

UPBM E-Newsletter

Undergraduate Program in Biology and
Medicine



Congratulations Class of 2020!



This e-newsletter is dedicated to the Class of 2020 and all their accomplishments throughout their time here at the University of Rochester. It has been an honor to see you all grow and develop into exceptional learners and scientists.

Graduation is always bittersweet and we will miss you all dearly. We know that whatever the future has in store for you, you will be able to tackle any and all challenges that come your way.

Please make sure to stay in touch and if you're ever in the Rochester area, we would love for you to pop in to say hello!

-The UPBM Office



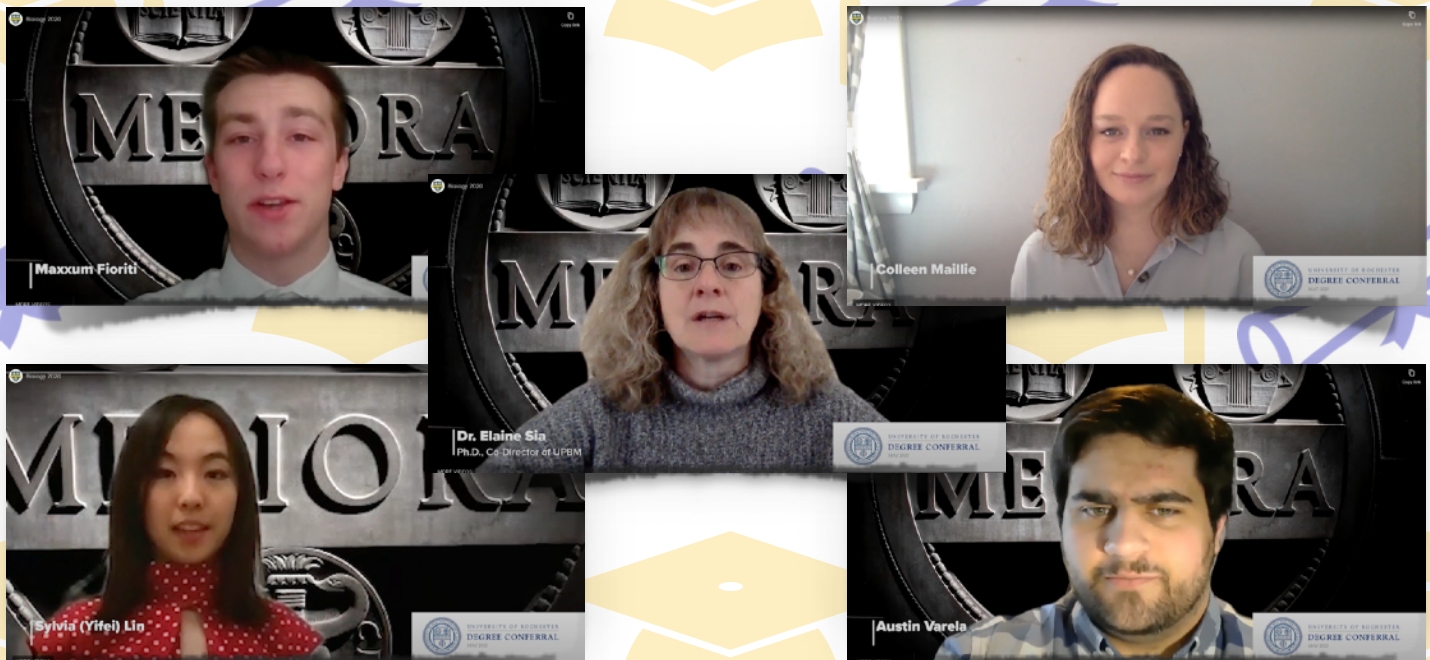
Virtual Commencement Ceremony

On Friday, May 15th, 2020 the University held its first ever Virtual Commencement Ceremony. Students and their families were directed to visit the schools online [Commencement webpage](#). On this page they were able to view a video message from President Sarah Mangelsdorf in which she officially conferred the degrees. Other speakers include videos from Board Chair Rich Handler, as well as U.S. Senator Charles E. Schumer and N.Y Lieutenant Kathleen Hochul.

When the students navigated to their specific school they could view a message from the Deans and their department-specific webpages. **The Department of Biology and the UPBM** page had a video that included Dr. Elaine Sia, Chair of Biology, and 4 student speakers. They were Austin Varela '20, Colleen Maillie '20, Sylvia (Yifei) Lin '20, and Maxxum Fioriti '20.

The Departments of Biochemistry, Microbiology, and Neuroscience each had their own degree conferral webpages for their respective majors. These included speeches and congratulatory messages from faculty members.

At 6:30 p.m. the Biology faculty and staff held the first ever **live virtual commencement reception for all UPBM graduates**. It was a chance for students and their families to pop in and say hello to faculty members, UPBM staff, colleagues, and friends. We split faculty up into different rooms so that students and their families could more easily interact with each other. In total between faculty, staff, students, and family, we had 109 people attend. It was really great to see everyone and celebrate their achievements!



Links

- * [Department of Biology Commencement Page](#)
- * [Department of Biology Yearbook](#)
- * [Department of Biology Senior Slideshow](#)
- * [UPBM Website](#)
- * [E-Newsletter Archive](#)
- * [Department of Biochemistry Commencement Page](#)
- * [Department of Microbiology Commencement Page](#)
- * [Department of Neuroscience Commencement Page](#)
- * [UPBM Facebook Page](#)
- * [Department of Biology page](#)

The background of the page is decorated with a repeating pattern of yellow graduation caps and purple rolled-up diplomas. A central dark blue rounded rectangle with a yellow border contains the table of contents.

