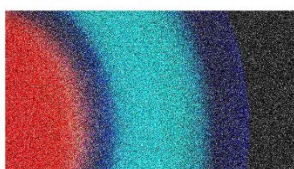
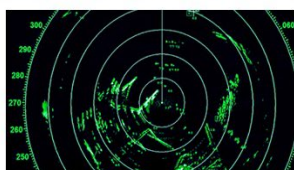
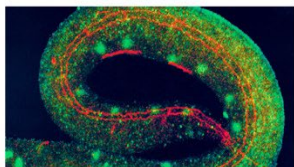




UMBC



CNMS Awards and Recognition Day 2020

COLLEGE of NATURAL and MATHEMATICAL SCIENCES

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A Special Message for the 2020 Program

Due to UMBC campus closures as a result of the COVID-19 pandemic, the 2020 CNMS Awards and Recognition Day in-person ceremony was cancelled. However, we still felt it was important to recognize the outstanding achievements of our faculty and students. We are honoring the awardees by publishing a digital version of the CNMS Awards and Recognition Day program on the College of Natural and Mathematical Sciences website (cnms.umbc.edu) and we will be sending certificates to the awardees once campus resources are open and available. Many departments under the college have also chosen to recognize their student honorees through a virtual ceremony. Congratulations to all our honorees and graduates!

We wish you all a safe, healthy, and happy summer!



A Message from the Dean



As Dean of the College of Natural and Mathematical Sciences, it is my pleasure to share with you our *CNMS Awards and Recognition* booklet, which acknowledges the deep and inextricable connection between teaching, mentoring, and student success. The bonds between faculty, staff and students are forged together under the pressures of a rigorous education. Whether in the classroom or research laboratory, dedicated and compassionate instructors ask our students to rise to the level of exceptionalism that each holds within. Through grit, determination and hard work, both faculty and students achieve greatness. Here, we honor their achievements in our *CNMS Awards and Recognition* booklet.

We also use this opportunity to recognize our world-class faculty and staff for their invaluable service in teaching, mentoring, and guiding our students. The college awards salute those faculty members who have shined in their continued pursuit of excellence for the benefit of our students, the college, and society.

Many of the undergraduates receiving awards today will be graduating at the end of the semester and will go on to study at graduate or professional schools, or to begin rewarding careers in the scientific workforce or maybe even start their own businesses. While we will miss them when they leave us, we are confident that they received an exceptional educational experience here at UMBC. We look forward to hearing about their many successes in the future, and we are proud that they will become the next generation of alumni of this special place called UMBC.

William R. LaCourse, Ph.D.

**2020 Carl S. Weber
Excellence in Teaching Award**

Dr. Terrance Worchesky



Dr. Worchesky is an associate professor and the associate chair in the Department of Physics. He received his Ph.D. in physics with honors from the Georgetown University in 1984. Dr. Worchesky was a research scientist at the Army Research Labs from 1976 through 1984, where he received the Hinman Award as the outstanding scientist of the year in 1983. In 1985, he joined Lockheed Martin Research Labs as a senior staff scientist and was recognized as the corporation's inventor of the year in 1994. Dr. Worchesky joined the physics faculty at UMBC in 1996. Since then, he has taught at all levels at UMBC, from introductory physics courses through upper-division undergraduate courses to graduate courses. He advises all first-year and transfer-student physics majors and he is active in mentoring student researchers at all levels, which includes several successful PhD students. Over the years, Dr. Worchesky's research has involved quantum layered semiconductor structures for use in electro-optic and thermo-electric devices.

About the Carl S. Weber Award



This award was established in 2006 in memory of Dr. Carl Weber, Assistant Professor Emeritus in the UMBC Department of Biological Sciences, as a tribute to his passion for classroom teaching. The annual award honors a faculty member at UMBC with exceptional dedication to teaching as demonstrated by his or her enthusiasm, up-to-date teaching materials, effective mentoring, community service in the teaching area, approachability, rigorous learning requirements, coherent teaching philosophy and inspirational teaching style.

