Welcome Back UPBM!

We’re so glad that we could welcome you back to Rochester, even if the semester is going to play out a little differently than normal. We’d love to know how you are all doing and how you plan to make this school year your best one yet!

If there is anything you want featured in future newsletters, or on our social media pages, please email marcella.sherlock@rochester.edu and we can make it happen!
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The UPBM has entered the Twitterverse! Make sure to go and give us a follow! We’ll be posting content soon!

@UR_UPBM

Make sure to follow us on Facebook to keep up to date with the latest UPBM events, opportunities, and important deadlines!

University of Rochester Undergraduate Program in Biology and Medicine UPBM

Head on over to Instagram to check out our page! We can’t wait to have more ways to connect with you all!

@ur_upbm

Learned something interesting recently? Travelled somewhere new and want to share your experiences? Let us know and we can feature your story in upcoming e-newsletters.

You can email submissions to Marcie Sherlock in the UPBM office.
### Meet the Biology Peer Advisors

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Major</th>
<th>Minor</th>
<th>Research Experience</th>
<th>Activities</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michaela Burrell '21</td>
<td>Ecology and Evolutionary Biology</td>
<td>Computational Biology</td>
<td>Fry lab through the McNair Scholars and de Kiewiet Fellowship, Chen lab studying phenotypic evolution in the Florida Scrub-Jay</td>
<td>TA for BIOL 104K, 111, and 117P, Captain of the Women’s Track and Field team</td>
<td><a href="mailto:mburrel5@u.rochester.edu">mburrel5@u.rochester.edu</a></td>
</tr>
<tr>
<td>Erica Culbert '21</td>
<td>Ecology and Evolutionary Biology</td>
<td></td>
<td>Brisson Lab, Smithsonian NMNH Department of Entomology</td>
<td>Pep Band, Teaching Assistant for BIO 260 (Animal Behavior)</td>
<td><a href="mailto:eculbert@u.rochester.edu">eculbert@u.rochester.edu</a></td>
</tr>
<tr>
<td>Srilatha Edara '21</td>
<td>Biology</td>
<td>Business and Psychology</td>
<td>Research assistant in Dr. Whasil Lee's lab on research related to ACL injury and its progression; Work as an Emergency Department Research Associate (EDRA) at Strong Memorial Hospital’s Emergency Department</td>
<td>Teaching Assistant for CHEM 203 and 204, Resident Advisor, FOS Volunteer, tutors students through RSA, Students Helping Honduras (SHH)</td>
<td><a href="mailto:sedara2@u.rochester.edu">sedara2@u.rochester.edu</a></td>
</tr>
<tr>
<td>Syed Arsalan Ghani '21</td>
<td>Computational Biology and Psychology</td>
<td></td>
<td>Through researching with Dr. Laura Elenbaas (Developmental Psychology) and Dr. Nancy Chen (Computational Biology), I have learnt how to apply research and statistical methods to big data in elucidating contemporary social and biological problems. Moreover, my coursework with Dr. Joseph Ciminelli and Dr. Emil Homerin has reaffirmed my resolve to shine a light on societal inequalities.</td>
<td>Board of Academic Honesty, Associate Justice on the All-Campus Judicial Council in the Student Association. In my free time, I enjoy drinking espresso and reading about religion.</td>
<td><a href="mailto:sghani@u.rochester.edu">sghani@u.rochester.edu</a></td>
</tr>
</tbody>
</table>
Meet the Biology Peer Advisors

Valeria Guerra ‘21
Major: Biochemistry
Take Five (2020-2021): Italian Language and Culture
Research Experience: Ghaemmaghami Lab (Summer 2018- Present) DeKiewiet Fellow (2019)
Overall Research focused on the effects of oxidation on cells and the role of methionine when oxidation occurs. Lab website: http://www.ghaemmaghamilab.org/index.php
Study Abroad Experience: IES Milan Fall 2019. Assistant at Immigration Office, Comune di Milano (Service Learning)
Activities: First-Year RA, Hospice Care, Lifetime Care, Volunteer (Spanish Speaking, Workshop Leader and CETL Tutor: BIOL 110 and 111, Kearns Scholar
Contact Information: pguerra@u.rochester.edu

