# **UPBM E-NEWSLETTER**

Undergraduate Program in Biology & Medicine



Some of our de Kiewiet Fellows from the summer of 2018!

Welcome back to campus UPBM! Before you know it, it will be time to start thinking of opportunities to take advantage of over the summer. Why not think about staying in Rochester and apply to be a de Kieiwet Research Fellow for the summer of 2019? This opportunity is open to declared UPBM majors, look through the newsletter to find more or look at our de Kiewiet webpage.

Like our Facebook page for the latest information on UPBM events, opportunities, and important deadlines!



University of Rochester Undergraduate Program in Biology and Medicine UPBM

## Links

- Biology Department Newsletter
- 2018 Poster Session
- UPBM E-News Archive
- UPBM Home Page
- UPBM Facebook Page





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## Center for Excellence in Teaching and Learning

#### Assistant Dean and Executive Director, Rachel Remmel

The Center for Excellence in Teaching and Learning supports student learning through a variety of free and confidential services. Study skills consultants meet one-on-one with students to analyze learning approaches and to suggest new ways to organize information, manage time, stay focused, prepare for tests, and study effectively. Students can also enroll in a semester-long study skills course called Methods of Inquiry (CAS 142), while student organizations can request study skills workshops. In addition, CETL offers one-on-one tutoring appointments and drop-in group tutoring. Study groups are course-specific and meet weekly throughout the semester under the guidance of a student leader. In the Study

Zone, students commit to spending three hours a week in the Study Zone's quiet workspace and benefit from planning and debriefing their study sessions with a student leader. Finally, CETL is a great place to for students to work, as we employ student leaders in all of these programs.

To sign up for any of these services, stop by CETL in Dewey 1-154 or contact us at 5-9049 or cetl@ur.rochester.edu.

**CETL** Webpage





## Congratulations to UPBM Susan B. Anthony Legacy Award Winner!

Article from @rochester e-newsletter: Read about all of the Award Winners



Kavya Bana '19 Sue S. Stewart Award

Presented to a senior undergraduate woman "whose life at the University has been distinguished by a commitment to justice, equality, and community service relating to diversity and inclusion."

Bana is a microbiology and political science dual major from Simsbury, Connecticut. She's a member of Kappa Delta, former president of STEM Initiative and co-president of College Democrats. She also served as student coordinator for Wilson Day last fall. She'll pursue primary care or immunology at the Medical Center this fall and hopes to bridge health disparities in underserved communities. She'll attend medical school at the University in the fall.

# Society of Undergraduate Biology Students SUBS Events

#### **SUBS Mission Statement**

"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 the needs of the membership through member input."

### **Upcoming Events**

## Summer Research Panel Time and Place TBD

Come and learn from fellow recipients and people who have done work in the industry. Get excited with us for tentative summer research choices and fellowship opportunities.

More information will be available in the near future.

#### SUBS Study Group Time and Place TBD

Join SUBS in a collaborative study space for biology majors of different levels and backgrounds! This is not tutoring hours, but many peer advisors and TAs will be in attendance.

## Gwen M. Greene Center

#### Health Committee Letter Process Now Open for Medical, Dental and Vet Applicants

If you are applying to Medical, Dental or Veterinary school in the upcoming 2019 cycle, you may be eligible to receive a Health Committee Letter. You can learn more about the Health Committee Letter, the Health Professions Questionnaire (HPQ), and eligibility requirements here. Please ensure to read through the instructions carefully before submitting your HPQ, which serves as your formal request for a Health Committee Letter.

You can access the HPQ for the 2019 application cycle here. Submissions are due by January 31, 2019.

If you have questions about the HPQ or your application to Medical, Dental or Veterinary school, please make an appointment with a Greene Center advisor through Handshake.

#### Greene Center Events

Brown Bag Lunch Series: Exploring a Career as a Physicians Assistant

Friday, February 15th, 12-1pm

The Regeneron Way: Reinvent Invention
Tuesday, February 12th, 4-5:30
More Information

Resume Drive-Thru

Monday, February 18th, 11:30-1pm More Information

2019 Arizona BASIS.ed Teacher Career Fair Saturday, February 23, 10am-1pm Bioethics at the Movies: One Flew Over the

Cuckoo's Nest

Monday, February 27th, 6:30pm

Alcon Laboratories Information Session Thursday, February 28th, 6-7pm

Careers in Medicine Conversation with Dr. Seth Rubenstein, DPB, '79

Thursday, March 17th, 7-8pm

Check out all the events on their website.