2020 Faculty Excellence Honorees

Excellence in Teaching Award

Dr. Cynthia Wagner

Senior Lecturer

Department of Biological Sciences

Early Career Faculty Excellence Award

Dr. Bedřich Sousedik

Assistant Professor,

Department of Mathematics and Statistics

Mid-Career Faculty Excellence Award

Dr. Songon An

Associate Professor

Department of Chemistry and Biochemistry

Adjunct Faculty Excellence Award

Ms. Nandita Dasgupta

Adjunct Professor

Department of Mathematics and Statistics

Department of Marine Biotechnology
Department Chair: Dr. Yonathan Zohar

Outstanding Graduating PhD Student

Ryan McDonald

Department of Naval Science
Department Chair: Captain Troy Mong

Academic Excellence Award

Kepono Uyeunten
Jonathon Yang
Ethan Droneberger
James Gould
Stevie Clark
Thomas Morales

Physical Fitness Excellence Award

Jacob Topper
Michael Metler
Sophia Murillo
Carrington Scott

Leadership Excellence Award

Tyler Mowlds
Anna Sava
Jessica Berman
Ryan McDermott

Department of Physics

Department Chair: Dr. L. Michael Hayden

Outstanding Graduating Senior in Physics

**Adursh Iyer
Stuart Storm
Gabby Davis
Olivia Norman**

**Outstanding Graduate Teaching Assistant in
Physics for Fall 2019**

Nina Chowdhary

**Outstanding Undergraduate Learning Assistant
in Physics for Fall 2019**

Tobias Coombs

**Outstanding Undergraduate Learning Assistant
in Physics for Spring 2020**

Sarah Bowers

2019 – 2020 Undergraduate Research Award

**Omar French
Ellen Gulian
Rachel Morin**

**Donald N. Langenberg Undergraduate Research
Award**

**Jacob McCready
Benjamin Brown**

Department of Physics Continued

2018 Sigma Pi Sigma Inductees

Kassidy Kollmann

Omar French

Rachel Morin

Kaitlynn Lilly

David Storm

"Sigma Pi Sigma exists to honor outstanding scholarship in physics; to encourage interest in physics among students at all levels; to promote an attitude of service of its members towards their fellow students, colleagues, and the public; to provide a fellowship of persons who have excelled in physics. Sigma Pi Sigma's mission is not completed in the induction ceremony with the recognition of academic accomplishment. In the four dimensions of Honor, Encouragement, Service, and Fellowship, *the mission of Sigma Pi Sigma takes a longer view.*" sigmapisigma.org

Donald N. Langenberg Undergraduate Research Award



This award is an award based on a gift by UMBC president Freeman Hrabowski in honor of Dr. Donald Langenberg, the previous Chancellor of the University System of Maryland.

Department of Mathematics and Statistics

Department Chair: Dr. Animikh Biswas

**Dr. Bimal and Mrs. Suchandra Sinha
Endowment for Excellence in Statistics Research
(Undergrad)**

Sam Patterson

The Michele P. Hayes Scholarship

Destiny Lim

**Freeman A. Hrabowski Presidents' Advisory
Council Scholarship**

**Ben Hyatt
Gerson Kroiz**

Outstanding Graduate Research in Mathematics

**Janita Patwardhan
Kevin Williamson**

Outstanding Graduating Senior in Mathematics

**Ashani Jayasekera
Reed Lundegard
Tiffany Nguyen
Jeremy Rubin
Kathrine Saniel**

Department of Mathematics and Statistics Cont.

Outstanding Graduating Senior in Statistics

Jeremy Rubin

Outstanding Graduate Research in Statistics

Neha Agarwala

Yewon Kim

Michael Daniel Lucagbo

Mark Ramos

**Outstanding Graduate Teaching Assistant in the
Field of Mathematics and Statistics**

Zhou Feng

Pi Mu Epsilon

Pi Mu Epsilon is the national mathematics honor society. It was founded in 1914 and the UMBC chapter was accepted into the PME fraternity in 1988. To join, a student must complete one course in real analysis and have at least a 3.00 GPA with a 3.25 Math GPA.

Benjamin Hawkins

Morgan Vanderkei

Gerson Kroiz

Kaitlynn Lilly

Ashani Jayasekera

Adam May

Yosef Shaliehsuoc

Diae Mizou

Nicholas Potteiger

Emily Galen
Hunter Field
Lorenzo De Ocampo
Jim Kinter
Matt Cote
Eric Connor

Mu Sigma Rho

Mu Sigma Rho is the US national statistics honor society. Founded in 1968 at Iowa State University, it seeks to promote and encourage scholarly activity in statistics, and to recognize outstanding achievement (GPA of 3.4 or higher) among undergraduate and graduate students in Statistics.

No inductees this year

Dr. Bimal and Mrs. Suchandra Sinha



Endowment for Excellence in Statistics

This award was established in 2012 by Dr. Bimal and Mrs. Suchandra Sinha. The funds provide annual awards to excellent undergraduate and graduate students studying statistics.

The Michele P. Hayes Scholarship



This award was established in 1998 by Michele P. Hayes, Class of '85. The funds provide scholarship support to a student majoring in mathematics.