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UPBM Class of 2020 Graduates

Cum Laude - CL
Magna Cum Laude - MCL

Summa Cum Laude - SCL
Take 5 Scholars - T5

Phi Beta Kappa - ΦBK
Honors in Research - **

Bachelor of Arts

Biological Sciences

Fozil Allayev
Byron Arevalo
Nuradean Ashkar
Abby Broomfield
Cardez Brown
Amoy Bryan
Melissa Bucklin
Miralem Buljina
Tea Cappiello
Sulnerys Carmona
Austin Carr
Julius Dupont
Zachariah Erickson
Adit Ganguly MCL ΦBK
Kerrie Go
Mahwish Hamayun T5
Leon Harvey
Yufei He
Ashia Hurlbutt
Felicia Jones
Grant Kravetz
Kevin Ladd
Yifei Lin T5 ΦBK
Aniruddh Mandalapu MCL ΦBK
Audry Mattle
Jospheh Maugeri
Jessena Maxwell
Jaeden Mckenzie
Philip Milman
Neha Narayan SCL ΦBK
Ethan Okoshi
Danielle Pascua
Hannah Perry CL
Sierra Prior
Ashok Rana
Kelly Reese
William Schlageter T5
Shalini Shah CL
Cameron Tate CL
Edison Tenecela
Prem Thapa

Emma Tonetti
Eden Toporek
Radha Tummalapenta CL
Matthew Varano CL
Elizabeth Warncke
Yuedi Yu MCL

Bachelor of Science

Biochemistry

Allison Arne
Kamel Awayda SCL ΦBK **
Terrikia Benjamin
Alan Boka CL
Brandon Courteau SCL ΦBK **
Brian Fan CL
Maia Fefer CL ΦBK
Paula Guerra T5
Justin Halterman SCL ΦBK
Aidan Kendra **
Emma Kruger **
Shaopeiwen Luo CL
Mohammad Mansoor CL
Sri Nuvvula CL
Lydia Petricca
Abigail Reinhart MCL ΦBK
Tiana Rohe **
Malavika Satheesh MCL ΦBK
Asir Savdharina T5
Iyad Sayed Issa T5
Mahlon Schaffer CL
Mila Stanojevic CL
Ethan Toriki MCL ΦBK
Ariel Yin

Bachelor of Science

Computational Biology

Himi Begum
Tamanna Bhatia T5
Tongyi Fei MCL
Hia Ghosh T5
Xueyao Guo MCL
Lindsey Hall
Andrea Johnson T5

Jeerthi Kannan
Sean Kilcullen CL
Matthew Le T5
Sharon Lee
Colleen Maillie CL **
Matthew Murante CL
Nadim Quazi
Jacob Rozowsky MCL ΦBK
Avishek Sanjel Chhetri CL
Gilbert Smolyak CL
Hannah Stuart
Alexandre Trapp MCL ΦBK **
Austin Varela **
Bo Zhou CL

Bachelor of Science

Cell and Developmental Biology

Connie Chang MCL
Nathaniel Connolly
Alessandra DiMauro **
Taylor Dontino
Ethan Fisher
Bianca Hall E5
Xiaojie Huang
Marina Kern
Baixin Liang MCL ΦBK
Olivia Matvey
Vennela Pandaraboyina CL
Diamond Pinder
Khaled Refaai
Colleen Rouse
Sierra Sancomb
Jianing Song T5
Caroline Thomas MCL

UPBM Class of 2020 Graduates

Cum Laude - CL
Magna Cum Laude - MCL

Summa Cum Laude - SCL
Take 5 Scholars - T5

Phi Beta Kappa - ΦBK
Honors in Research - **

Bachelor of Science Ecology and Evolutionary Biology

Michaela Burrell T5
Henry Ernsberger
Jessica Fabrizio-Stover CL
Alexis Ferguson
Moriah Kunes
Kenna Lauer
Emily Mason

Bachelor of Science Microbiology

Alan Alvarado
Ronak Amir Sardari CL
Jonathan Bearden
Sarah Belanger
Virginia Cafferky
Elizabeth Cej
Yoonjung Cha
Ashin Chadha
Kaileigh Davis
Jessica DiManno
Danielle Falkenstein MCL
Yidan Gao SCL ΦBK
Gerard Gonzales
Jordan Hurlbut **
Madina Jumabaeva **
Nolan Kearns
Megan Kice
Yong Bin Lee
Yu-Chi Lee
Abraham Loncke
Arianna Lopez **
Elizabeth Mastoloni
David Nickels CL
Sunny Patel
Luke Peterson
Melissa Proven CL **
Ragyie Rawal
Claire Ruben CL
Gaia Sartorelli
Jamison Seabury
Yi Fan Shen **

Helen Shung MCL
Ian Steinfield
Ronay Stevens
Sheridan Sweet
Denes Szekeres MCL ΦBK
Amanda Waugh **
Callie Winters SCL ΦBK
Emma Wisniewski
Brianna Zavala

Bachelor of Science Molecular Genetics

Shania Ali MCL ΦBK
Alila Amangali
Advait Athreya SCL ΦBK
Mateo Bejarano
Alison Ben-Mayor
Brandon Dexter **
Maxxum Fioriti MCL **
Roisin Flanagan T5 **
Amanda Guido MCL
Jasmine Han T5
Hui Yu Juan CL
Camila Lage Chavez T5
Kalina Lapenta
Ryan Liebegott MCL
Zhengfeng Liu MCL
Celina Manley T5
Brian Miller
Dalia Mitchell MCL ΦBK
Jessica Nguy CL
Charles Quatela
Alexander Riedelsheimer
Zachary Smith CL
Sabrina Sun
Prerna Vatsa
Alyssa Rose Williams
Jenny Yau SCL ΦBK

Bachelor of Science Neuroscience

Rick Ahn
Eric Albuquerque MCL ΦBK **
Gianna Balassone
Makaila Banks

Daniel Barnett MCL
Dominic Bunn
Melissa Chang MCL ΦBK
Arokoruba Cheetham-West MCL
Anson Cheng **
Lydia Currie CL
Cameron DeMott MCL ΦBK
Shelia Doll T5
Khai Du MCL
Andrew Duffy T5
Tyler Falter
Maria Gil Diaz CL **
Lydian Green
Sravya Gudipudi
Akansh Hans
Aurakoch Harnpramukkul CL **
Apoorva Indraghanty
Zoe Irving CL
Deniz Kesmen
Wooyoung Kim
Annika Land
Hayoung Lee
Alexis Marciniak
Rafal Mazur MCL ΦBK
Tanner Metcalfe CL
Emily Miller
Christina Moretz
Christine Ng CL
Candice Patience
Yongsoo Ra SCL ΦBK **
Miruna Radulescu
Varun Ravikumar
Rebecca Reef
Garrett Renslow MCL ΦBK
Brianna Roy MCL ΦBK
Akimi Sasaki
Ethan Schlotterbeck
Bradley Smith T5
Mackenzie Smith
Priyanka Srivastava
Hannah Stone
Pratyusha Tadepalli
Sarah Therrien
Caroline Ware
Anna Wassenberg

Honors in Research

24 Seniors successfully wrote and defended their Senior Thesis

The Undergraduate Program in Biology and Medicine (UPBM) provides majors in the B.S. or B.A. tracks the opportunity to graduate with honors in research. Students must achieve a minimum GPA of 2.7 and defend their written thesis at a meeting of their advisory committee.