# Undergraduate Research Conferences Information & Deadlines

#### National Conference on Undergraduate Research NCUR

NCUR Application open from January 28th-April 10th!

National Conference on Undergraduate Research (NCUR) is an annual conference for primary research and artistic performance by undergraduate students, encompassing the natural and social sciences, the humanities, the arts, and engineering. Each year, NCUR hosts around 3,500-4,000 students across the world.

Online Registration opens on January 28th, 2019, the NCUR 2019 Conference is held from Wednesday, April 10th-Saturday, April 13th at Kennesaw State University.

More Information: NCUR Website NCUR 2019 Timeline

Want to learn more about research? Visit the Office of Undergraduate Research website.

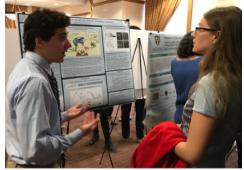
#### Undergraduate Research Exposition

April 19th, 2019, Application Open!

The Undergraduate Research Exposition is a college wide event in which University of Rochester students at all levels and in all areas of study are invited to present their investigative and creative work. The Expo reflects the passion for learning that enlivens the University, professors and students alike, and that finds expression in varied forms, in every area of study.

If you are interested in being apart of the Symposium or Poster Session, applications are due by March 1, 2019.

More Information: URE Website



Credit University of Rochester

## The Undergraduate Placement Program

The Undergraduate Placement Program (UR-UPP) is a support service that helps students navigate the process of preparing for research on campus or at URMC. We can help you:

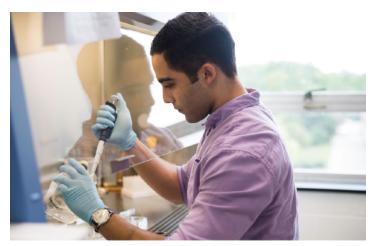
- Learn practical ways to stand out as a research candidate
- Develop effective techniques for communicating professionally with faculty and research staff
- Search and apply for research opportunities in life and health science
- Get the most out of your research experience at Rochester

Visit the UR-UPP website to browse resources, advising services, and projects publicized by research faculty through UR-UPP's infrastructure. Subscribe to the biweekly newsletter to stay up-to-date on positions and on-campus events relevant to undergraduate researchers!

Visit their website here

Stay up to date on opportunities, events, and deadlines on the UR-UPP by subscribing to their bi-weekly newsletter.

## How to Find a Research Mentor



J. Adam Fenster / University of Rochester

The UR is an ever-expanding top-tier research facility. As such, students need to create opportunities and take control of their careers by finding a faculty member who conducts non-clinical research within their area of interest who will agree to take them on as an independent research student.

Undergraduates should 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.

Some students start their investigations by connecting with faculty in the courses they enjoy or by contacting the advisor of their intended major. While others network with faculty and peers, who are already researching in their area of interest or by searching the UR website and reading up on faculty research profiles. The key is to maintain professionalism and thoughtful persistence in all communications attempts with faculty (see sample email on back).

Please note that faculty who instruct 395 courses must be members of the UR "full-time teaching faculty" and are

willing to take on 395 students. Members of the "Research faculty" may also instruct 395 courses; however, they must do so under the supervision of their department chair. In some cases department chairs may approve research faculty to supervise independent research courses; however, special arrangements must be made directly with the College Center for Advising Services (CCAS).

Another starting point for students is by developing a professional rapport with faculty by taking on technical positions through student employment or on a voluntary basis. However, please note students may not receive financial compensation and credit for the same research should the faculty agree to instruct a 395 course.

These are a few of many ways students find research mentors. The key is to self-start, do well in academics, and be on the lookout for summer research opportunities as well as developmental programs and workshops offered periodically through the Office of Undergraduate Research and Carlson Science and Engineering Library. Below are a few resources to help students get started.

