

UPBM E-NEWSLETTER

Undergraduate Program in Biology & Medicine



J. Adam Fenster / University of Rochester

Warm weather is almost here, which means so is graduation! The Biology Department Diploma Ceremony will be taking place Sunday, May 19th starting at 11:15am at the Larry and Cindy Bloch Alumni and Advancement Center. All are invited to come and celebrate this major accomplishment.

Find more information on the [Commencement 2019 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](#)
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Nick Balch's Donation May Become A Lifesaver

UR Athletics "Football Lineman's Donation May Become a Lifesaver", By Dennis O'Donnell, March 6, 2019

"A moment of inspiration by a University of Rochester football player may help a complete stranger battle a deadly disease.

Nicholas "Nick" Balch, a senior from Wilmette, IL (New Trier HS), took part in the Be The Match® program at the University last spring. Be The Match® is a nonprofit organization that brings together potential donors of bone marrow and cord blood to help patients diagnosed with leukemia, lymphoma, and other life-threatening diseases.

In late January, he went to the University of Rochester Medical Center to donate bone marrow. That donation was shipped immediately to a patient for whom Balch has been told he is a "perfect match".

Statistics from the organization say one in 400 donors will be a match. The odds improve to one in 200 donors when athletes register. Participants remain in the data base as future donors if a match is found.

"If you hit the right criteria, they ask a laboratory to do a blood draw to see if you are a perfect match," Balch said.

Balch helped to organize the one-day drive on campus last April. Donors filled out paperwork – Balch included – and had the inside of their cheek swabbed.

A week after the Rochester football season ended in November, Balch was clearing snow from the stands so that an NCAA soccer tournament could be held. His cell phone rang three different times. He listened to the messages. The Be The Match® people were calling. His sample hit a lot of the bio markers. Be The Match® wanted a detailed medical history and a blood draw to see if it is the right match.

During winter break, he had blood tests at his home near Chicago. He returned to campus in mid-January and did a physical. That clinched it. He underwent five days of shots to help his bones produce more bone marrow cells before the donation was made.

The on-campus program was organized by the football coaching staff, led by head coach Chad Martinovich. "We did this during all of my years at MIT," Martinovich said. "We never had a perfect match."

Community service has always been important to the football program. For years, Yellowjacket players and coaches have worked with Camp Good Days and Special Times, a camp in the eastern suburbs for children battling cancer.

This was a natural transition for Balch. He is a biology major. In the summer following his sophomore year, he did an internship at Johns Hopkins University on pancreatic cancer

research. His research work continued this past summer in Rochester when he worked on campus. He understands the terminology.

It was a busy, busy year. With a new football coaching staff in place last spring, Balch and his teammates adapted to the offensive philosophies of assistant coach Adam Griggs and Martinovich. "They wanted our experience and skills to help the younger guys to learn, to grow, and to improve," Balch said.

He played every position on the line – starting at center, but seeing time at guard and tackle, too. He was honored by both the University Athletic Association and the Liberty League with selection to their post-season all-star teams. In the season finale against Alfred, his work in the trenches was rewarded when the coaches put him in the backfield and he carried the ball three times for positive yardage. "It was a lot of fun," he said. This time, though, he was the one getting hit and not doing the hitting.

His donation went out immediately to a patient in need. It may take time to see if the patient can accept the bone marrow successfully. Maybe in the next few years, he will have an opportunity to meet his recipient.

"There are so many people who helped me to be here, that this is a way to help someone else in a similar way," he commented."



Photo from UR Athletics

Congratulations UPBM Majors!

Fulbright Scholarship Offers



Guess who's been offered a Fulbright to South Korea?

Congratulations to

Rachel Yang

(BMB '18/T5 '19)



Madeline Hoey

(BBC '19)

has been offered a

**Fulbright
to Denmark!**



Track Performer of the Year-Michaela Burrell

UR Athletics "UR Women Reap Liberty League Year End Accolades", By Scott Sabocheck 3/15/2019

"Burrell was nearly unstoppable all season long, as she broke three school records in sprint events this season (60m, 200m, 400m), and qualified for the NCAA Division III Indoor Championships in both the 60m and 200m. Earned All-American honors in both the 60m (3rd place) and 200m (6th place) at her first NCAA Indoor Championship meet. The junior was selected the Liberty League Track Performer of the Meet at the conference championships, winning three times in the 60m, 200m and 4x400m relay, posting meet records in all three events, also ending 9th in long jump with a personal best mark. Won the 200m (meet record) and ended 5th on DMR at All-Atlantic Regional Championships. Ended the regular season ranked 5th in Division III in the 200m, 6th in the 60m and 23rd in the 400m. Was picked as Liberty League Track Performer of the Week seven times out of 12 weeks."