Most students seeking a degree with honors in research have worked on a research project for a year or more and have achieved significant results. Those who complete their research and then write and successfully defend a senior thesis are rewarded with the phrase “Honors in Research” added to their transcripts. This year, the following graduates earned honors in research:

Eric Albuquerque BNS

Thesis: “Comparison of neuronal activity in the medial and ventral prefrontal cortices during audiovisual working memory in nonhuman primates”
Faculty Mentor: Dr. Lizabeth Romanski
Neuroscience

Kamel Awayda BBC

Thesis: “Characterization of THUMP Domain-Containing Protein 1, A Putative Regulator of RNA Modification”
Faculty Mentor: Dr. Mitchell O’Connell
Biochemistry and Biophysics

Anson Cheng BNS

Thesis: “The Role of TG2 in Astrocytic Modulation of Neurite Outgrowth and Synapse Formation”
Faculty Mentor: Dr. Gail Johnson
Anesthesiology and Perioperative Medicine, Pharmacology and Physiology, Neurotherapeutic Discovery

Brandon Courteau BBC

Thesis: “Characterization of a plasticity associated horizontal gene transfer in *A. pisum*”
Faculty Mentor: Dr. Jennifer Brisson
Biology

Brandon Dexter BMG

Thesis: “Identification of genes that regulate vttRa expression in T3SS-positive *V. cholerae*”
Faculty Mentor: Dr. Michelle Dziejman
Microbiology

Alessandra DiMauro BCD

Thesis: “Prolactin is Expressed in Uterine Leiomyomas and May Promote their Growth”
Faculty Mentor Dr. Stephen Hammes
Department of Pharmacology and Physiology, Department of Pathology and Laboratory Medicine

Maxxum Fioriti BMG

Thesis: “Mapping the site of SIRT6 Self-Ribosylation to Determine in vivo Relevance”
Faculty Mentor: Dr. Vera Gorbunova
Biology

Roisin Flanagan BMG

Thesis: “Mapping X-Linked Hybrid Male Sterility Between drosophila Species”
Faculty Mentor: Dr. Daven Presgraves
Biology

Yidan Gao BMB

Thesis: “Acinar Cell Senescence After Irradiation”
Faculty Mentor: Dr. Catherine Ovitt
Department of Biomedical Genetics

Maria Cristina Gil Diaz BNS

Thesis: “Mechanism of action and effects of Zoledronic acid treatment on bone outcomes in primary and secondary osteoporosis”
Faculty Mentor: Dr. David R. Weber
Pediatrics Endocrinology

Aurakoch Harnpramukkul BNS

Thesis: “Effect of Anticipated Water Clearance on Glymphatic Clearance”
Faculty Mentor: “Dr. Maiken Nedergaard
Center of Translational Neuromedicine

Jordan Hurlbut BMB

Thesis: “Identification of EGFP-Tagged Neuronal Protein Markers of Stress in the Brain”
Faculty Mentor: Dr. Marc Halterman
Neurology

Madina Jumabaeva BMB

Thesis: “IgA response to *Campylobacter* and *Cryptosporidium* in OOM and ROC Samples”
Faculty Mentor: Dr. Kirsi Jarvinen-Seppo
Pediatric Allergy and Immunology

Aidan Kendra BBC

Thesis: “SUMO transcriptionally represses diverse proteostatic stress responses in *C. elegans*”
Faculty Mentor: Dr. Andrew Samuelson
Biomedical Genetics

Emma Kruger BBC

Thesis: “Combination Therapy of IL-12mRNA Enhances the Efficacy of SBRT in a Preclinical Orthotropic Model of Pancreatic Cancer”
Faculty Mentor: Dr. Scott Gerber
Surgery

Arianna Lopez BMB

Thesis: “Evaluating the dissemination, survival, and pathogenicity of *Mycobacterium abscessus* smooth and rough morphotypes in tadpole and adult *Xenopus laevis*.”
Faculty Mentor: Dr. Jacques Robert

Colleen Maillie BCB

Thesis: “Molecular Modeling of ClpX for Optimal Protein Fingerprinting”
Faculty Mentor: Dr. Anne Meyer
Biology

Melissa Proven BMB

Thesis: “Rescue of Inosine tRNA Modification in Patient Fibroblasts With Novel ADAT3 Mutations”
Faculty Mentor: Dr. Dragon Fu
Biology

Yongsoo Ra BNS

Thesis: “Integration of Visual and Nonvisual Signals Regarding Eye Rotation in Macaque Area MSTd”
Faculty Mentor: Dr. Gregory DeAngelis
Neuroscience, Brain and Cognitive Sciences

Tiana Rohe BBC

Thesis: “Structure and Function analysis of a Gene-Regulatory Riboswitch from *Faecalibacterium prausnitzii*”
Faculty Mentor: Dr. Joseph Wedekind
Biochemistry and Biophysics

Yifan Shen BMB

Thesis: “Identifying the Role of Small RNAs on Feline Leukemia vRuses in Cat Testes”
Faculty Mentor: Dr. Xin Zhiguo Li
Biochemistry and Biophysics

Alexandre Trapp BCB

Thesis: “Comparative ex vivo biology of mouse, human, and naked mole-rat mesenchymal stem cells”
Faculty Mentor: Dr. Vera Gorbunova
Biology

Austin Varela BCB

Thesis: “Evolutionary Rate Correlations: A Tool to Predict Protein-Protein Interactions”
Faculty Mentor: Dr. John Werren
Biology

Amanda Waugh BMB

Thesis: Identifying putative regulators of vttRA expression in non-O1 non-O139 strains of *V. cholerae*”
Faculty Mentor: Dr. Michelle Dziejman
Microbiology and Immunology

Thank you Peer Advisors!