#### **UR Departmental Faculty Research Profiles**

Biochemistry and Biophysics
Biology
Microbiology and Immunology
Neuroscience
Pathology and Laboratory Medicine
Pharmacology and Physiology
UR Medical Center (URMC) Faculty Lists

#### **Other Resources**

Carlson Science and Engineering Library Undergraduate Program in Biology and Medicine (UPBM)

- Independent Research Requirements/Registration
- deKiewiet Summer Fellowship
- E-Newsletter

Northern Eastern University Web Guru Guide for Undergraduate Research

## Summer Research

Trying to find a way to stay in Rochester over the summer and conduct research?

#### de Kiewiet Fellowship

Juniors in UPBM can apply to the de Kiewiet Summer Research Fellowship program to gain research experience in the laboratories of biological science labs on the River Campus or at the Medical Center during the summer. Fellowship students work with a faculty mentor in their area of interest and will create and present a poster of their research findings at the UPBM Poster Session in October of their fellowship year. *Learn more on page 9.* 



#### **Discover Grants**

Visit the Office of Undergraduate Research website to read up on the available great funding and how to apply for it. Only current, matriculated first-year, sophomores, juniors and non-graduating seniors can apply. Your summer research opportunity must be set in stone to apply for funding. Please note there are deadlines for each! *Applications set to open March 1, 2019.* 

**Discover Grant Information** 

#### **Research and Innovation Grant**

Research and Innovation Grans (RIG) can be used for numerous experiences for undergraduates. These funds can only be used outside of the academic year. Please look on the RIG Grant Accessing Funds page for deadlines.

#### More Information

Office of Undergraduate Research Website Internal Funding Opportunities External Funding Opportunities

## College Supplemental Funding

For Programs, Conferences, Competitions, and Events

The College Supplemental Fund Application allows students to request supplemental funding to attend or participate in academic, professional, or experiential programs.

Funding is available on a rolling basis, however, applications must be submitted at least three weeks in advance, or else they will not be considered. Relevant departments may be asked to contribute funding toward the overall need as indicated on the application. Students may request funds as individuals, or on behalf of a group. Only one representative from each group should complete an application.

The College Supplemental Fund Application is not intended to replace existing funding opportunities, such as the funding available from the Student Association Appropriations Committee (SAAC). Groups that would like to request funding from the Student Association are required to complete a separate application through the Campus Community Connection.

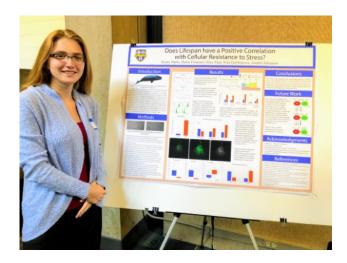
Interested in applying? Learn more on their website Apply!



# Start Thinking Ahead! Important Deadlines to Keep in Mind...

## Honors in Research

Interested Seniors Submit Application for Candidacy by March 4, 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.

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.

Interested students must submit an application for candidacy to the UPBM office (Hutchison 487) with the endorsing signatures of both their research mentor and major/track coordinator by, Monday, March 4th, 2019. 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.



## de Kiewiet Summer Fellowship 2019

#### Open to Junior UPBM Majors

The de Kiewiet Fellowship affords undergraduate UPBM majors the opportunity to stay in Rochester during the summer to work on a research project in the lab of the research mentor of their choice.

Students have the flexibility of finding a research mentor who works within their area of interest and is a member of the UR teaching faculty.

Summer projects must be rooted in the biological sciences and non-clinical. Although some scientific arguments may originate through clinical studies, the proposed research should yield data from experimentation involving laboratory or computational methods of analysis. For tips on how to find a research mentor students should consult with their advisor or visit the UPBM Finding a Research Mentor Website.

The Fellowship runs for ten weeks between June and August. The stipend amount for each fellow is \$4,000 and is paid out in bi-weekly installments.

Fellows are expected to work for 40 hours a week and will need to create and present a poster of their research findings at the UPBM Poster Session in October of their fellowship year. Days and shifts are at the discretion of their mentor.

Officially declared UPBM majors in their junior year are invited to submit research proposals and summaries of their research & career goals and relevant work experience.

The application process for the fellowship is competitive as only a limited amount of positions can be funded annually. Additionally, the number of positions offered each year varies. Funding raising efforts are made each year to support as many promising scientists as possible. Visit the "Past de Kiewiet Summer Research Fellows" to find out who has participated in the fellowship. The UPBM Advising Committee reviews and ranks all applicants. The UPBM office will notify candidates with the committee's decisions late April.