Sylvia Lin ‘21
Major: Biology
Minor: Epidemiology
Take Five: "We Are What We Eat: A Comparative Study between Chinese and Italian Food Culture"
Research Experience: Research Assistant for the Department of Public Health and the Center for Community Health and Prevention
Study Abroad Experience: 2020 Spring in Arezzo, Italy
Activities: TA for BIO 110, 198, and 222, Peer Health Advocate
Contact Information: ylin69@u.rochester.edu

John Roy Lozada ‘21
Major: Molecular Genetics
Minor: Business
Research Experience: URMC, Li Lab (Summer 2020 to Present) - RNA regulation in testicular cancer
URMC, Kim Lab (Fall 2018 to Present) - Cancer immunology and immunotherapy
Dana-Farber Cancer Institute, Hahn Lab (Summers 2018 and 2019) - Cancer genomics and RNA regulation
Memorial Sloan Kettering Cancer Center, Reis-Filho Lab (Summers 2016 and 2017) - Genetics of rare cancers
Study Abroad Experience: Nanyang Technological University, Singapore, Fall 2019
Activities: Editor-in-Chief, Journal of Undergraduate Research
President, Filipino American Students’ Association
Contact Information: jlozada3@u.rochester.edu
The De Kiewiet Summer Research 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.

Summer projects must be rooted in the biological sciences and non-clinical. 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.

This past summer we were not able to host our scholars in our research labs, but we still wanted to honor their hard work and dedication that they put into their proposals. The 2020 summers fellows are:

**Catherine Barker BCB '21**
Title: “Generating a computational algorithm for designing probes against mammalian tRNAs”
Mentor: Dr. Dragony Fu
Biology

**Maya Lippard BMB '21**
Title: “Structural and Functional Analysis of a Class I Type I PreQ1 Riboswitches”
Mentor: Dr. Joseph Wedekind
Biochemistry and Biophysics

**Sammy Cheng BMB '21**
Title: “Life History of Wolbachia Lateral Gene Transfers”
Mentor: Dr. John Werren
Biology

**John Roy Lozada BMG '21**
Title: “Genome-wide CRISPR Screen to Identify Mediators of Myeloid Derived Suppressor Cell Differentiation”
Mentor: Dr. Minsoo Kim
Microbiology and Immunology

**Hannah Cook BEB '21**
Title: “Nasonia in Nature: Tracking the Local Extinction of a Missing Species”
Faculty Mentor: Dr. Jack Werren
Biology

**Maggie Straight BMB '21**
Title: “Novel antimicrobials with activity against mycobacterium”
Mentor: Dr. Martin Pavelka
Microbiology and Immunology

**Gilbert Giri BCB '21**
Title: “Imbalance in RNA Pol II Pausing and Its Impact on Tumor Cells”
Mentor: Dr. Paula Vertino
Biomedical Genetics

**Anika Tahsin BMG '21**
Title: “Protein Crystallography: Crystallization of Engineered Myoglobin Biocatalysts”
Mentor: Dr. Rudi Fasan
Chemistry

**Nivedita Iyer BBC '21**
Title: “Roles of TAN1 in tRNA biology in Schizosaccharomyces pombe”
Mentor: Dr. Eric Phizicky
Biochemistry and Biophysics

**Jinghong Tang BCD '21**
Title: “Function of Heat Shock Factor in Normal Development and Tumor Growth in Drosophila melanogaster”
Mentor: Dr. Michael Welte
Biology
Biology in the News: Anusha Naganathan Wins Grant Supporting Outreach to Incarcerated Students

Anusha Naganathan, Ph.D., who is a Research Associate in the Culver Lab and is teaching BIOL 190 this Fall, won an ASCB Public Engagement Grant this past summer to “help bring science education to students in a local prison.” The grant is titled “UR Science Stories: Bringing the Experience of Scientific Experimentation to Students at Groveland Correction Facility.” Her co-Principal Investigator is Eitan Freedenberg of the Rochester Education Justice Initiative (REJI).