12:30 p.m. Symposium Sessions
 Engineering & Math: Gavett 206
 Humanities: Welles-Brown Room
 Natural Sciences: Hutchison 140
 Social Sciences: Meliora 203

2:00 p.m. Poster Session
 Hawkins-Carlson Room RRL

3:10 p.m. Award Ceremony
 Welles-Brown Room RRL

UNDERGRADUATE RESEARCH EXPOSITION | APRIL 19, 2019

Important Fall Registration Information

Starting Fall 2019, some biology courses will be offered in different semesters than they have been scheduled in the past.

BIO 206 Eukaryotic Genomes will be offered in the **FALL**

BIO 219L Genomics of Quantitative Traits with Lab will be offered in the **SPRING**

BIO 263 Ecology will be offered in the **SPRING 2021**

Please plan accordingly!

New Course Fall 2019

BIO 259L/459L Applied Population Biology

Monday/Wednesday 10:25-11:40am, Lab: Friday 12:30-1:45pm

This course will explore how concepts of population ecology and evolutionary biology can be used to draw inferences about ecological and evolutionary processes and inform the conservation and management of natural populations, with an emphasis on practical applications. Students will get hands-on training on common research methods in population biology. The required lab component will give students an opportunity to analyze real-world data. Major topics will include how to model the dynamics and persistence of populations using simulation models and statistics, and how to predict disease transmission dynamics using social network analysis.

Prereqs: BIO 214/BIO 218P/STT 276 AND BIO 111/BIO 113, BIO 205/BIO 263 are recommended but not required

SENIORS: Diploma Ceremony Form, Senior Photos

The 2019 Biology Diploma Ceremony is being held on **Sunday, May 19th, 2019 at 11:15 a.m. in the Larry and Cindy Bloch Advancement Center**. Find more information on the [Commencement 2019 webpage](#).

This Biology Department Ceremony includes the following majors:
BA in Biology (BA BIO), BS in Computational Biology (BS BCB), BS in Cell and Developmental Biology (BS BCD), BS in Ecology and Evolutionary Biology (BS BEB), and BS in Molecular Genetics (BS BMG).

Please remember to fill out the online [Diploma Ceremony Form](#) **whether or not you are planning on attending the diploma ceremony**.

Remember to submit photos for the Senior Slideshow! Email pictures to Chelsea Kuhn, or upload them when filling out the [Diploma Ceremony Form](#). Help make the Senior Slideshow a huge success and email your pictures and song suggestions to [Chelsea](#) before **May 1st, 2019**.





The Bioethics Bootcamps are a series of workshops geared towards preparing pre-health students to tackle the ethical dilemmas facing healthcare today. In the comfortable environment of the Humanities Center, discuss challenging topics with your peers and industry experts. Whether preparing for medical school interviews or simply interested in looking at healthcare through a humanistic lens, join us for one or all of the upcoming sessions. Light refreshments will be served. **Space is limited so make sure to register!**

The Sea Inside, April 17th, 7pm

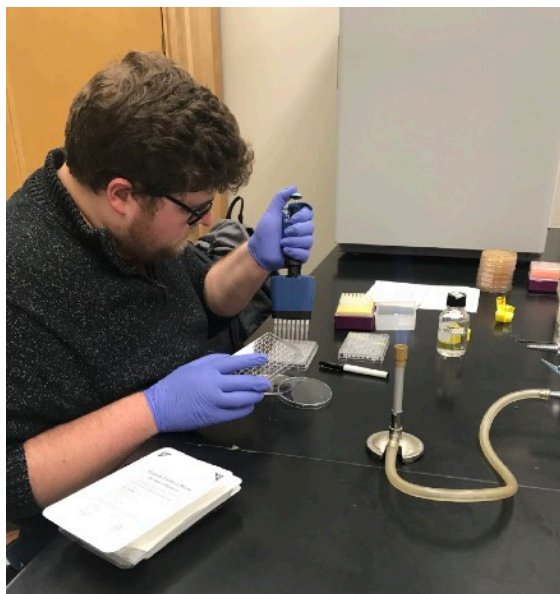
Hosted By Bernie Sussman, MD

“Ramón Sampedro (Javier Bardem) is a Spanish ship mechanic and part-time poet who is left a quadriplegic after a diving accident. This film tells the true story of Sampedro's 30-year battle for the legal right to end his own life. He develops close relationships with his long-term lawyer Julia (Belén Rueda) and his friend Rosa (Lola Dueñas), who tries to convince him that his life is worth living. Despite his situation, Ramon manages to inspire those around him to live life to the fullest.”