The Freeman A. Hrabowski President's Advisory Council Scholarship



This award was established in 2003 by the President's Advisory Council as an ongoing tribute to University President, Freeman A. Hrabowski. The funds provide scholarship support to an undergraduate mathematics major at UMBC.

**Department of
Chemistry and Biochemistry**
Department Chair: Dr. Zeev Rosenzweig

Chesapeake Chemist Award

Ewa Harazinska

John Mittino Award for Service

Sam Harris

**Outstanding Graduating Senior in Chemistry
(Sponsored by AICF)**

Anna Feerick

Outstanding Graduating Senior in Biochemistry

Barna Baierna

Alex Chin

The Donald Creighton Scholarship

Brittany Lafaver

The Satterfield-Bell Scholarship

Issac Chaudry

Sara Tahir

The Vitullo Award for Undergraduate Research

Gabrielle Pozza

The William C. & Gregory O. Faith Scholarship

Logan Lineburg

Department of Chemistry and Biochemistry Cont.

Faculty Award for Excellence in Biochemistry

**Riki Egoshi
Darin Gilchrist**

Faculty Award for Excellence in Chemistry

David Sachs

**Outstanding Graduate Teaching Assistant
Awards**

**Ciara Pitman
Tohid Baradaran Kayyal
Denise N. Williams-Harris**

Outstanding Graduate Research Award

**Giraso Keza Monia Kabandana
Alexandrea Sestok**

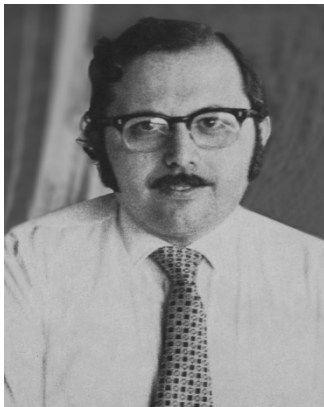
**American Institute of Chemists Foundation
(AICF)**

This foundation has awarded a student association membership, subscription to its peer-reviewed journal, and other benefits to an outstanding UMBC undergraduate chemist annually for many years.

Chesapeake Chemist Award

Sponsored by the Maryland section of the American Chemical Society and awarded to an outstanding chemistry or biochemistry student.

Victor P. Vitullo and John R. Mittino Memorial Fund

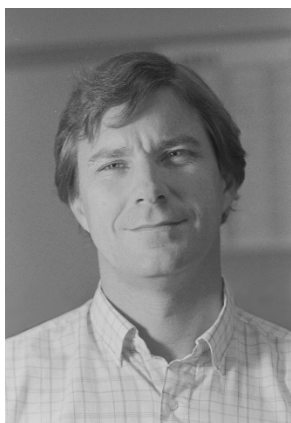


This memorial endowment fund for the Department of Chemistry and Biochemistry at UMBC was created in 2001. This fund honors, in perpetuity, the memory and legacy of Dr. Victor P. Vitullo, Professor of Chemistry, and the memory of John R. Mittino, a student studying Chemistry/Biochemistry who worked in the department, who died in an untimely accident.

Dr. Victor P. Vitullo

In addition to providing annual awards to undergraduate and/or graduate students, the fund also supports seminar speakers and other appropriate educational activities in the fields of Chemistry and Biochemistry at UMBC.

The Donald Creighton Scholarship



This award was established by Dr. Creighton's widow, Arlene, and his family and friends following Don's passing in 2006. Professor Creighton began working at UMBC in 1975 and his research was internationally recognized as being at the forefront of enzymology. This award supports a student studying chemistry or biochemistry.

The Satterfield-Bell Scholarship



Beginning in 2002, UMBC Alumna Dr. Lisë Satterfield has provided an annual scholarship to an outstanding junior undergraduate chemistry student at UMBC who has research experience.

Dr. Lisë Satterfield, Class of '84

The William C. and Gregory O. Faith Scholarship



Left to right: Gregory and William Faith with parents, Florence and Lawrence Faith

This memorial endowment was established in June 1992 by friends and family of William C. and Gregory O. Faith; twin brothers who graduated from UMBC in 1973. This fund supports annual scholarships that are awarded to students at UMBC who are interested in Biological Sciences, Chemistry and Biochemistry and who intend to pursue careers in health.

The Biochemistry and Molecular Biology major at UMBC is jointly administered by the Departments of Biological Sciences & Chemistry and Biochemistry.