The 2019-20 academic year marks the 5th year that the UPBM has participated in the College's Peer Advising Program. Our peer advisors are a great resource for both current and prospective students. They can help them navigate college life, answer questions regarding academics, schedules, as well as just being a shoulder to lean on.

We are so grateful for this years Peer Advisor's and we cannot thank you enough for all the help you have been. We are excited to see where your life takes you and we hope your experiences here at the University of Rochester have made a lasting impact.

Michaela Burrell BEB
Arokoruba Cheetham-West BNS
Maia Fefer BBC
Maxxum Fioriti BMG
Adit Ganguly BIO
Lindsey Hall BCB
Yifei (Sylvia) Lin BIO



Interested in hearing what it's like to be a Peer Advisor? Ruba details his experiences from this year below:

"Being the Neuroscience peer advisor was one of the highlights of my senior year. It was a very fulfilling experience pointing students to helpful resources, listening to their riveting extracurricular and research interests, and helping them devise plans of action to enable them to achieve their goals. I met with mentees for ~6 hours a week on average and the questions I addressed ranged from the typical Neuroscience course scheduling concerns to sharing advice on navigating the pre-med life with my pre-med mentees. As a peer advisor, I learnt important lessons in leadership and mentorship.

The onset of the coronavirus pandemic brought its unique challenges. Although I was no longer able to meet mentees in-person, through video-conferencing and email communication, I was able to advise students even more than was possible prior to COVID-19.

My parting advice to all my mentees reading this is that you endeavor to build and contribute to a community of like-minded & passionate students around you (whether virtual or in-person). And don't be afraid to ask questions!! You are surrounded by incredible peers, mentors, professors, and administrators that are always willing to offer assistance. Take advantage of these resources but more importantly, endeavor to be a reliable resource for others as well! You are amazing, resourceful, and capable! And I am rooting for you!

Even though I am leaving Rochester, if you have any questions about the Neuroscience major, the pre-med life, or medical school applications, feel free to reach out to me at rubionicswest@gmail.com"

Thank you to the Biology Teaching Assistants of the 2019-20 school year!



We are especially grateful to the “Unsung Heroes” of our program - our undergraduate teaching assistants. They are real agents of change by offering themselves as strong role models, cheerleaders, counselors, as well as tutors. They share our pain when our students don't do quite as well as expected, politely point out small mistakes that instructors make before they can become larger ones, and work tirelessly with their students. They accept without reservation the charge to become true advocates of their peers. Thank you!

Ruth Agwaze
Hawraa Ahmed
Ana Alarcon
Michael Alarie
Kawthar Alashoor
Shania Ali
Ronak Amir Sardari
Emily Andrews
Arisha Ansari
Advait Athreya
Kamel Awayda
Caroline Benec
Terrikia Benjamin
Perya Bhagchandani
Felix Bianchi
Mairead Bresnahan
Jorge Caja Zayas
Eric Cefaloni
Eloise Chan
Lauren Chavanne
Arokoruba Cheetham-West
Sophia Chima
Haley Cohen
Hannah Cook
Marysa Corona
Brandon Courteau
Abigail Cramer
Benjamin Dale
Lizbeth De La Rosa
Cameron Demott
Amanda Despart
Jack Donlon
Shellie Downie
Penelope Dring
Rose Driscoll
Paige Dumont
Jessica Fabrizio-Stover
Tongyi Fei
John Feldkamp
Maxxum Fioriti
Roisin Flanagan
Hannah Foster
Zachary Galcik
Adit Ganguly
Anna Gao
Yidan Gao
Hia Ghosh
Gilbert Giri
Peri Goldberg
May Goldenberg

Daniel Green
Hanwen Gu
Elijah Hale
Bianca Hall
Lindsey Hall
Justin Halterman
Aurakoch Harnpramakkul
Yue Lin Hu
Gabriel Isaacson
Justin Jablonski
Monica Jackson
Ji-Ze Jang
George Kassiss
Harrison Kern
Akhil Kholwadwala
Venkatavamsikri Kovelakuntla
Krishni Kumaresan
Moriah Kunes
Camila Lage Chavez
Edan Lambright
Daimarelys Lara
Hayoung Lee
Songeun Lee
Kexin Li
Baoxin Liang
Rui Ting Liang
Yifei Lin
Zhengfeng Liu
Emily Loose
Arianna Lopez
Isabel Lopez Molini
Quan Lu
Colleen Maillie
Mohammad Mansoor
Julia McDonough
Charles Met
Dalia Mitchell
Tracey Moyston
Daniel Mwangi
Nicolette Nanis
Sayuj Narayan
Ekene Nnadika
Emily O'Brien
Eleanor O'Neill
Mary Panapento
Angela Park
Claire Paulsen
Lindsey Perrin
Luke Peterson
Alexis Pope

Alexandra Pritchard
Melissa Proven
Shuang Qing
Alexandria Raab
Khaled Refaai
Joel Reiter
Garrett Renslow
Joseph Ricottone
Elizabeth Roe
Yeonseong Seo
Fatima Shah
Kevin Shan
Sonakshi Sharma
Yi Fan Shen
Isabel Sia
Leah Sikand
Aman Singh
Samuel Smith
Zachary Smith
Jianing Song
Katherine Stankevich
Nina Stash
Steve Stephen
Jacob Stern
Maggie Straight
Sabrina Sun
Sheridan Sweet
Anika Tahsin
Ruiyue Tan
Jonghong Tang
Leonor Teles
Sarah Therrien
Caroline Thomas
Alexandre Trapp
Radha Tummalapenta
Milla Turner
Kayla Ucciferri
Bhavana Upadhyaya
Olivia Waysack
Eleanor Wise Bellin
Hayley Wnuk
Yihan Xie
Sifan Yang
Jenny Yau
Justin Yu
Gregory Zapas
Rui Zhang
Mingyi Zhu

Virtual Undergraduate Research Exposition

23 UPBM Majors presented their research this year

The Undergraduate Research Exposition is a college-wide event in which UR Students at all levels and in all areas of study are invited to present their investigative and creative work.

