major within the biological sciences and have gone through training with the College Center for Advising Services in coordination with the Undergraduate Program in Biology and Medicine. They can help students connect with faculty, discuss academics and share their research experiences. If they can't answer your question, they are happy to point you in the right direction!

The peer advisors are a great resource for students seeking information on things like what they did to prepare for med school, or their experiences with studying abroad, or how they found their research mentors and much more. Benefit from those who have chosen similar career paths.

The profiles of this year's advisors are listed below. Be sure to read up on their backgrounds and reach out to them with your questions. You may contact them by sending e-mail to the entire squad UPBMPeerAdvisers@ur.rochester.edu or individually (see profiles for addresses below).

Hayley Chang

hchang32@u.rochester.edu



Major: Cell and Developmental Biology

Research: NSF REU Recipient and De Kiewiet Fellow. Conducts research in the Dr. Dragony Fu Lab on tRNA modification enzymes using modern molecular biology and biochemistry techniques.

Activities: President of Korean Percussion Group, TA for Organic Chemistry Labs I & II, Biochemistry, and Molecular Biology, HELP Volunteer at Highland Hospital.

Audrey Goldfarb

agoldfa5@u.rochester.edu



Major: Biology

Minor: Journalism

Research: Aging and cancer research in the Gorbunova/Seluanov lab at UR, SURF program at Rockefeller University, doing DNA damage repair research in Agata Smogorzewska's lab, funded by DISCOVER grant to pursue epigenetic sex dimorphism research in Richard Festenstein's lab at Imperial College London

Study abroad: Research at Imperial College London

Internships: American Bird Conservancy writing and communications intern

Activities: TA for Principles of Genetics, Biochemistry Honors, Biology of Aging, and Eukaryotic Gene Regulation, Tutoring in the local community, writing and editing for Campus Times, UR Ultimate Frisbee, UR varsity volleyball for 2 years

Madeline Hoey

mhoey@u.rochester.edu



Major: Biochemistry

Minor: Studio Arts

Study abroad: Uppsala, Sweden

Research: Ghaemmaghami lab as an REU Summer, Intern/Independent Researcher to investigate the relationship between protein homeostasis and the longevity of a species.

Internships: Summer 2016: Co-develop a Partnership Action Framework with a local NGO, Global Education Partnership--teach English in Yunnan Province, China.

Activities: Varsity Cross Country/Track & Field, Society of Undergraduate Biology Students (SUBS) Executive Board, was a TA for Chemistry 131

John Martinez
jmarti52@u.rochester.edu



Major: Biology, Art History
Minor: History
Research: Butler Lab (Microbiology) at the Med Center since December 2016.
Activities: Society of Undergraduate Biology Students, Undergraduate Council of Art and Art History, Teaching assistant for BIO 110 (twice), BIO 113 and BIO 198P (twice).

Andrew Soborowski
asoborow@u.rochester.edu



Major: Biological Sciences - Computational Biology
Activities: Previously a Math 162 TA, President of PCC, Secretary/Treasurer of CIF, SUBS member

Jacob Squicciarini
jsquicci@u.rochester.edu



Major: Biology with a specialty in Molecular Genetics
Minor: Clinical Psychology
Research: Worked in Gorbunova Lab for a year studying ribosome biogenesis
Activities: Was a TA for 112, TA for BIO198 and BIO198p

Leta Yi
lyi3@u.rochester.edu



Major: Biology
Minor: Health Policy
Study abroad: London, UK and Toledo, Spain
Research: Research Assistant in the Robert Lab, Department of Microbiology and Immunology of URMC; Emergency Department Research Assistant at Strong Memorial Hospital
Internships: Intern for UK Parliament; Atlantis Project Pre-medical Fellow
Activities: Was a TA for Bio 110 and Bio 110 Lab; Was Co-President for Asian American Alliance; Volunteer for Literacy Volunteers of Rochester; Volunteer for Foodlink

Michelle Hollenberg
mhollenb@u.rochester.edu



Major: Business - pre-med track
Activities: Organic chemistry TA and is on the e-board for both Chabad and her sorority

Evaluation of Transfer Credit

AKA Course Approval

TRANSFER STUDENTS: Although the credit from outside courses may transfer to the UR you will need to make sure the courses you have taken are equivalent to the ones needed to meet the requirements of your intended major or minor. Be sure to obtain a copy of the syllabi to have your courses evaluated and approved for application to your major.