**Department of
Biological Sciences**

Department Chair: Dr. Philip Farabaugh

**2019 Outstanding Graduate Teaching Assistant
Award**

Janine Antalfy

Departmental Service Award

Jenni Kelleher

Faculty Award for Excellence in Bioinformatics

Anna Yaschenko

**Faculty Award for Excellence in Biological
Sciences**

Kristina Atanasoff

Robin Bailey

Zak Newberry

John H. and Althea Griner Scholarship

Eden Beyene

Jeanelle Mae Quiambao

Savannah Pearson

D’Juan Moreland

Roger Michael Davis Endowed Scholarship

David Waldron

Department of Biological Sciences Continued

Sandoz Undergraduate Teaching Award

Neeraj Ochaney

The Otto and Helen Musall Endowed Award

**Zachary Tolliver
Mackenzie Jones
Simi Bakhshi**

**Thomas V. Marsho & Martin Schwartz Memorial
Fund**

**Menelik Demissie
Yaw Owusu-Boaitey
Achalefac Akem
Nate Felbinger**

**Outstanding Graduating Senior in Biological
Sciences**

**Corinne Travis
Tarek Antar
Isabella Facchine
Rosemary Do**

Department of Biological Sciences Continued

Biological Sciences Departmental Honors

Students who receive Departmental Honors in Research in the Biological Sciences have demonstrated a dedication to research by working in a lab on campus for at least 3 semesters, formally communicating their research in a public forum, and maintaining a high GPA.

Michael LaScola
Afia Osei-Ntansah
Nguyet Le
Shehar Yar Awan
Robin Bailey

John H. Sr. and Althea Griner Scholarship Fund

Established in 1987, the fund was started by Dr. Winston Griner, Class of '74, in honor/memory of his parents. This is an annual award given to outstanding first year undergraduates who are planning to pursue biological sciences as a major and who have completed their first year of school at UMBC with demonstrated commitment to the advancement of minorities in the sciences.

Roger Michael Davis Endowed Scholarship



Established in 1998 by Gloria Y. Davis Furrer in memory of her brother, Roger Michael Davis, who received his Ph.D. from UMBC in 1986 and taught Introductory Biology and Introductory Biology Lab at UMBC for many years. Annual scholarships are awarded to full-time undergraduate students at UMBC who demonstrate promise and intend to major in the Biological Sciences.

Sandoz Undergraduate Teaching Award



Established in 2012, this undergraduate teaching award honors James Sandoz, who recently retired after serving as a lecturer and senior lecturer in the Department of Biological Sciences from 1984 through 2011. Mr. Sandoz taught many courses including Microbiology, Genetics Lab and Phage Hunters and remains one of the Department's most beloved instructors. This award will be given annually to an undergraduate teaching assistant (TA), usually a senior, who best demonstrates the hard work, positive spirit, and student caring exemplified by Jim Sandoz.

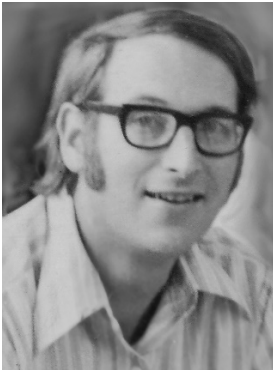
The Otto and Helen Musall Endowment



Established in 2001 by Panamerican Consulting International Limited, Dr. John Kloetzel, Associate Professor Emeritus, was the nephew of the late Otto and Helen Musall. This scholarship was established after Dr. Kloetzel's

retirement from UMBC's Department of Biological Sciences to support select students majoring in the biological sciences.

Thomas V. Marsho & Martin Schwartz Memorial Fund



Thomas V. Marsho



Martin Schwartz

Originally established in 1983 as the Thomas V. Marsho Memorial Fund, awards were to honor the memory of Dr. Thomas V. Marsho, Professor of Biological Sciences. In September 1994, the fund was revised and renamed to honor in perpetuity the memory and legacies Dr. Thomas V. Marsho and Dr. Martin Schwartz, Chairperson and Professor in Biological Sciences. In addition to annual

awards to top undergraduate and graduate students, the fund supports seminar speakers and other appropriate educational activities in the field of Biological Sciences at UMBC.

The Biochemistry and Molecular Biology major at UMBC is jointly administered by the Departments of Biological Sciences & Chemistry and Biochemistry.

The Richard E. Wolf, Jr. Scholarship Award

Natalie Roberts

Established in 2000 by Dr. and Mrs. Richard E. Wolf, Sr. in honor of their son, Professor Richard E. Wolf, Jr., to recognize exceptional dissertation research that has made significant contributions to disciplines within the biological sciences. *This award will be presented at the GSA Awards.*

College of Natural and Mathematical Sciences

CNMS Dean: Dr. William R. LaCourse

Arnold and Marianne Ostrand Endowed Award for Students

Not awarded this year

Arnold and Marianne Ostrand Endowed Award for Students



This award was established in 2019 from an anonymous donor. It provides support to undergraduate and/or graduate students in UMBC's College of Natural and Mathematical Sciences to attend national or international scientific conferences.