Normally, the expo is an in-person event that allows our students to gain experience with presenting and defending their research in front of others. Due to the coronavirus pandemic, this years expo went virtual. This didn't deter our students, however, and we still had an impressive showing, even with it being in a digital space. This years participants are as follows:

Kamel Awayda BBC
Molly Behan BBC
Olivia Brumfield BNS
Haley Cohen BMB
Tongyi Fei BCB
Yuewei Fei BCB
Paula Guerra BBC
Apoorva Indraghanty BNS

Qingyuan Jia BMG
Emily Laskey BBC
Rebecca Lena BNS
Arianna Lopez BMB
Stefani Ma BNS
Evelyn Matei BNS
Rafal Mazur BNS
Jessica Mitchell BNS

Divya Naidu BNS
Jessica Nguy BMG
Shalini Shah BIO
Maggie Straight BMB
Radha Tummalapenta BIO
Zivile Vebrate BCD

To view our student's posters, please visit the follow link: <https://ugresearchuofr.padlet.org/ugresearchuofr/researchexpo2020> and click "Natural Sciences".

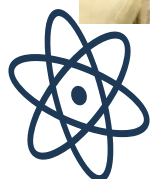
Biotechnology Certificates

The Certificate Program in Biotechnology allows students to take course that will give them the background needed for entry level jobs in Biotechnology or advanced study in the field. The requirements for the certificate compliment both the BA and BS tracks in Biological Sciences. 10 of our graduating seniors completed the requirements for the certificate and they are listed below:

Sarah Belanger BMB
Madina Jumabaeva BMB
Nolan Kearns BMB
Arianna Lopez BMB

Sunny Patel BMB
Luke Peterson BMB
Melissa Proven BMB

Ragyie Rawal BMB
Yi Fan Shen BMB
Prerna Vatsa BMG



de Kiewiet Summer Research Fellowship

Summer 2019 and 2020 Fellows

The de Kiewiet Summer Research Fellowship is a 10 weeks research fellowship where students work in the lab of their research mentor. The students then present their findings at the UPBM poster session the following October. The fellowship allows our students to gain valuable research experience. We hope to honor our 2020 Fellows in the fall.

Kamel Awayda BBC '20

Title: "Characterization of THUMP Domain-Containing Protein 1 (THUMP1), a Putative Regulator of RNA Modification"

Mentor: Dr. Mitchell O'Connell
Biochemistry and Biophysics

Daniel Barnett BNS '20

Title: "The Mechanism of PP1B in Synaptic Transmission"

Mentor: Dr. HouHui Via
Pharmacology and Physiology

Michaela Burrell BEB '20

Title: "Examining the Effects of Sub-Lethal Ethanol Exposure on the Mating Behaviors and Success of *Drosophila melanogaster*"

Mentor: Dr. James Fry
Biology

Paula Guerra BBC '20

Title: "Proteome Wide Identification of Substrates for Oxygenases"

Mentor: Dr. Sina Ghaemmaghami
Biology

Yifei Lin BIO '20

Title: "Centenarian SIRT6 in Cancer Cells"

Mentor: Dr. Vera Gorbunova
Biology

Melissa Proven BMB '20

Title: "Characterization of Novel Mutations in the Human ADAT3 Gene, Causing Intellectual Disability"

Yongsoo Ra BNS/CSC '20

Title: "Origin of Dynamic Perspective Signals in the Macaque Brain"

Mentor: Dr. Gregory DeAngelis
Neuroscience

Alexandre Trapp BCB '20

Title: "Long-Term Culture and Transcriptional Profiling of Naked Mole-Rat Hematopoietic Stem Cells"

Mentor: Dr. Andrei Seluanov
Biology

Austin Varela BCB/DCS '20

Title: "Applying Evolutionary Rate Correlation to Identify Protein Interactions"

Mentor: Dr. John Werren
Biology

Catherine Barker BCB '21

Title: "Generating a computational algorithm for designing probes against mammalian tRNAs"

Mentor: Dr. Dragon Fu
Biology

Sammy Cheng BMB '21

Title: "Life History of *Wolbachia* Lateral Gene Transfers"

Mentor: Dr. John Werren
Biology

Hannah Cook BEB '21

Title: "Nasonia in Nature: Tracking the Local Extinction of a Missing Species"

Faculty Mentor: Dr. Jack Werren
Biology

Gilbert Giri BCB '21

Title: "Imbalance in RNA Pol II Pausing and Its Impact on Tumor Cells"

Mentor: Dr. Paula Vertino
Biomedical Genetics

Nivedita Iyer BBC '21

Title: "Roles of TAN1 in tRNA biology in *Schizosaccharomyces pombe*"

Mentor: Dr. Eric Phizicky
Biochemistry and Biophysics

Qingyuan Jia BMG '21

Title: "Investigate the relationship between cell reintegration and cell division"

Mentor: Dr. Dan Bergstralh
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

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

Maggie Straight BMB '21

Title: "Novel antimicrobials with activity against mycobacterium"

Mentor: Dr. Martin Pavelka
Microbiology and Immunology

Anika Tahsin BMG '21

Title: "Protein Crystallography: Crystallization of Engineered Myoglobin Biocatalysts"

Mentor: Dr. Rudi Fasan
Chemistry

Jinghong Tang BCD '21

Title: "Function of Heat Shock Factor in Normal Development and Tumor Growth in *Drosophila melanogaster*"

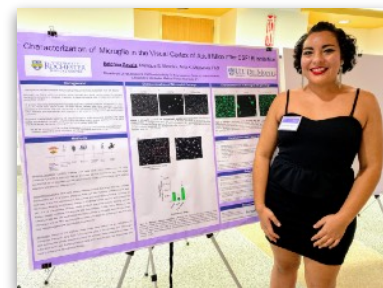
Mentor: Dr. Michael Welte
Biology

Thirst for Knowledge

Class of 2020 graduates who participated in Independent Research courses

Independent research courses allow students to gain research experience in the various labs around campus and the medical center. This is one of the more popular aspects of our program. Students find a research mentor in their specific area of interest. They will develop a course with specific objectives based on grading, laboratory techniques, grading outcomes, and more. The course can be taken for 2, 3, or 4 credit hours.