#### de Kiewiet Fellows 2018

Left to Right: Stephanie Busch '19, BBC; Iyad Sayed Issa '19, BBC, Hayley Chang 19, BCD; Abhishek Dede ;19, BCB/BCS; Sarah Sandkuhler '19, BNS; and Krista Pipho '18, BBC (Not pictured Joshua Brown)

#### How to Apply:

Part A: Intent to Apply - Due March 1st - Fill out the form and click "Submit. An email confirmation will automatically be sent out upon submission containing an "{Edit Submission Link}." This link that will allow applicants to get back into their record to upload the rest of the application materials they will need to prepare by first Monday back after Spring Break.

Part B: Proposal/Summaries Upload - Due Monday, March 18th - Applicants will need to prepare three documents. Including including a six-page 1.) "Formal Scientific Research Proposal," and two one-page summaries that outline applicant 2.) "Relevant Professional Experience," and 3.) "Research and Career Goals." Papers should be double-spaced and in .pdf file format.

Candidates will also need to ask their research mentor and another faculty member to write a letter of support. The faculty may e-mail the letters directly to BioDeptUgOffice@ur.rochester.edu by the 3/18 deadline.

For more information on how to find a mentor and proposal guidelines visit the de Kiewiet website.

## **Opportunities**

African Campus Experiential Learning

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

Albert Einstein College of Medicine *Deadline 2/1/19* Summer Undergraduate Research Program

Amgen Scholars Scholars Program

Caltech WAVE Fellows Amgen Scholars *Deadline 2/15/19* 

Case Western Reserve University *Deadline 2/1/19* Summer Programs

Cincinnati Children's Hospital *Deadline 2/1/19* Summer Undergraduate Research Fellowship (SURF)

City Internships Program Overview

Cleveland Clinic Center for Reproductive Medicine Summer Internship Program *Deadline 3/15/19* 

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

Columbia University/Barnard College Deadline 2/1/19
Amgen Scholars Summer Research Program

Cornell University *Deadline 2/1/19*Boyce Thompson Institute for Plant Research Internships
Cornell AgriTech *Deadline 2/3/19* 

Coastal Marine Education and Research Academy Summer Field Research

Council on Undergraduate Research National Conference on Undergraduate Research (NCUR)

Burke Neurological Institute
Summer Research Deadline 3/9/19

Boyce Thompson Institute
Summer Internship Deadline 2/1/19

Davis Projects for Peace Kathryn W. Davis Projects For Peace

Deutscher Akademischer Austausch Dienst (DAAD) Paid Research Internships in Germany

Duke University Teacher Fellowship Program Science and Leadership Award *Deadline 1/31/19* 

Donald Danforth Plant Science Center
NSF REU Summer Internship Program Deadline 2/1/19

EPA Internships
Medical Research and Health Science Internships
Available in Europe! Summer Deadline 2/15/19

Fred Hutch Cancer Research Center Summer Undergrad Research Program Internships in Scientific Research or Medicine

Fulbright Scholarship US Student Program

Gerstner Sloan-Kettering Deadline 2/1/19
Summer Undergraduate Research Program

GEHI

Ghana Health and Education Initiative

Goldwater (Barry)
Scholarship & Excellent in Education Program

Harvard School of Public Health *Deadline 2/5/19*Summer Program in Biological Sciences Public Health

Harvard University *Deadline 2/1/19*Summer Research Program

Homeland Security DHS Education Programs HS-STEM Summer Internship Program

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

Institute of Business Intelligence Innovation New Houston International Conferences

## Opportunities

International Association for Identification
Annual International Forensic Educational Conference

Journal of Young Investigators Author Guidelines Requirements

Louisiana University Marine Consortium
Summer Field Course Information Deadline 3/25/19

Maderas Rainforest Conservancy Attend a Course in the Jungle

MATCH Education Teacher Residency

Mayo Clinic *Deadline 2/1/19*Summer Undergraduate Research Fellowship

MedLife Volunteers

Miami University
Research Experience in Ecology & Environmental Science

Michigan State University
REU: ACRES Deadline 2/4/19

Michigan State Veterinary
Enrichment Summer Program Deadline 1/31/19

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

National Oceanic and Atmospheric Administration Hollings Scholarship *Deadline 1/31/19* 