Greene Center Events

<p>Bioethics at the Movies: Okja Thursday, March 28th, 6:30pm More Information</p>	<p>McKinsey's Freshman Diversity Leadership Academy Friday, April 5th-Saturday, April 6th More Information</p>
<p>Society of Undergraduate Public Health Students "From Majors to Masters Panel" Wednesday, April 3rd, 6-7pm More Information</p>	<p>Meet and Greet with UR alumna Amy Hein '05, Ripple Effect Thursday, April 9th, 2-3:30pm More Information</p>
<p>Three Minute Thesis Competition Thursday, April 4th, 4-5pm More Information</p>	<p>2019 Grad Fair Wednesday, April 17th 10am-4:30pm More Information</p>
<p>Society of Undergraduate Public Health Studies "Opioid Epidemic Event" Thursday, April 4th, 5-6pm More Information</p>	<p>Interviewing: What to Expect and How to Prepare for the Interview Wednesday, April 24th, 10-11:30am More Information</p>
<p>Hall Talk: Turn your High School Resume into a College One! Thursday, April 4th, 7-8pm More Information</p>	<p>Professional Networking Workshop with Speaking Fellows Wednesday, April 24th, 7-8pm More Information</p>
<p>Check out all the events on their website</p>	

How to Find a Research Mentor



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

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! *Application set to close on April 8th.*

[Discover Grant Information](#)

Research and Innovation Grant

Research and Innovation Grants (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!](#)

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](#).

Opportunities

[African Campus
Experiential Learning](#)

[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
Scholars Program](#)

[Caltech
WAVE Fellows
Amgen Scholars](#)

[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
Cornell AgriTech](#)

[Coastal Marine Education and Research Academy
Summer Field Research](#)

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

[Burke Neurological Institute
Summer Research](#)

[Boyce Thompson Institute
Summer Internship](#)

[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](#)

[Donald Danforth Plant Science Center
NSF REU Summer Internship Program](#)

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

[Fred Hutch Cancer Research Center
Summer Undergrad Research Program
Internships in Scientific Research or Medicine](#)

[Fulbright Scholarship
US Student Program](#)

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

[GEHI
Ghana Health and Education Initiative
Summer Serve and Learn Volunteer Programs](#)

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

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

[Harvard University
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
Houston International Conferences](#)

Opportunities

International Association for Identification
Annual International Forensic Educational Conference

Journal of Young Investigators
Author Guidelines Requirements

King Abdulla University of Science and Technology
Red Sea Summer Program

Louisiana University Marine Consortium
Summer Field Course Information

Maderas Rainforest Conservancy
Attend a Course in the Jungle

MATCH Education
Teacher Residency

Mayo Clinic
Summer Undergraduate Research Fellowship

MedLife
Volunteers

Miami University
Research Experience in Ecology & Environmental Science

Michigan State University
REU: ACRES

Michigan State Veterinary
Enrichment Summer Program

National Collegiate Research Conference (NCRC)
NCRC 2018 Applications

National Institute of Health
Undergraduate Scholarship Program *Deadline*

National Oceanic and Atmospheric Administration
Hollings Scholarship

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

NYC Teaching Fellows
Fellowships

One Heart Source
Volunteer Opportunities in Africa

Penn State
Huck Undergraduate Visiting Research Scholar

PIRG - Job Openings for Graduating Seniors
Jobs

Project Horseshoe Farm
Gap Year Fellowship

Roswell Park Cancer Institute
Summer Research Programs

Southern Teaching Agency
Website

SUNY Oneonta
Summer Research Internships in Field Bio &
Environmental Monitoring

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

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 Rochester, Visual Science
Summer Fellowship Program

Opportunities

University of Texas South Western
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 Research Fellowship Program

University of Lausanne
Summer Undergraduate Research Program

University of Missouri
Alcohol Research Training Summer School/Internship

University of Pittsburgh
Summer Research Fellowship

Virginia Commonwealth University
Post baccalaureate Research Education Program (VCU
PREP)

The Woodrow Willson National Fellowship Foundation
Teaching Fellowships

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 Brook University
Neuroscience PhD Program
Neuroscience Master's Program

Texas Tech University
Biomedical Sciences Programs

Uniformed Services University
Medical School

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
Genome Sciences

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 \(JUR\)](#)
[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

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