The grant itself supports a one-year pilot project at the facility but the long-term goal is to continue their collaboration with REJI to expand to more of the local incarcerated population. This population of students happen to be “disproportionately from racial and ethnic minority communities that have historically lacked access to educational and economic opportunity.”

Anusha’s program will allow Department of Biology scientists, which includes undergraduates, to “develop and present a series of video- and model-based science stories in the form of a seminar course to students at Groveland Correctional Facility.” Anusha’s goals for the program are:
1. Provide a big picture view of how research happens
2. Create outreach opportunities for undergrads, graduate students, and postdocs to showcase their work by making short professional videos to introduce their research.

Anusha got introduced to the work that REJI does when designing an introductory biology course to teach at Groveland this semester. She knew that science courses could have a positive impact on these students after they are released and go through reintegration. The challenge. However, was teaching inquiry-based laboratory courses. When she wrote her proposal to bring live science into the classroom and have the students engage with real scientists, this is when she found REJI. They were able to offer her support and give her the necessary background information on their program in Groveland. This is also when she met Eitan.

Joshua Dubler, Faculty Director of REJI said that “Making science work in a correctional setting is a difficult challenge, and Anusha’s proposal makes the absolute most of the constraints. We are thrilled to expose our students to a range of original researchers. As well, in our efforts to embed the education of incarcerated and formerly incarcerated students into the cultural life of the institution, we are so pleased to be able to work with the Department of Biology on this effort, and we look forward to many future partnerships.”

During this academic year Anusha will start recruiting biology labs to participate in the program, and they will meet in the spring to develop their work. The work will be presented in a college-credited course at Groveland in Summer 2021. Very strict prison rules and COVID-19 guidelines will be challenges that the teams will need to overcome.

Congratulations Anusha, we are so proud of you!

To read the article in full, please visit https://www.sas.rochester.edu/bio/news-events/2020_06_29_a.naganathan_corrections.html
Biology in the News:
Dr. Vera Gorbunova and Dr. Andrei Seluanov think that bats offer the clues to treating COVID-19

Bats are considered patient zero for a whole host of deadly viruses that affect humans: Ebola, rabies, and now most notably, the SARS-CoV-2 strain of virus that causes coronavirus. Humans have adverse reactions to all these viruses, however bats have shown to be incredibly tolerant of any effects, as well as have longer life-spans than other similar-sized mammals.

According to Dr. Vera Gorbunova and Dr. Andrei Seluanov “bats’ longevity and capacity to tolerate viruses may stem from their ability to control inflammation, which is a hallmark of disease and aging.” In a review article, featuring themselves and other researchers, in the journal Cell Metabolism, they “outline the mechanisms underlying bats’ unique abilities and how these mechanisms may hold clues to developing new treatments for diseases in humans.”

The idea came about when Gorbunova and Seluanov were in Singapore in March, right before the COVID-19 travel bans began. When the virus began to spread, they were quarantined in the home of their friend and colleague Brian Kennedy, who is the director of the Centre for Healthy Aging at the National University of Singapore. He is also the co-author of the paper.

The conversation in quarantine turned to bats. SARS-CoV-2 is believed to have originated in bats before being transmitted to humans. Like stated above, the bats aren’t affected by the virus, and they have a long lifespan despite their size. Dr. Gorbunova said that “Being in quarantine gave us time to discuss this, and we realized there may be a very strong connection between bats’ resistance to infectious diseases and their longevity. We also realized that bats can provide clues to human therapies used to fight diseases.”

The researchers say that there are several factors that may contribute to bats having evolved to be resistant to viruses and live long lives. Bats are the only mammals with the ability to fly, which “requires that they adapt to rapid increases in body temperature, sudden surges in metabolism, and molecular damage. These adaptations may also assist in disease resistance.”

Their environment may also be a factor, as they all live in close proximity to each other and are constantly bringing new pathogens back to the cave or nest.