Approximately half of our graduating class has participated in one or more independent research courses during their time here at the University of Rochester. Their contributions to the scientific community are immeasurable and we cannot commend them enough for their achievements.



Eric Albuquerque BNS

Research Mentor: Dr. Lizabeth Romanski
Brain & Cognitive Sciences

Ronak Amir Sardari BMB

Research Mentor: Dr. George A. Porter
Pediatrics

Allison Arne BBC

Research Mentor: Dr. Craig Morrell
Medicine

Advait Athreya BMG

Research Mentor: Dr. Vera Gorbunova & Dr. Andrei Seluanov
Biology

Kamel Awayda BBC

Research Mentor: Dr. Mitchell O'Connell
Biochemistry and Biophysics

Daniel Barnett BNS

Research Mentor: Dr. Dragony Fu
Biology

Himi Begum BCB

Research Mentor: Dr. Justin Fay & Dr. Catherine Ovitt
Biology, Biomedical Genetics

Sarah Belanger BMB

Research Mentor: Dr. Stephen Dewhurst
Microbiology and Immunology

Alison Ben-Mayor BMG

Research Mentor: Dr. Robert Glenn Quivey & Dr. Yi-Tao Yu
Microbiology and Immunology, Biochemistry and Biophysics

Terriquia Benjamin BBC

Research Mentor: Dr. Xin Bi
Biology

Michaela Burrell BEB

Research Mentor: Dr. Nancy Chen
Biology

Virginia Cafferky BMB

Research Mentor: Dr. Lisa Delouise
Dermatology

Melissa Chang BNS

Research Mentor: Dr. Yi-Fen Lee
Urology

Arokoruba Cheetham-West BNS

Research Mentor: Dr. Rashad Hussain
Neurosurgery

Brandon Courteau BBC

Research Mentor: Dr. Jennifer A. Brisson
Biology

Brandon Dexter BMG

Research Mentor: Dr. Michelle Marie Dziejman
Microbiology and Immunology

Alessandra DiMauro BCD

Research Mentor: Dr. Stephen Hammes
Endocrinology, Diabetes, and Metabolism

Taylor Dontino BCD

Research Mentor: Dr. Kavaljit Chhabra
Endocrinology, Diabetes, and Metabolism

Jessica Fabrizio-Stover BEB

Research Mentor: Dr. Calvin Lloyd Cole & Dr. Lynn Lilly Cole
Orthopaedics

Brian Fan BBC

Research Mentor: Dr. Alan Marc Grossfield
Biochemistry and Biophysics

Maia Fefer BBC

Research Mentor: Dr. Sina Ghaemmaghani
Biology

Tongyi Fei BCB

Research Mentor: Dr. Thomas J Mariani
Pediatrics

Maxxum Fioriti BMG

Research Mentor: Dr. Vera Gorbunova & Dr. Andrei Seluanov
Biology

Ethan Fisher BIO

Research Mentor: Dr. Michael Welte
Biology

Roisin Flanagan BMG

Research Mentor: Dr. Daven Presgraves
Biology

Adit Ganguly BIO

Research Mentor: Dr. Vera Gorbunova & Dr. Andrei Seluanov
Biology

Yidan Gao BMB

Research Mentor: Dr. Catherine Ovitt
Biomedical Genetics

Sravya Gudipudi BNS

Research Mentor: Dr. Farran Briggs
Neuroscience

Paula Guerra BBC

Research Mentor: Dr. Sina Ghaemmaghani
Biology

Akansh Hans BNS

Research Mentor: Dr. Ania Majewska
Neuroscience

Aurakoch Harnpramukkul BNS

Research Mentor: Dr. Maiken Nedergaard
Neuroscience/Neurology

Leon Harvey BIO

Research Mentor: Dr. Sina Ghaemmaghani
Biology

Xiaojie Huang BCD

Research Mentor: Dr. Xin Bi
Biology

Jordan Hurlbut BMB

Research Mentor: Dr. Marc W Halterman
Neurology

Apoorva Indraghanty BNS

Research Mentor: Dr. Julie L Fudge
Neuroscience

Zoe Irving BNS

Research Mentor: Dr. Thomas George O'Connor
Psychiatry

Hui Yu Juan BMG

Research Mentor: Dr. Ian Dickerson
Neuroscience

Madina Jumabaeva BMB

Research Mentor: Dr. Kirsi M Jarvinen-Seppo
Pediatrics

Nolan Kearns BMB

Research Mentor: Dr. John Frelinger
Microbiology and Immunology

Aidan Kendra BBC

Research Mentor: Dr. Andrew Samuelson
Biomedical Genetics

Deniz Kesmen BNS

Research Mentor: Dr. Michael Welte
Biology

Emma Kruger BBC

Research Mentor: Dr. Scott Andrew Gerber & Dr. Sina Ghaemmaghani & Dr. Alan Marc Grossfield
Microbiology and Immunology, Biology,
Biochemistry and Biophysics

Camila Lage Chavez BMG

Research Mentor: Dr. Sina Ghaemmaghani
Biology

Kalina Lapenta BMG

Research Mentor: Dr. Benoit Biteau & Dr. David Yule
Biomedical Genetics, Pharmacology and
Physiology

Matthew Le BCB

Research Mentor: Dr. Nancy Chen
Biology

Yong Bin Lee BMB

Research Mentor: Dr. Minsoo Kim
Microbiology and Immunology

Yu-Chi Lee BMB

Research Mentor: Dr. Matthew Rand & Dr. Andrew Samuelson
Environmental Medicine, Biomedical Genetics