SUMMER CATCH UP COURSES: Taking a course at a local college over the summer? Research the course catalogs of the accredited college & universities closest to you to find a course that meets your needed and obtain a copy of the syllabus for further departmental evaluation of its equivalency to UR Biology Courses and advisor approval.

STUDY ABROAD COURSES: Looking for courses to take while studying abroad? Contact the Study Abroad office to get information on biology course offerings from the institution of interest during the semester you plan on attending. Make sure the institution will offer the course during the semester you plan to attend and that a syllabus is obtained for further departmental evaluation and advisor approval.

If you are a UPBM major be sure to schedule a meeting with the [UPBM administrator](#) and faculty advisor to discuss how the course will fit into your schedule and academic goals.

*The Biology Department does have information on file about past course evaluation submission. However, this information is not always reliable as change is constant. Conducting individual investigations is recommended

TIPS WHEN SHOPPING FOR COURSES ELSEWHERE - A checklist of things to keep in mind:

- Make sure the course is not “pre-professional” in nature. Examples include most courses in nutrition, nursing or involving technical training that might lead to a career such as emergency medical technician (E.M.T.) training.
- Course is rooted within the biological sciences -Earth and Environmental Sciences is a different department.
- Make sure the course is applicable to a biological or life science degree at the institution where it is being taken.
- If considering a course from a 2-year institution make sure the course is intended for students transferring to 4-year institutions (info can be found in course catalog).

TURNAROUND: Course approvals are reviewed around the middle and the end of each month so please build in enough turn around time. Not including syllabi and incomplete forms will slow down the process.

Related

[BIOTransferCreditEvaluationForm](#)

Intensive English Language Program

The University of Rochester is offering two sessions of an Intensive English Language program. The first session runs from September 10th-November 16th. Each session runs for 10 weeks.

Session one facilitates acquisition and refinement of skills. Session two focuses on employing skills to enhance critical analysis and academic confidence.

The cost varies depending on the number of courses you select. A one-time administrative fee of \$75 will apply.

Here are three great reasons you should study the IEP at the University of Rochester:

- 1.) Improve your English comprehension and you will improve your overall grades
- 2.) Your academic self-confidence will increase as you increase your English skills

3.) Extra language support and working with your international peers will help you keep up with the rigors of our world-class institution

The IEP program modules include:

- Academic Reading & Writing *2.5 hours a week*
- Academic Speaking & Listening *2.5 hours a week*
- General English: *2.5 hours a week*
- Learning & Speaking about US Life & Culture: *1 hour a week*

For more information, please visit the Global Engagement website. For any enrollment questions, please email IEP@rochester.edu.

Related:

[Global Engagement Programs and Partnerships IEP Interest Form](#)

Community-Engaged Courses

Rochester Center for Community Leadership
Fall 2018

ANT 101: Cultural Anthropology
 ASL 101, 102, 105, 106, 203, and 204
 BIO 339: Community-Engaged Practicum
 CAS 125: Creating an Inclusive Campus Community
 CAS 303: Eco Reps
 CAS 350: Rising Leaders
 CSC 299: Social Implications of Computing
 DAN 130, 250, and 385
 EES 213: Hydrology and Water Resources
 EES 251: Into to GIS
 ENG 251: Writing and Reporting the News
 FMS 247: Film History, Early Cinema
 GSW 100: Gender and Sexuality in Social Protests
 and Film Activism
 GSW 213: Politics of Nature
 HIS 139: History of India
 HIS 235: Immigration and the Americas
 HIS 279: The Seward Family
 LIN 105: Language in Advertising

PH 101: Intro to Public Health
 PH 206: Feminism, Gender, and Health
 PH 297: Community-Engaged Internship
 PC 233: Innovation in Public Service
 PSC 242: Research Practicum in Criminal Justice
 Reform
 PSC 246: Environmental Law
 PSC 304: Urban Crime and Justice
 REL 170: Religion and Hip-Hop
 REL 239: Spiritualism in America
 SA 222: Advanced Painting
 SA 252: Art, Environment, and Action
 WRT 272: Professional Identity

Community-Engaged coursework can be applied
 toward the requirements of the Citation in
 Community-Engaged Scholarship

Visit their website [here](#).