“The researchers anticipate that studying bats’ immune systems will provide new targets for human therapies to fight diseases and aging. For example, bats have mutated or completely eliminated several genes involved in inflammation; scientists can develop drugs to inhibit these genes in humans. Gorbunova and Seluanov hope to start a new research program at Rochester to work toward that goal.”

To read the full article, please visit https://www.rochester.edu/newscenter/bats-offer-clues-to-treating-covid-19-443332/
Biology in the News: "Two University of Rochester Department of Biology Faculty Members receive NSF Funding Awards to Study Biological Processes in COVID-19"

Congratulations to Dr. Dragony Fu and Dr. Jack Werren on receiving funding awards from the National Science Foundation (NSF) to study the biological processes involved in COVID-19. The thought is that "by better understanding the specific biological mechanisms and proteins involved in COVID-19 infection, scientists will better be able to develop effective treatments and vaccines to fight the disease."

For Dr. Fu, he says that “the central goal of our lab is to understand the functions of proteins that modify RNA. TRMT1 happens to be one of the main RNA modification proteins we study, so it was quite serendipitous that it is connected to the COVID-19 virus because we have already established tests to measure TRMT1 function in human cells.”

Dr. Fu is partnering with researchers at the French National Centre for Scientific Research to “study why SARS-CoV2 interacts with TRMT1 and how the interaction affects both the virus and human cells.” His hypothesis is that “the coronavirus protease cuts TRMT1, preventing the protein from modifying RNA as it normally does, and, in turn, compromising RNA’s function in protein synthesis.”

Dr. Elaine Sia, Professor and Co-Director of the UPBM, had this to say about Dr. Fu and his work: “Dr. Fu is well positioned to carry out these studies using the rigorous biochemical and molecular approaches that have characterized his previous research endeavors. In addition, he has the admirable ability to establish effective collaborations across the world, which has allowed him to tackle some really difficult problems in the past.”

To read more about Dr. Fu’s project, please visit https://www.nsf.gov/awardsearch/showAward?AWD_ID=2033354&HistoricalAwards=false.

Dr. Werren is using the evolutionary rate correlation (ERC) approach to identify proteins that may coevolve and interact with the ACE2 receptor on human cells.

About Dr. Werren, Dr. Sia had this to say: “Dr. Werren is an evolutionary geneticist who has applied his considerable skills to a variety of important questions over the course of his career, many of them involving the interaction of genomes in symbiotic or parasitic relationships. An examination of the interaction between the SARS-CoV2 virus and the human host cell was, therefore, a natural fit for his expertise.”

To read more about Dr. Werren’s project, please visit https://www.nsf.gov/awardsearch/showAward?AWD_ID=2034507&HistoricalAwards=false.

To read the full article, please visit https://www.rochester.edu/newscenter/rochester-biologists-explore-coronavirus-and-proteins-and-covid-19-444562/.

Dr. Werren is using his grant to “identify potential interactions between ACE2 and other human proteins that are involved in human health problems associated with COVID-19 infection.”
I was fortunate to work in Dr. Vera Gorbunova’s lab for over 3 years as an undergraduate at the University of Rochester researching the epigenetics of aging, where I was constantly challenged to analyze and interpret new information, as well as familiar information in unfamiliar situations. I reflect back on my time as biochemistry major, grateful for the intellectual and critical thinking skills that the biology department helped me foster. Upon graduation, I embarked on a Fulbright grant to the University of Hong Kong, where I continued to investigate the epigenetics of aging. The opportunity to see how biomedical research operates in different parts of the world has allowed me to tackle biological problems with a more multifaceted approach. After Fulbright, I followed my passion for aging research to the University of Pennsylvania in the Biochemistry and Molecular Biophysics program, where I am currently in my second year co-advised by Drs. Shelley Berger and Ben Garcia.