Baoxin Liang BCD

Research Mentor: Dr. Steven A. Goldman
Neurology

Yifei Lin BIO

Research Mentor: Dr. Vera Gorbunova
Biology

Zhengfeng Liu BMG

Research Mentor: Dr. Xin Bi
Biology

Arianna Lopez BMB

Research Mentor: Dr. Martin Pavelka & Dr.
Jacques Robert
Microbiology and Immunology

Shaopeiwen Luo BBC

Research Mentor: Dr. Harris A Gelbard
Microbiology and Immunology

Colleen Maillie BCB

Research Mentor: Dr. Daniel Bergstralh & Dr. Anne
Meyer
Biology

Aniruddh Mandalapu BIO

Research Mentor: Dr. Alayna Erin Loiselle
Orthopaedics

Mohammad Mansoor BBC

Research Mentor: Dr. Archibald Perkins & Dr.
Andrew Samuelson
Pathology and Laboratory Medicine, Biomedical
Genetics

Alexis Marciniak BNS

Research Mentor: Dr. Thomas George O'Connor
Psychiatry

Jessena Maxwell BIO

Research Mentor: Dr. Sina Ghaemmaghami
Biology

Brian Miller BMG

Research Mentor: Dr. Anwar Iqbal & Dr. Hartmut
Land & Dr. Andrei Seluanov
Pathology and Laboratory Medicine, Biomedical
Genetics, Biology

Dalia Mitchell BMG

Research Mentor: Dr. Mark Noble
Biomedical Genetics

Jessica Nguy BMG

Research Mentor: Dr. Mitchell O'Connell
Biochemistry and Biophysics

David Nickels BMB

Research Mentor: Dr. Keith Webster Nehrke
Pharmacology and Physiology

Sri Nuvvula BBC

Research Mentor: Dr. John Foxe
Neuroscience

Sunny Patel BMB

Research Mentor: Dr. Yi-Tao Yu
Biochemistry and Biophysics

Luke Peterson BMB

Research Mentor: Dr. John Daniel Lueck
Pharmacology and Physiology

Melissa Proven BMB

Research Mentor: Dr. Dragony Fu
Biology

Ragyie Rawal BMB

Research Mentor: Dr. Luis A Martinez-Sobrido
Microbiology and Immunology

Kelly Reese BCD

Research Mentor: Dr. Archibald Perkins
Pathology and Laboratory Medicine

Khaled Refaai BCD

Research Mentor: Dr. Gloria May Culver & Dr.
Elaine Sia
Biology

Tiana Rohe BBC

Research Mentor: Dr. Joseph E. Wedekind
Biochemistry and Biophysics

Brianna Roy BNS

Research Mentor: Dr. Rashad Hussain
Neurosurgery

Claire Ruben BMB

Research Mentor: Dr. Cynthia Monaco
Infectious Diseases

Gaia Sartorelli BMB

Research Mentor: Dr. Deborah Fowell
Microbiology and Immunology

Malavika Satheesh BBC

Research Mentor: Dr. James F Miller
Microbiology and Immunology

Asir Savdharia BBC

Research Mentor: Dr. Yi-Tao Yu
Biochemistry and Biophysics

Iyad Sayed Issa BBC

Research Mentor: Dr. Sina Ghaemmaghani
Biology

Mahlon Schaffer BBC

Research Mentor: Dr. Chris Proschel
Biomedical Genetics

Jamison Seabury BMB

Research Mentor: Dr. Paul Dunman
Microbiology and Immunology

Yi Fan Shen BMB

Research Mentor: Dr. Xin Z Li
Biochemistry and Biophysics

Mackenzie Smith BNS

Research Mentor: Dr. Marc W Halterman
Neurology

Zachary Smith BMG

Research Mentor: Dr. Vera Gorbunova & Dr. Andrei Seluanov
Biology

Hannah Stuart BCB

Research Mentor: Dr. Margot Mayer-Proschel & Dr. Mark Noble
Biomedical Genetics

Sabrina Sun BMG

Research Mentor: Dr. Justin Fay
Biology

Pratyusha Tadepalli BNS

Research Mentor: Dr. Jeremy Jamieson
Psychology

Edison Tenecela BIO

Research Mentor: Dr. Robert Glenn Quivey
Microbiology and Immunology

Caroline Thomas BCD

Research Mentor: Dr. Archibald Perkins
Pathology and Laboratory Medicine

Ethan Toriki BBC

Research Mentor: Dr. Bradley Nilsson
Chemistry

Alexandre Trapp BCB

Research Mentor: Dr. Vera Gorbunova & Dr. Andrei Seluanov
Biology

Radha Tummalapenta BIO

Research Mentor: Dr. Richard Libby
Ophthalmology

Austin Varela BCB

Research Mentor: Dr. John Werren
Biology

Prerna Vatsa BMG

Research Mentor: Dr. Patrick Murphy
Biomedical Genetics

Anna Wassenberg BNS

Research Mentor: Dr. Anne Luebke
Biomedical Engineering

Amanda Waugh BMB

Research Mentor: Dr. Michelle Marie Dziejman
Microbiology and Immunology

Alyssa Rose Williams BMG

Research Mentor: Dr. Vera Gorbunova & Dr. Peter Prieto & Dr. Andrei Seluanov
Biology, Surgical Oncology

Callie Winters BMB

Research Mentor: Dr. Michael Welte
Biology

Ariel Yin BBC

Research Mentor: Dr. Angela Glading
Pharmacology and Physiology

Brianna Zavala BMB

Research Mentor: Dr. Ania Majewska
Neuroscience

Bo Zhou BCB

Research Mentor: Dr. Justin Fay
Biology



Honors, Awards, & Accomplishments

2019-20 Academic Year

Ayman Amin-Salem Memorial Award

To be presented each year at Commencement to that member of the senior class who best evidences the quality of good character and good citizenship, such as decency, reliability, responsibility and congeniality. Preference may be given to students who also have an interest in biology or the biological sciences, music, art, writing or athletics.

Brandon Courteau '20 BBC
Jessica Fabrizio-Stover '20 BEB
Camila Lage Chavez '20 BMG
Colleen Maillie '20 BCB
Melissa Proven '20 BMB

Catherine Block Memorial Fund Prize

Awarded to the junior woman in any field of science as recognition of outstanding ability and achievement.