Center for Excellence in Teaching and Learning

1-154 Dewey Hall/cetl@rochester.edu
 Arts, Sciences & Engineering

The Center for Excellence in Teaching and Learning (CETL) supports the College's tradition of excellence by providing faculty, graduate students, and undergraduates with a wide range of teaching and learning services.

Workshops, study groups, and tutoring all include credit-bearing training designed to produce confident and capable peer educators. Students interested in applying for these positions can find additional information on the CETL website or by visiting the front desk at 1-154 Dewey Hall

Tutoring Program: One on one tutoring can be scheduled online.

Study Groups: Study collaboratively with classmates guided by a student leader who did well in the same course within the last year or two.

Study Skills Consulting: Confidential one on one support with a study skills consultant to improve your academic performance and efficiency.

Related Links:

[Center for Integration of Research, Teaching and Learning \(CIRTL\)](#)

[Study Groups](#)

[Study Skills](#)

[Teaching Support](#)

[Tutoring](#)

[Workshops](#)

Looking to Present?

Brush up on Your Presentation Skills and Take Advantage of Networking Opportunities!

Fall 2018

UPBM Poster Session

Friday, October 5th, 3:30-5pm
Hutchison Hall, 1st Floor Green Lounge

Interested? Look at more information on Page 3

Annual Scientific Symposium

Tuesday, November 13th
Poster presentation from 1-3 in Flaum Atrium

All members of the University community are invited to present posters on basic or clinical cancer-related research. "Cancer-related" may be interpreted in the broadest sense.

Poster themes for this year's symposium are:

- Molecular and Cell Biology
- Blood Cancers/Blood/Tumor Microenvironment/ Immunotherapy
- Solid Tumor Biology and Therapy
- Cancer Control/Epidemiology

Interested? Register!

The deadline for poster registration submission is **October 31, 2018**. Completed poster registration forms should be sent by email to Bridget Chartraw at bridget_chartraw@urmc.rochester.edu

Spring 2019

Undergraduate Research Exposition (URE)

Date TBD

This college-wide event is open to students at any level within their undergraduate career. The Expo showcases the enthusiasm for learning that takes place in all aspects of the University. The Undergraduate Research Exposition consists of three events—the symposium, poster presentation, and awards.

The symposium is divided into the four disciplines: humanities, social science, engineering and mathematics, and natural science. Three candidates reflecting the most accomplished undergraduate research from each discipline will discuss their work.

Poster Presentations will be an opportunity for all students who would like to give a brief synopsis of their research that they have conducted within the past year. Awards will be given out for presentations in the symposium and the poster session.

Interested? Check back on the [URE website](#) in January to see final details about the event.

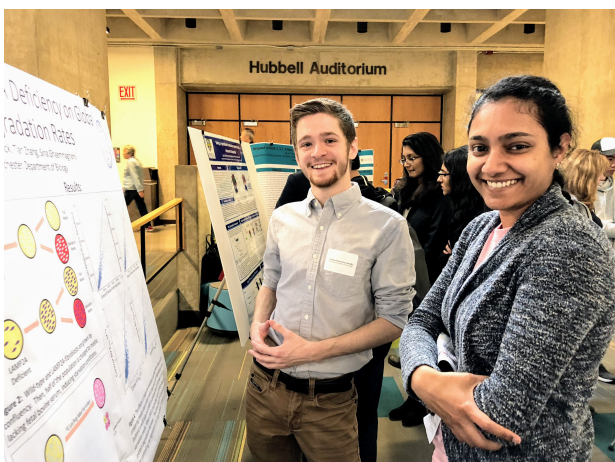
National Conference on Undergraduate Research (NCUR)

Date TBD

Place TBD

NCUR is an annual, national conference for undergraduate students to present primary research and artistic performance. Students can present their work in an oral presentation or on a poster. Participants are also able to submit their written work to be considered for publication in the annual NCUR Proceedings.

Find out more at the [NCUR website](#) or view the [application guidelines](#) for further information.



Explore the Biotech Industry on a Boston Road Trip!

Gwen M. Greene Center for Career Education and Connections

Join the Gwen M. Greene Center on a road trip to Boston to explore the Biotech and Life Sciences Industry!

Network with employers and UR alumni! Learn about career and internship opportunities by visiting companies such as Bristol-Myers Squibb, Warp Drive Bio, Invicro, Seres Therapeutics, and several more!