I was inspired by the non-model organism research in the Gorbunova lab with naked mole rats and sought to feed that interest with a new unique organism. Now I investigate aging in ants, which have many unique properties. Each ant in a colony is nearly genetically identical but exhibits exceptional morphological and behavioral diversity! In some species, workers live only 6 months, while the queen lives longer than 30 years. Given their identical genomes, the epigenome drives these incredible lifespan differences. My thesis revolves around manipulating transcription factors and histone modifications to control ant behavior. I currently focus on leafcutter ants (Atta cephalotes), which have 10 castes. Again, all these castes have nearly identical genomes, but exhibit vastly different behaviors and morphologies. My goal is to understand their epigenome well enough to change their behaviors. For example, can I make a soldier caste behave like a nurse? I use a combination of genomic and proteomic approaches to interrogate the epigenome and also work on a novel behavioral assay to objectively classify the leafcutter ant castes. I am excited that three more UR students, Maxx Fioriti, Alan Boka, and Zhenfeng Lui, will be joining the Penn community this fall!
Helpful Hints: Five Tips for Students Navigating a Rocky Job Market

The global pandemic has caused a lot of us to adjust our lives drastically. It’s also caused disruptions in the job market. The Gwen M. Green Center for Career Education and Connections at the University of Rochester has a list of 5 tips for students as they navigate the next several months.

1. Relationships matter more than ever
The relationships that students form here at Rochester have always been important, but now it’s even more important. With certain industry sectors and professions having a reduction of open positions, it’s important to have a strong network. Good connections with people can also help you navigate the emotional, psychological and intellectual toll that post-grad life may deal. Most relationship and network building will occur virtually this year, so it’s important to practice how to build connections in a virtual space.

2. Pivot and adapt to new opportunities
The pandemic may have thrown some doubt into your plans for after graduation. Maybe the industry sector you wanted to go in as been severely affected by the pandemic. The Gwen M. Green Center can help you lay out what experiences you have and apply them to a wider, more diverse field. Being able to adapt and change plans is a skill that future jobs will be looking for.

3. Patience + Persistence
Having patience and persistence will be key this year. Some organizations won’t know what their needs are or will need to consistently evolve to meet current guidelines. Creating alternate plans can help mitigate some of this stress. Being aware of current news in whatever industry you want to join, following up with people, asking questions about timelines, and connecting with people will be extremely important, since human resources reps may not know specifically when positions will open up.

4. Keep learning and adding to your portfolio of skills and competencies
Because there will most likely be greater competition in certain industries, it’s important to be aware of what competencies and skills are the most in-demand. If you have them, come up with ideas to best showcase them and provide examples. Expect that organizations will want to know how you can operate in a remote and virtual environment. The Greene Center has resources that can allow you to add to your body of knowledge, be in through things such as Coursera, Udemy, Kaggle, or Tableau. Think about “pitching” a virtual or remote position to companies, especially ones who don’t think virtual work would be possible in their industry. You can create a great opportunity for yourself if you can show them how that type of work may be a value or asset to their organization.

5. Empathy: For yourself and others
It’s important to be kind to others. The pandemic has affected people in numerous ways, and we don’t know what others are going through behind closed doors. It sends a message that you respect and care for others as you go along navigating your professional life. It’s also important to be kind to yourself. Make sure to find time to relax and unwind, the job hunt can be extremely stressful and taxing.

To read the full article, please visit https://www.rochester.edu/newscenter/five-tips-for-students-navigating-a-rocky-job-market/
Have a research topic in mind and want to get academic credit for it? Take an independent research course this year! The course is available for either 2, 3, or 4 credits.

Steps:
1. Find a research mentor and develop a course description
2. Fill out the online UPBM Pre-Registration Form
3. Submit the CCAS Independent Study Form

In-person independent studies are allowed to go on until Wednesday, November 25th, 2020, when all courses must move to online instruction. Instructors of courses that need to start after the deadline will need to provide a brief explanation of contact hours to justify the number of credit hours the course is taken. Instructors can send letters of justification to the UPBM Directors’ care of Marianne Arcoraci at email: marianne.arcoraci@rochester.edu.