Alydia Meinecke '21 BIO
Hannah Cook '21 BEB

Fulbright U.S. Student Program

The Fulbright Scholarship competition is sponsored by the Department of State, designed to promote mutual understanding and peace between the United States and other nations through educational and cultural exchange. It offers opportunities for career-launching study, teaching, and research abroad. Scholars pursuing study or research design their own programs and arrange institutional affiliations in the host countries. [More information about this year's competition.](#)

Kamel Awayda '20 BBC - Australia
Melissa Chang '20 BNS/PSY - Germany
Jacob Rozowsky '20 BCB/CHM - India

Grace McCormack Fund for Biology Prize

This award is given annually to worthy students who, in the judgement of the Department, have great potential and have demonstrated excellence in academics, teaching, service to the department, or scientific research.

Terrickia Benjamin '20 BBC
Michaela Burrell '20 BEB
Arokoruba Cheetham-West '20 BNS
Jessica Fabrizio-Stover '20 BEB
Maia Fefer '20 BBC
Maxxum Fioriti '20 BMG
Roisin Flanagan '20 BMG
Adit Ganguly '20 BIO
Paula Guerra '20 BBC
Bianca Hall '20 BCD/IPA
Camila Lage Chavez '20 BMG
Yifei Lin '20 BIO
Colleen Maillie '20 BCB

Melissa Proven '20 BMB
Khaled Refaai '20 BCD/PSY
Sheridan Sweet '20 BMB/ANT
Sarah Therrien '20 BNS/PSY
Caroline Thomas '20 BCD/HBS
Austin Varela '20 BCB/DSC

Janet Howell Clark Prize

Woman in the senior class who has shown the greatest promise in creative work in Physics, Chemistry, Biology or Astronomy and who has shown outstanding versatility in the mastery of allied fields.

Jessica Fabrizio-Stover '20 BEB
Paula Guerra '20 BBC
Camila Lage Chavez '20 BMG
Sheridan Sweet '20 BMB
Caroline Thomas '20 BCD

McNair Scholars

The Ronald E. McNair Post-Baccalaureate Achievement Program is named in honor of the late Challenger space shuttle astronaut and laser physicist. Funded through a grant from the US Department of Education, the objective of the McNair Program is to increase the numbers of low-income, first-generation, and underrepresented minority undergraduates who pursue PhD degrees and go on to careers in research and teaching at the university level.

Leon Harvey '20 BIO
Makaila Banks '20 BNS
Michaela Burrell '20 BEB
Shourya Jain '21 BIO
Alydia Meinecke '21 BIO

Merle Spurrier Award

Gives recognition to the senior woman who has made the most outstanding contribution to women sports by demonstrating such qualities as leadership, enthusiasm, and service in her four years at the University. [Article is featured here.](#)

Michaela Burrell '20 BEB

Nathaniel and Helen Wisch Scholarship

The Dr. Nathaniel and Helen Wisch Undergraduate Scholarship provides income that supports a promising junior or senior undergraduate student or students majoring in Biology at the University of Rochester. This years recipients are:

Michaela Burrell '20 BEB
Sammy Cheng '21 BMB

Honors, Awards, & Accomplishments

2019-20 Academic Year

National Science Foundation Graduate Research Fellowship

A federally sponsored program that provides up to three years of graduate study support for US students pursuing doctoral or research-based degrees in STEM, STEM education, and social sciences fields.

Rose Driscoll Ph.D. student

Audrey Goldfarb '19 BIO

Colleen Maillie '20 BCB (Honorable mention)

Peter DiPasquale Male Scholar Athlete Award

Honors the male student athlete who has shown excellence in the classroom and is a role model for his fellow students. [Article is featured here.](#)

Garret Renslow '20 BNS/PSY

Provost's Circle Scholars

The Department of Athletics nominates student athletes who exemplify excellence in academics as well as in their sport for recognition as a [Provost's Circle Scholar](#).

Samantha Mauser '21 BCB

Mary Panepento '21 BMB

Rigby Wile Prize

For proficiency in work in Course I in the Department of Biology. Awarded to members of the freshman or sophomore class.

Sarah Broas '23

Ellen Irving '23

Andrew Iwanowicz '23

Keaton Song '22

Samuel Streicher '23

Take Five Scholars

A unique program to the University of Rochester, it provides an additional semester or year of study, tuition-free. It offers the chance to pursue a demanding major and still enjoy the once in a lifetime opportunity for the broad-based intellectual enrichment of a liberal arts education. More information is on the [Take Five webpage](#).

Tamanna Bhatia BCB/PSY 2020-21

Michaela Burrell BEB 2020-21

Shelia Doll BNS 2019-20

Andrew Duffy BNS/PSY 2019-20

Roisin Flanagan BMG 2019-20

Hia Ghosh BCB 2019-20

Paula Guerra BBC 2020-21

Bianca Hall e5 BCD/IPA

Mahwish Hamayun BIO/HIS 2019-20

Jasmine Han BMG 2019-20

Andrea Johnson BCB 2019-20

Camila Lage Chavez BMG 2020-21

Matthew Le BCB 2020-21

Yifei Lin BIO 2020-21

Celina Manley BMG/PSY 2019-20

Asir Savdharia BBC 2020-21

Iyad Sayed Issa BBC 2019-20

William Schlageter BIO/CHM/ESP 2019-20

Bradley Smith e5 BNS

Jianing Song BCD 2019-20

Walt and Bobbi Makous Prize

Honors the graduating senior who has made the most outstanding contribution to vision research at Rochester.

Evelyn Matei '21 BNS/CHM

Yongsoo Ra '20 BNS/CSC

O'Brien Book Award

The Suzanne J. O'Brien Book award is given to students who excelled both academically and in leadership roles in their first year here at the University. The students are chosen by a committee of Phi Beta Kappa officers. 4 of our graduating seniors received this award back in 2017:



**Kamel Awayda
Brandon Courteau
Shaopeiwen Luo
Rafal Mazur
Abigail Reinhart**



Contact Us

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Marianne Arcoraci

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Marcella Sherlock

Undergraduate Secretary

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ROCHESTER