Program Details

Accompanied by Greene Center staff, students will visit 5-8 organizations, tour laboratories, hear about cutting-edge research from industry experts, and network with alumni.

Eligibility

The industry road trip is open to **sophomores, juniors, and seniors** who are interested in learning more about the biotech and life sciences sector. Space is limited to 20 students.

Program Dates

This trip takes place over Fall Break on October 15-16, 2018.

Timeline

The application deadline is **Friday, September 14 by noon**.

Notification of acceptance will be sent to students via email on Tuesday, September 18.

Mandatory student orientation will take place on Wednesday, September 19 from 4-5 p.m. in the Greene Center.

Cost

Students must support their own travel and lodging. Hotel suggestions will be provided by the Gwen M. Greene Center for Career Exploration and Connections.

Funding for travel may be available for students with financial need. If you check the financial need box on your application, we will contact you to discuss available funding.

How to Apply

Interested students must apply via Handshake at https://rochester.joinhandshake.com/jobs/1876248/share_preview

Student Selection Process

The Greene Center will select students based on the overall strength and quality of the application materials and resume.

Please email Christina Pero (christina.pero@rochester.edu) or Sofia Pavan Macias (sofia.pavanmacias@rochester.edu) with any questions.



Society for Undergraduate Biology Students

Mission/How to Join/Website

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, including the UPNM Pizza Study Break, so stay tuned for more information on club events and dates.

Weekly Study Groups with SUBS

Every Wednesday starting September 19th from 7-8pm SUBS will be hosting a study group for all biology majors. Teaching Assistants and Peer Advisors will be in attendance. This is not a tutoring session, but instead a way for biology majors of all different levels and backgrounds to study and help each other.

Students can join by visiting the SUBS Website.

Related:

[Society for Undergraduate Biology Students Website](#)

[Online SUBS T-shirt Order Form](#)

UPBM Majors Honored for Excellence in Academics, Athletics

Congratulations Christina Feller '19, BNS/PSY and Courtney Vidovich '19, BNS

Article from 8/28/2018 @rochester enewsletter: [Read about all of the 2018 Garnish Scholar Athletes.](#)



"Ten student-athletes who have excelled in competition and in academics will be honored for their achievements at various athletic events during the University of Rochester's first big home weekend of the fall semester.

In all, five men and five women will receive the 2018 Lysle "Spike" Garnish Scholar Awards during the weekend of September 7-9. Presentations will be made by [George VanderZwaag](#), Executive Director of Athletics

at the university along with other members of the Garnish Scholar Committee.

Eight of the students will be honored on September 8 at halftime of Rochester's home opener in football versus Carnegie Mellon University. Kickoff is scheduled for 12 p.m. with the ceremonies anticipated around 1:15 p.m. depending on how quickly the opening half proceeds.

The other two students will be honored just before their teams play a home game that same weekend – a volleyball player on September 7, a field hockey player on September 9.

The 2018 honorees are [Kylee Bartlett](#), women's track and field (Williamstown, NY), majoring in brain & cognitive science, [Eric Feirouz](#), swimming (Acton, MA), majoring in mechanical engineering, [Christina Feller](#), women's soccer (Elm Grove, WI), majoring in neuroscience and psychology, [Aiden Finch](#), baseball (Los Gatos, CA), majoring in mechanical engineering, and [Bryce Ikeda](#), men's soccer, (Tacoma, WA), majoring in electrical and computer engineering.

Also, [Harleigh Kaczegowicz](#), softball (Trumbull, CT), majoring in mechanical engineering, [Miranda Lakis](#), field hockey (Brighton, NY), majoring in psychology, [Benjamin Martell](#), men's cross country/track and field, (Lexington, MA), majoring in mechanical

engineering, [Courtney Vidovich](#), women's volleyball (Douglassville, PA), majoring in neuroscience, and [Jacob Wittig](#), men's basketball (Manlius, NY), majoring in business.



They have vast success on a team and individual basis. Bartlett is a three-time national champion in the multi-events in track and field. Finch helped Rochester to the brink of the NCAA baseball playoffs last spring. Ikeda, Kaczegowicz, Lakis, and Wittig have all helped their teams reach NCAA playoff competition.

"I am continually inspired by what our students are able to achieve when given the opportunities at a great institution like Rochester," VanderZwaag said.