Phi Beta Kappa

Founded at the College of William and Mary in 1776, Phi Beta Kappa is the oldest and, by general agreement, the most prestigious academic honor society in the country. As potential candidates for the degree *magna cum laude* and having pursued a broad curriculum of liberal studies well beyond minimal institutional requirements, the following CNMS majors are among a select group of students invited to join Phi Beta Kappa by the Eta Chapter of Maryland.

Congratulations to the following new invitees with majors in the College of Natural and Mathematical Sciences.

Kristina Atanasoff
Hannah Bashar
Samar Behdin
Miskir Belayneh
Sarah Brewer
Haider Butt
Emily Cannistraci
Saya
Daremipouran
Beau Dickens
Anna Ecker
Isabella Facchine
Grace Ghinger
Khiem Han
Megan Harper
Sam Harris
Sophia Hu
Ryan Jahnige

Thomas Kiley
Priya Krishna
Clarisse Lukban
Reed Lundegard
Shafin Malik
Simon Maxwell
Josh McCarter
Darius McKoy
Maggie Meesuk
Pat Michael
Rachel Morin
Zak Newberry
Eddie Okojie
Shirin Parsa
Hannah
Ramcharan
Aniruddha Rao
Ilia Rattsev

David Sachs
Mitali Sarkar
David Storm
Sara Tahir
Charles Tibbels

Corinne Travis
Kim Vuong
Sierra Wallace
Alyssa Walter
Samuel Winfrey

CNMS Scholars

This prestigious program provides scholarships, mentorship, and support to individuals interested in the advancement of women in the sciences and engineering to increase student persistence and advancement in academic majors where women are still underrepresented including: mathematics/statistics, physics, chemistry/biochemistry, mechanical engineering, and chemical/biochemical engineering.

2019-2020 CNMS Scholars

Ruth Bahl (2019 Graduate)
Laina Colony (2020 Graduate)
Jada Damond (2020 Graduate)
Alida Hartwell (2020 Graduate)
Blair Landon (2020 Graduate)
Lorin Loftus
Ashley Mitchell (2020 Graduate)
Olivia Norman (2020 Graduate)

***Awardee Biographies (Alphabetical Order
by Last Name)***

Neha Agarwala I am currently a PhD candidate in the Department of Statistics and Mathematics. My research interest is based on solving scientific statistical problems that can help improve public health. I recently published an article on Medium about existing COVID-19 projection models that plays an important role in public health policymaking. My future goal is to work on impactful statistical discoveries in the field of public health.

Achalefac Akem My name is Achalefac and I am a freshman Biology major at UMBC. I was placed on the President's List my first semester at UMBC. I am a member of SGA, African Students Association, and Phi Delta Epsilon Pre-Medical Fraternity. Post-UMBC I hope to either obtain a MD or MD-PHD and hope to further research concerning neurodegenerative diseases.

Janine Antalfy I am a Ph.D. candidate in the Department of Biological Sciences. My research in the Omland Lab focuses on the conservation biology of the Bahama Oriole. I'm interested in understanding population structure, genetic diversity, and the distribution of ecosystems important to the Bahama Oriole so that we can inform conservation management. At UMBC I have the opportunity to build a profile of publications and technical skills that will award me a future position to make valuable contributions in conservation at the research level, and

have the benefit of teaching students what I consider to be a fascinating research field. Thank you for the recognition!

Tarek Antar I am graduating with majors in biology and psychology after being on the Dean's list for 8 semesters. I was granted funding for my own research project, which was presented at URCAD and published in the UMBC Review. After graduation, I plan to continue research prior to pursuing a medical degree.

Kristina Atanasoff This spring, I will be graduating with a degree in biological sciences, an English literature minor, and a certificate in Russian studies. After I graduate, I will be pursuing a PhD in biomedical sciences, with a focus in virology, at the Icahn School of Medicine at Mount Sinai.

Barna Baierna I am an international student and I transferred from Howard Community College. I am a senior in biochemistry, and I am a UMBC Merit scholarship recipient. I am also a member of the Phi Kappa Phi honors society. I joined Dr. Jeffrey Gardner's lab and received the Undergraduate Research Award. My research project won the Phi Kappa Phi Undergraduate Research Award. After graduating, I will continue on to graduate school. My goal is to work as a researcher in a biotechnology company.