**Important deadlines for Fall 2020:**
- **4 Credit 395 Courses:**
  - Must start course by 8/31
  - Submit Online UPBM Pre-Registration Form by 8/28
  - Submit CCAS Independent Study Form
- **3 Credit 395 Course:**
  - Must start course by 9/14
  - Submit Online UPBM Pre-Registration Form by 9/11
  - Submit CCAS Independent Study Form
- **2 Credit 395 Course:**
  - Must start course by 10/12
  - Submit UPBM Pre-Registration Form by 10/09
  - Submit CCAS Independent Study Form

**Important deadlines for Spring 2021:**
- Dates for Spring 2021 TBD

For more detailed information visit our [Independent Research](#) webpage!

If you are a senior UPBM student with a 2.7 GPA and have research you would like to present, you can apply for the Honors in Research program.

To qualify, you must have “a novel body of work that includes publication-quality data from which to generate a senior thesis.” If chose, candidates would need to defend their thesis before a faculty examination committee.

Upon completion, the student would have “Honors in Research” noted on their transcript and be given a certificate at their diploma ceremony.

Students must submit an [Application for Candidacy](#) by March 1st, 2021. If you are a T-5 student, you may apply for this during your 5th year.

The thesis paper must be at least 20 pages, written as a scientific paper, and be properly referenced. The committee members and the UPBM Administrator must be provided copies of the paper prior to the thesis defense. The results from the committee must be submitted to the UPBM office in writing by the end of the first week of May.

For more information, visit the [Honors in Research](#) page on our website!
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<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 14</td>
<td>Dr. Michael Lampson</td>
<td>University of Pennsylvania, Department of Biology</td>
<td>“Violation of Mendel’s First Law: Centromere drive and suppression in meiosis”</td>
</tr>
<tr>
<td>Sept 21</td>
<td>Dr. Andrew Gordus</td>
<td>John Hopkins University, Department of Biology</td>
<td>“Untangling the web of behaviors employed in spider orb weaving”</td>
</tr>
<tr>
<td>Sept 28</td>
<td>Dr. Michelle Starz-Gaiano</td>
<td>UMBC, Department of Biological Sciences</td>
<td>“Genetic regulation and the influence of tissue structure on cytokine signaling and collective cell migration in <em>Drosophila</em>”</td>
</tr>
<tr>
<td>Oct 5</td>
<td>Dr. Hyun Youk</td>
<td>Delft University of Technology, Department of Biology</td>
<td>“At the cusp of life and death: A case study in baker’s yeast”</td>
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<tr>
<td>Oct 12</td>
<td><strong>Fall Break – No Seminar Scheduled</strong></td>
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<tr>
<td>Oct 19</td>
<td>Dr. Sohini Ramachandran</td>
<td>Brown University, Department of Ecology and Evolutionary Biology</td>
<td>“Leveraging linkage disequilibrium to characterize human complex trait architecture”</td>
</tr>
<tr>
<td>Oct 26</td>
<td>Dr. Shelby Blythe</td>
<td>Northwestern University, Department of Molecular Biosciences</td>
<td>“Building patterning-dependent chromatin states during development”</td>
</tr>
<tr>
<td>Nov 2</td>
<td>Dr. Holly Lovegrove</td>
<td>University of Manchester, Department of Developmental Biology &amp; Medicine</td>
<td>“TBA”</td>
</tr>
<tr>
<td>Nov 9</td>
<td>Dr. Karine Gibbs</td>
<td>University of California, Berkeley, Department of Plant &amp; Microbial Biology</td>
<td>“How bacteria can use a local sense of identity to shape community assembly and movement”</td>
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<td>Nov 16</td>
<td>TBA</td>
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<td>Nov 23</td>
<td>TBA</td>
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<tr>
<td>Nov 30</td>
<td>Dr. Sharlene Santana</td>
<td>University of Washington, Department of Biology</td>
<td>“TBA”</td>
</tr>
<tr>
<td>Dec 7</td>
<td>Dr. Buz Barstow</td>
<td>Cornell University, Department of Biological and Environmental Engineering</td>
<td>“What is the efficiency of microbial electrosynthesis?”</td>
</tr>
</tbody>
</table>

Seminars will be held on Mondays at 12:00 p.m. via Zoom. This schedule can be found on the Biology Department Seminar Calendar at [http://www.rochester.edu/college/SCI/seminars.php](http://www.rochester.edu/college/SCI/seminars.php) or on the U of R Medical Center Scientific Events Calendar at [http://www.urmc.rochester.edu/calendar/](http://www.urmc.rochester.edu/calendar/).
“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.”