These students have undertaken internships around the country (Finch in San Jose, CA; Feirouz in Waterbury, VT; Ikeda in Pittsburgh, PA; Martell in San Diego, CA), at the University (Feller and Vidovich at the UR Medical Center), and overseas (Bartlett studied in Italy this summer).

"What we know about the students on our teams is that they set high goals for themselves inside and outside the classroom," VanderZwaag said. "Rochester students are able to demonstrate educational excellence through an outstanding combination of athletic and academic achievement."

The Garnish Program was created in honor of Lysle "Spike" Garnish, coach and mentor to many Rochester student-athletes from 1930 to 1948. He became a trainer and assistant basketball coach in 1931. He was named an assistant baseball coach in 1932. From 1945-48, Garnish was an assistant football coach." For full article visit: <https://static.uofrathletics.com/custompages/GARNISH%20HONORS/2018/2018%20Garnish%20Scholar%20Program%20-%20Final.pdf>

Senior Slide Show

Never too Early for Pictures

May is going to be here in a hot Texas minute people.

The senior slide show is a collection of pictures from our graduates that is shown at the Biology Department Diploma Ceremony on the weekend of May 17th-19th. It is a great way to celebrate the times you've shared and will always cherish. Pictures should be of you and your colleagues (Bio and Non-BIO) having fun. Yes, your parents will probably be seeing the slide show if they attend the Diploma Ceremony.

Please feel free to forward your pics, selfies and other various photos to [Chelsea Kuhn](#) in the UPBM Office.

Related:

[Senior Slide Show 2018](#)

[UPBM Newsletter June 2018 Special Edition](#)

Opportunities

[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](#)

[Cincinnati Children's Hospital](#)
[Summer Undergraduate Research Fellowship \(SURF\)](#)

[City Internships](#)
[Program Overview](#)

[Cleveland Clinic Center for Reproductive Medicine](#)
[Summer Internship Program](#)

[Cold Spring Harbor Watson School of Biological Sciences](#)
[Summer Undergraduate Research Program](#)

[Columbia University / Barnard College](#)
[Amgen Scholars Summer Research Program](#)

[Cornell University](#)
[Boyce Thompson Institute for Plant Research Internships](#)

[Council on Undergraduate Research](#)
[National Conference on Undergraduate Research \(NCUR\)](#)

[Davis Projects for Peace](#)
[Kathryn W. Davis Projects For Peace](#)

[Deutscher Akademischer Austausch Dienst \(DAAD\)](#)
[Paid Research Internships in Germany](#)

[Duke University / Robert Noyce](#)
[Teacher Fellowship Program](#)

[EPA Internships](#)
[Medical Research and Health Science Internships Available in Europe!](#)

[Fulbright Scholarship](#)
[US Student Program](#)

[Gerstner Sloan-Kettering](#)
[Summer Undergraduate Research Program](#)

[GEHI](#)
[Ghana Health and Education Initiative](#)

[Goldwater \(Barry\)](#)
[Scholarship & Excellent in Education Program](#)

[Harvard School of Public Health](#)
[Summer Program in Biological Sciences Public Health](#)

[Hutchinson \(Fred\) Cancer Research Center](#)
[Summer Undergraduate Research Program](#)

[Hutchinson \(Fred\) Cancer Research Center](#)
[Internships in Scientific Research or Medicine](#)

[Homeland Security DHS Education Programs](#)
[HS-STEM Summer Internship Program](#)

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

Journal of Young Investigators
[Author Guidelines Requirements](#)

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](#)

National Collegiate Research Conference (NCRC)
[NCRC 2018 Applications](#)

Nemours/Alfred I. duPont Hospital for Children and Nemours
Office of Health Equity and Inclusion
[Summer Undergrad Research Scholarship](#)

One Heart Source
[Volunteer Opportunities in Africa](#)

PIRG - Job Openings for Graduating Seniors
[Jobs](#)

Roswell Park Cancer Institute
[Summer Research Programs](#)

Southern Teaching Agency
[Spring Job Fairs](#)

SUNY Oswego Global Laboratory
[Summer Science Research Abroad](#)

Teach for America
[Opportunities](#)

Texas Tech University Health Sciences Center
[Summer Accelerated Biomedical Research Internships](#)

The UNCF Merck Science Initiative
[Science Scholarships and Fellowships](#)