Robin Bailey I transferred from Howard Community College and joined the MARC U*STAR program at UMBC. I became an undergraduate

researcher in Dr. Phyllis Robinson's laboratory. I presented my research at the 2018 Annual Biomedical Research Conference for Minority Students and won an oral presentation award. I have officially committed to pursuing my PhD in Cellular and Molecular Biology at the University of Pennsylvania's Perelman School of Medicine. My PhD will focus on gene therapy and vaccines. My goal is to become an academic researcher that investigates molecular mechanisms of disease in search of treatments for medical conditions.

Simi Bakhshi After completing my bachelor's degree, I plan to pursue a master's degree in education while seeking employment in the education field. My preferred demographic would be highschool students. I chose Biology Education as my major because I appreciate what the science field has to offer to young inquiring minds. Teaching, I believe is the method of engaging these young minds for the bigger world that surrounds them. The wealth of knowledge and experience that I have obtained while attending UMBC will help in future prospects of my career and educational goals.

Tohid Baradaran Kayyal My research experience is regarding the design of nanomaterials for different applications: adsorbents, coatings and nanocarriers for drug delivery. I published 6 articles before starting my PhD studies and now my research focuses on gold nanoparticle-based drug delivery platforms.

Eden Beyene I am currently a biology major at UMBC and aspire to obtain an MD/PhD after my undergraduate education. My career goal is to become a physician-scientist and conduct research in the neuroscience field. In addition to receiving the Biology Department Award, I also received the Winston Anthony McKenzie Endowment Scholarship Fund this year. This summer, I will virtually participate in the Summer Honors Undergraduate Research Program at Harvard University. I have previous research experience working in the laboratory of UMBC professor Dr. Michael Summers, where I studied the replication cycle of HIV.

Sarah Bowers I plan to graduate from UMBC with a BS in Physics. After undergrad, I want to enter a graduate program and earn my PhD in an area of physics. With this degree, I hope to conduct research and teach in academia.

Benjamin Brown I just completed my sophomore year, pursuing a double degree in physics and computer science. Next semester, I will be continuing in my undergraduate research with Dr. Hayden as well as working as an Engineering Intern for Jacobs Engineering.

Issac Chaudry I am an undergraduate researcher in Dr. Michael Summers' structural biology lab where my group and I focus on characterizing the HIV viral genome, and our findings were published in Science Magazine earlier this year. I am currently applying to MD/PhD programs to matriculate in to in Fall 2021.

Alexander Chin Accelerated academic preparation and intentional community engagement have been my dual foci for preparation in professional disciplines. With the support of my parents and professors at UMBC, I have had the privilege of completing the Biochemistry B.S. degree in 3 years and am pursuing a Biology M.S. degree with plans to attend medical school.

Nimarta Chowdhary I hope to continue with my journey in Physics!

Stevie Clark My life is but a service to those who need it most. I intend to translate the academic success sustained during my time here at UMBC into service for communities and people who need it the most.

Tobias Coombs I work in the lab of Dr. Erin Lavik at UMBC. During the summer of 2018 I worked in the lab of Dr. Tyler Jacks in the Koch Institute at MIT as part of the MSRP Bio program. I earned a presentation award at the Annual Biomedical Research Conference for Minority Scholars (ABRCMS) in 2018. I plan to pursue a PhD in cancer biology/immunology as part of a career in research

Gabrielle Davis I've pursued my research interests as part of the Atmospheric Lidar Group. I have also had the chance to be part of summer research programs at the University of Chicago, the University of Pittsburgh, and the University of Pennsylvania, researching in the fields of geophysics, engineering, and materials science respectively. I had the honor of

being able to present my research at the Leadership Alliance National Symposium 2017, the 2020 American Meteorological Society Student Conference and UMBC's Undergraduate Research and Creative Achievement Day 2020. Going forward, I hope to continue my education and earn a graduate degree in applied physics or an engineering field.

Rosemary Do (Thao Do) I majored in Bio with a minor in Psych. This fall, I will attend UPenn to pursue a degree in dental medicine. I desire to bridge the disconnect between medicine and dentistry using my knowledge in health sciences and technology for the betterment of my communities. UMBC will always be a part of me in this journey!

Ethan Droneberger I am a freshman taking a rigorous course load for a degree in Mechanical Engineering. I set high expectations in Naval Science, striving to be a leader by supporting my fellow midshipmen. As an NROTC midshipman, I have goals of becoming a Naval Officer.