Membership allows students to have a better connection with professors through research panels, luncheons, and even volleyball. There are weekly study groups and membership would allow for research shadowing program eligibility.

Their executive board is as follows:
President - Rui Ting Liang
President - Shuang Qing
Secretary - Marjorie Rowe
Publicity Chair - Kylah Rendell
Business Manager - Alexys Gayne
Research Chair - Rohitkumar Marol
Advisor - Madeleine Aborn

You can follow them on social media by visiting their Facebook Page or Instagram. Head to their website to join or find out more information!

Society of Undergraduate Biology Students

Upcoming Events

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Date &amp; Time</th>
<th>Location</th>
<th>Registration Required</th>
<th>Event Link</th>
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</thead>
<tbody>
<tr>
<td>Red Cross Blood Drive: Corporate Woods</td>
<td>September 11th: 9:00 a.m. - 2:00 p.m.</td>
<td>Online</td>
<td>Pre-scheduled appointment suggested</td>
<td>Event link</td>
</tr>
<tr>
<td>Biology E2G2 Seminar - Emery Longan</td>
<td>September 11th: 3:00 - 4:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event Link</td>
</tr>
<tr>
<td>Biology Donut Talk - Michael Lampson</td>
<td>September 14th: 12:00 - 1:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event Link</td>
</tr>
<tr>
<td>Presidents’ Roundtable</td>
<td>September 15th: 6:00 - 7:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event link</td>
</tr>
<tr>
<td>URBEST Career Story: Brett Mulvey</td>
<td>September 17th: 11:00 a.m. - 12:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event Link</td>
</tr>
<tr>
<td>Kears Scholar 101: First Gen for the Win!</td>
<td>September 17th: 1:00 p.m. - 2:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom</td>
<td>Event Link</td>
</tr>
<tr>
<td>Graduate Women in Science Meeting</td>
<td>September 17th: 3:00 - 4:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event Link</td>
</tr>
<tr>
<td>Drop-In e5 Info Session</td>
<td>September 22nd: 2:00 - 3:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom</td>
<td>Event link</td>
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<td>Fall Career Expo 2020</td>
<td>September 24th: 3:00 - 6:00 p.m.</td>
<td>Online via Zoom</td>
<td>Online via Zoom, registration required</td>
<td>Event Link</td>
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<td>EPA Internships in Europe Info Meeting</td>
<td>September 25th: 3:00 - 4:00 p.m.</td>
<td>Online via Zoom</td>
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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 Scholars Program

Animal Care Sanctuary
Pre-Veterinary and Animal Science Internships

Boise State University
REU in Raptor Research

Boyce Thompson Institute
Summer Internship

Caltech
Wave Fellows

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 Mentorship Program

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

Cornell University
Boyce Thompson Institute for Plant Research Internships
Agritech

Coastal Marine Education and Research Academy
Summer Field Research

Davis Projects for Peace
Kathryn W. Davis Projects For Peace

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

Donald Danforth Plant Science Center
Danforth Center Summer Internship Program

Duke University
Science & Society Leadership Award

EPA Internships
Medical Research and Health Science Internships
Available in Europe!

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

Fulbright Scholarship
US Student Program

Gerstner Sloan-Kettering
Summer Undergraduate Research Program

GEHI
Ghana Health and Education Initiative

Goldwater (Barry) Scholarship
Scholarship & Excellence in Education Program

Harvard Forest
Summer Research Program in Ecology

Harvard School of Public Health
Summer Program in Biological Sciences Public Health

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

Journal of Young Investigators
Article Submission Requirements

Louisiana University Marine Consortium
Research Experience for Undergraduates

MATCH Education
Teacher Residency

Mayo Clinic
Summer Undergraduate Research Fellowship

MedLife
Student Opportunities

Michigan State Veterinary
Enrichment Summer Program

National Collegiate Research Conference (NCRC)
NCRC 2020 Applications
Opportunities