University of Iowa
[Summer Undergraduate MSTP Research Program](#)

University of Michigan
[Summer at Michigan for Undergraduate Research Training](#)

University of Missouri
[Summer Research Programs](#)
[Cell and Molecular Biology Summer Research Positions](#)

University of Notre Dame Environmental Research Center
[Research](#)

University of Rochester
[Undergraduate Research Exposition \(URE\)](#)

University of Rochester, RC Libraries
[Research Initiative Award for Undergraduates](#)

University of Rochester, UPBM
[deKiewiet Summer Fellowship](#)

University of Texas South Western
[Summer Undergraduate Research Fellowship SURF](#)

University of Utah
[Undergraduate Research Programs](#)

University of Virginia / Mountain Lake Biological Station
[Summer Research Experiences of Undergraduates](#)

Upstate Medical University
[Research Programs in Biomedical Sciences](#)
[Fellowship Program](#)

West Virginia University Center for Neuroscience
[Summer Undergraduate Internship SURI Program](#)

The Woodrow Willson National Fellowship Foundation
[Teaching Fellowships](#)

World Teach
[Programs](#)

Upcoming Events 2018-2019

Emails will be Sent as We Get Closer to the Events

Friday, October 5th	UPBM Poster Session
Friday, October 26th	SUBS Halloween Event, 1-3pm Hutchison Hall
Tuesday, October 30th	Undergraduate Research Fair, 3-5pm, Feldman Ballroom
October 2018 (tbd)	Informational Sessions National Student Fellowships & Awards
Friday, November 30th	SUBS Volleyball Event - Students vs. Faculty, Goergen
December 2018 (tbd)	UPBM Pizza Break (Around Reading Period)
Friday, March 1st	de Kiewiet Fellowship Letter of Intent Emails Due (Juniors Only)
Friday, March 1st	Honors in Research Application for Candidacy Due (Seniors Only)
Monday, March 18th	de Kiewiet Fellowship Letter of Intent Emails Due (Juniors Only)
May 2019 (tbd)	UPBM Pizza Break (Around Reading Period)
Friday, May 3rd	Honors Research Candidates Must Defend Thesis
Sunday, May 19th	Biology Department Diploma Ceremony (Commencement)

Helpful Links

[Athletics](#)
[Biology Department](#)
[Center for Study Abroad & Interdepartmental Programs](#)
[Counseling Center](#)
[Dining](#)
[Directory](#)
[English Language Program](#)
[Gwen Green Career and Internship Center](#)
[Facilities](#)

[Journal of Undergraduate Research \(JUR\)](#)
[Kaplan Test Prep and Admissions](#)
[Libraries](#)
[Pre-Med and Allied health Professions Advising](#)
[Research Connections Newsletter](#)
[Rochester Academy of Science](#)
[Undergraduate Program in Biology & Medicine](#)
[Undergraduate Research Office](#)
[University Health Services](#)

Feedback

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

What type of things are you looking for? What do you and your colleagues benefit from, find interesting, helpful, and/or funny that is generally related to the college experience. Pictures of events or activities pertaining to UPBM are also beneficial.

UPBM e-news is produced by the Department Of Biology, Undergraduate Program in Biology & Medicine during the academic year. You are receiving this message as a member of the UPBM community. Please note that the opportunities noted in this issue are not an endorsement. Do not forward this newsletter to other distribution lists. If you are receiving multiple copies or believe this message was sent to you in error, please contact the UPBM Administrator.
Contact information

Contact Us

Department of Biology Director: Dr. Cheeptip Benyajati
Email: cheeptip.benyajati@rochester.edu
Phone: 585-275-8040

Department of Biology Director: Dr. Elaine Sia
Email: elaine.sia@rochester.edu
Phone: 585-275-9275

Program Coordinator: Marianne Arcoraci
Email: marianne.arcoraci@rochester.edu
Phone: 585-275-3850

Undergraduate Course Coordinator: Allyson Withey
Email: allyson.withey@rochester.edu
Phone: 585-275-3685

Undergraduate Secretary: Chelsea Kuhn
Email: chelsea.kuhn@rochester.edu
Phone: 585-273-3685

Associate Director for Student Affairs: Danielle Presgraves
Email: danielle.presgraves@rochester.edu
Phone: 585-275-0925

[UPBM Website](#)



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