Riki Egoshi I am a senior Biochemistry and Molecular Biology student. As a URA Scholar, I have worked in Dr. Hua Lu's lab researching the relationship between circadian rhythm and plant defense. Next year, I am attending the University of Maryland, Baltimore and starting on a PhD in Pharmaceutical Sciences

Isabella Facchine I've pursued Biology at UMBC with the intent to teach in Baltimore City. As a Sherman Scholar, I've learned to integrate the

content of biology to develop as a culturally responsive educator. I've also been awarded the CNMS Helen & Otto Musall Award and the CHASS Outstanding Secondary Student Award.

Anna Feerick For 2 years, I have been an undergraduate researcher under the purview of Dr. Lee Blaney. I presented at several local and national conferences and am a co-author on a scientific paper. I was one of the co-leaders of Arbutus achievers, and a member of the chemistry and biochemistry preparations lab.

Nathaniel Felbinger While attending UMBC as a Provost Scholar I attained academic honors in seven out of eight semesters, and have recently been privileged to receive the Marsho Schwartz Scholarship. I am pursuing a M.S. in biochemistry at Loyola University Chicago with hopes of eventually entering into a MD/PhD program where I will pursue clinical research in neuroscience.

Zhou Feng As a Ph.D. student in Statistics, my research explores innovative insights and methodologies on causal inference using real world data. I have published one paper, given two contributed talks in international conferences, and completed two internships at the FDA. I plan to graduate soon and hope to contribute my abilities to improve public health.

Omar French For nearly 30 months, I have worked under Dr. Meyer in the pursuit to understand the mechanism behind astrophysical jets. In the Summer

of 2020, I will be interning at the Princeton Plasma Physics Laboratory. I hope to pursue theoretical and computational physics in graduate school and beyond!

Darin Gilchrist As a Meyerhoff, HHMI, and MARC U*STAR scholar, I have received a PKP Undergraduate Research Award, a Departmental Faith Award, completed a summer internship at Harvard Medical School in addition to my three years of research at UMBC, and presented my research at 10 conferences and symposiums. After graduation, I will be pursuing my MD/PhD at the University of Maryland School of Medicine.

James Gould I plan to obtain my Mechanical Engineering Bachelor's Degree and commission into the United States Marine Corps as a Second Lieutenant.

Ewa Harazinska In my undergraduate program I have been working on synthesis of quantum dots (CdTe, ZnSe, and CIS) as a member of Rosenzweig lab. I will be joining Chemistry PhD program at JHU in Fall 2020.

Samantha Harris I served as a learning assistant for general chemistry and then transitioned to a teaching assistant before I joined the Chemistry Tutorial Center. I performed research in Dr. Aaron Smith's lab on bacterial iron transport. I participated in a summer undergraduate research fellowship physician scientist program at SUNY Upstate Medical University in Syracuse, NY. I also presented my

findings at the SURF Research Symposium poster session. After graduation, I am transitioning to research program coordinator, during my gap year before medical school. My achievements at UMBC have opened doors for me and have set me closer to reaching my career goals.

Benjamin Hyatt I am a junior Honors College scholar majoring in mathematics with minors in physics and philosophy. While at UMBC, I have interned at the JHU Applied Physics Laboratory and, as a URA scholar, I have co-authored a published paper and wrote a thesis pertaining to research in mathematics. After graduation, I intend to pursue a PhD in applied mathematics.

Adurshiva Iyer I am a graduating senior at UMBC majoring in Physics and minoring in Astrophysics. My undergraduate research in the Physics Department focused on gamma-ray observations of the extragalactic jets emitted from the centers of Active Galactic Nuclei. My advisor was Dr. Eileen T. Meyer, and my work utilized the Fermi Gamma-ray Space Telescope operated by NASA. This work led to one publication in the *Astrophysical Journal Letters*, along with three conference presentations. I am currently exploring other career opportunities in astronomy research upon graduation, and will apply to graduate school in the future.

Ashani Jayasekera I am graduating with a Bachelor of Science degree in Mathematics and

minors in Statistics and Psychology. During my time at UMBC, I was an undergraduate Teaching Assistant for the Math Department for MATH 150 and MATH 151 classes. I was an undergraduate research assistant in the Pediatric Psychology Lab with Dr. Lynnnda Dahlquist. After graduation, I will be attending the University of Maryland, College Park to pursue a Masters of Arts degree in Evaluation, Measurement, and Statistics (EDMS).

Mackenzie Jones Throughout my time here at UMBC I have excelled in my course work with a passion for biology and education. I am the Phi Director for Phi Mu Fraternity for Women, Phi Gamma Chapter and I look forward to achieving a master's degree in educational leadership following a career in education as a high school biology teacher in hopes of inspiring future generations of scientists and life long researchers.