Nemours/Alfred I. duPont Hospital for Children and Nemours Office of Health Equity and Inclusion
Summer Undergrad Research Scholarship

Nobel Research Institute
Scholars in Agriculture
Scholars in Plant Science

One Heart Source
Volunteer Opportunities in Africa

PIRG - Job Openings for Graduating Seniors
Jobs

Roswell Park Cancer Institute
Summer Research Experience Program in Cancer Science

Southern Teaching Agency
Spring Job Fairs

Stowers Institute for Medical Research
Stowers Summer Scholars

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
MU-ARTSS Internship

University of Notre Dame Environmental Research Center
Research

University of Rochester
deKiewiet Summer Fellowship
Research Initiative Award for Undergraduates
Udall Undergraduate Scholarship
Undergraduate Research Exposition (URE)

University of Texas South Western
Amgen Scholars Program
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

Upstate Medical University
Summer Undergraduate Research Fellowship

West Virginia University Center for Neuroscience
Summer Undergraduate Internship SURI Program

The Woodrow Wilson National Fellowship Foundation
Teaching Fellowships

World Teach
Programs

Yale Autism Center of Excellence
Yale Fellowship in Developmental Neuroscience of Autism
Albert Einstein College of Medicine
Biomedical Sciences

Arizona State University
Science and Technology Policy

UC Berkley
Metabolic Biology
Molecular Toxicology

Cedars-Sinai Medical Center
Ph.D. in Biomedical and Transitional Sciences

Cornell University
Ecology & Evolutionary Biology

Duke University
Neurobiology | Program in Genetics & Genomics

George Washington University
Environmental Resource Policy Program

Harvard Medical School
Master of Medical Science in Immunology

Harvard School of Public Health
Ph.D. Program in Biological Sciences in Public Health

Icahn School of Medicine at Mount Sinai
Graduate School of Biomedical Sciences

Indiana University
Biochemistry Graduate Program

Michigan State University
College of Veterinary Medicine Graduate Programs

Penn State College of Medicine
Ph.D. Programs | MS Programs

Salisbury University
Master of Science in Applied Biology

Seton Hall University
MS Biology | MS Microbiology | Ph.D. Molecular Bioscience

St. Jude Graduate School
Biomedical Sciences

Stowers Institute for Medical Research
Stowers PhD Program

Stony Brook University
Neuroscience Masters and Ph.D. Program

Texas Tech University
School of Biomedical Sciences

University at Buffalo
Ph.D. Biomedical Science

University of California, Los Angeles
Ecology & Evolutionary Biology

University of Colorado
Structural Biology & Biochemistry Program

University of Iowa
College of Medicine Degree Programs

University of Maryland
Biophysics Program

University of Massachusetts Dartmouth
Marine Science and Technology

University of Michigan
Graduate School Hub *New
Medical School Program

University of Pennsylvania
Graduate Program in Biology

University of Pittsburg
Biological Sciences Programs

University of Rochester
Graduate Program TEAM-BMTD
Department of Biostatistics and Computational Biology

University of South Florida
Graduate Programs

University of Utah
Bioscience Programs

University of Virginia
School of Medicine

Upstate Medical University
Graduate Studies | M.D./Ph.D.

Van Andel Institute
Ph.D. in Molecular and Cellular Biology

Vanderbilt University
Neuroscience Graduate Program

Virginia Tech
Molecular and Cellular Biology Ph.D. Program

Watson School of Biological Sciences
Ph.D. Program

Wake Forest University
M.S. and Ph.D. in Biology

Woodrow Wilson Graduate School
Graduate School of Teaching and Learning
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<td>Have any interesting stories or events coming up you want featured in future newsletters? Please let us know! We would also love to hear your feedback so that we can improve upon future newsletters. You can email <a href="mailto:marcella.sherlock@rochester.edu">marcella.sherlock@rochester.edu</a> with comments, questions, or concerns.</td>
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