Nobel Research Institute Scholars in Agriculture *Deadline 2/1/19* Scholars in Plant Science *Deadline 2/6/19* 

NYC Teaching Fellows *New* Fellowships

One Heart Source Volunteer Opportunities in Africa

Penn State New, Deadline 3/17/19 Huck Undergraduate Visiting Research Scholar PIRG - Job Openings for Graduating Seniors Jobs

Project Horseshoe Farm New Gap Year Fellowship

Roswell Park Cancer Institute Summer Research Programs

Southern Teaching Agency Website

SUNY Oswego Global Laboratory Summer Science Research Abroad

Teach for America Opportunities

Texas Tech University Health Sciences Center Summer Accelerated Biomedical Research Internships Deadline 3/15/19

The UNCF Merck Science Initiative Science Scholarships and Fellowships

University of Iowa Deadline 1/22/19
Summer Undergraduate MSTP Research Program

University of Michigan
Summer at Michigan for Undergraduate Research Training

University of Missouri *Deadline 2/15/19* Summer Research Programs

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 Deadline 3/1/19 deKiewiet Summer Fellowship

University of Rochester, Visual Science Summer Fellowship Program Deadline 2/4/19

# Opportunities

University of Texas South Western *Deadline 2/9/18* Summer Undergraduate Research Fellowship SURF

University of Utah Summer Program for Undergraduate Research SPUR

University of Virginia / Mountain Lake Biological Station Summer Research Experiences of Undergraduates Deadline 2/20/19

Upstate Medical University *Deadline 2/4/19* Summer Research Fellowship Program

University of Lausanne Summer Undergraduate Research Program

University of Missouri *Deadline 2/15/19*Alcohol Research Training Summer School/Internship

University of Pittsburgh New Summer Research Fellowship Deadline 3/1/19

Virginia Commonwealth University
Post baccalaureate Research Education Program (VCU PREP) *Deadline 3/15/19* 

The Woodrow Willson National Fellowship Foundation Teaching Fellowships *Deadline 1/31/19* 

World Teach Programs

Yale University School of Medicine Research Fellowships, Yale Child Study Center

### **Graduate Studies**

Albert Einstein College of Medicine Biomedical Sciences

Arizona State University
Science and Technology Policy

Berkley
Nutritional Sciences & Toxicology

Cedars-Sinai Medical Center PhD in Biomedical and Transitional Sciences

Cornell University
Ecology & Evolutionary Biology

Duke University Neurobiology

George Washington University Environmental Resource Policy Program

Harvard Medical School Master of Medical Science in Immunology

Harvard-School of Public Health PhD Program in Biological Sciences in Public Health

Icahn School of Medicine at Mount Sinai

Graduate School of Biomedical Sciences

Indiana University Biochemistry Graduate Program

Louisiana State University Biological Sciences Pharmacology & Experimental Therapeutics

Michigan State University College of Veterinary Medicine

Penn State College of Medicine PhD Programs | MS Programs

Salisbury University Applied Biology

ScribeAmerica Medical Scribes Seton Hill University
MS Biology | MS Microbiology
PhD Molecular Biology

St. Jude Graduate School Biomedical Sciences

Stony Book University Neuroscience PhD Program Neuroscience Master's Program

Texas Tech University Biomedical Sciences Programs

University at Buffalo PhD Biomedical Science

University of California, Los Angeles Ecology & Evolutionary Biology

University of Colorado Structural Biology & Biochemistry

University of Iowa College of Medicine Programs

University of Maryland Biophysics Program

University of Massachusetts Dartmouth Marine Science and Technology

University of Michigan Medical School Programs

University of Pennsylvania Graduate Program in Biology

University of Pittsburg Biological Sciences

University of Rochester Graduate Program TEAM-BMTD

University of South Florida Graduate Programs

University of Texas South Western Biomedical Sciences Programs

University of Utah Bioscience Programs University of Virginia Graduate Program

Upstate Medical University Graduate Studies | MD/PhD

Van Andel Institute
PhD Cell and Molecular Genetics

Vanderbilt University Neuroscience Graduate Program

Virginia Tech Molecular and Cellular Biology PhD Program

Watson School of Biological Sciences Ph.D. Program

Wake Forest University Biology Programs

## 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)

Kapalan 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

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