Monia Kabandana Monia Kabandana is 2nd year graduate student. She obtained her B.S. in Biochemistry & Molecular Biology at UMBC in 2018. In the same year, she joined Dr. Chen's lab in the chemistry and biochemistry department. Her research is aimed at 1) designing and developing a 3D printed microfluidic system for quantitating indole, a small molecule secreted by biofilms, and 2) integrating electrospinning to mimic in vivo environments for investigation of the roles and mechanisms of indole interactions in the dysfunction of macrophage-led inflammatory responses. When

she graduates from her Ph.D., she would like to work in a pharmaceutical company.

Jennifer Kelleher I am graduating with a degree in Biological Sciences. I was the president of the Biology Council of Majors and Pre-Vet Society at UMBC during the 2019-2020 school year. I will be attending the Virginia-Maryland College of Veterinary Medicine in Fall 2020 for my Doctorate of Veterinary Medicine.

Yewon Kim I am a research assistant in the Division of Cardiovascular Medicine at the University of Maryland School of Medicine. Our group focus on applying Machine Learning techniques to UK Biobank database and to discover important biomedical insights. Based on this experience, I would like to further study of Genetic Statistics.

Kassidy Kollmann I study active galactic nuclei (AGN) in Dr. Eileen Meyer's lab at UMBC. I also studied AGN and their host galaxies at Yale University. I have co-authored three research papers. This summer, I will conduct cosmology research at JHU. After graduation, I will pursue my PhD in particle astrophysics.

Gerson Kroiz I am a rising junior Honors College member, URA scholar, and Meyerhoff affiliate. My pursuit of a Ph.D. in applied mathematics stems from my publications, coursework, teaching experiences, and research opportunities at UMBC, NIST, and UCLA.

Brittany Lafaver I am attending the University of Missouri in the fall to pursue a PhD in biochemistry. I hope to one day be a professor.

Michael LaScola I will be pursuing my Masters in Biochemical Engineering at UMBC.

Nguyet Le I am where I am today because of the tremendous academic support and research experiences I have received while at UMBC. In the fall, I will be pursuing a PhD in Human Genetics at the Johns Hopkins University, School of Medicine.

Kaitlynn Lilly Last summer I did an REU at the Institute for Astronomy at the University of Hawaii at Manoa under Dr. David Sanders. I do sustained research on numerically solving PDE's on campus with Dr. Justin Webster and will be doing similar work this summer with Dr. Jason Howell at Carnegie Mellon University. I hope to attend graduate school in mathematical physics.

Destiny Lim I am a junior pursuing a double degree in Computer Science and Mathematics. Upon completing my bachelor's degree, I plan to go into industry mainly using my Computer Science degree and hopefully attain my master's degree after working in the field for a few years.

Logan Lineburg I am a sophomore Biochemistry & Molecular Biology major. I work in the Bieberich Laboratory researching prostate cancer with mouse models utilizing Myc activation and Pten loss. I hope

to apply to M.D./Ph.D. programs in order to teach and practice medicine in the future.

Michael Daniel Lucagbo I have taught at UMBC, where I'm currently a PhD Statistics candidate, working on reference intervals in laboratory medicine for my doctoral research with Thomas Mathew. I am also an ORISE Fellow at the US FDA. I earned my BS and MS in Statistics from the University of the Philippines. My career goals include being a professor and researcher in statistics.

Reed Lundegard During my time at UMBC, I was able to take classes in a wide range of topics, from mathematics to economics to computer science. I enjoyed working as a teaching assistant for a few of these classes. Also, I was given the opportunity to apply this knowledge during internships at the University of Chicago and the Federal Reserve Board. After graduation, I hope to work for a few years while I contemplate going to grad school.

Ryan McDermott Prior to this award, I received a Certificate of Superior Academic Performance from the NROTC unit. I am a History major with a minor in Naval Science. After I graduate, I hope to commission into the Marine Corps.

Ryan McDonald While attending UMBC I was generously supported by the NIH Chemistry/Biology Interface Program and the Ratcliffe Environmental Entrepreneur Fellowship, which afforded me the opportunity publish numerous scientific articles and

attended multiple national and international conferences.

Michael Metler I will be graduating this semester with a B.S in Computer Science, and commissioning to USS Ross as a Surface Warfare Officer in the US Navy. My career goals are to proudly serve my country while travelling the world, and becoming a successful leader and officer.

D'Juan Moreland I am a Meyerhoff and HHMI scholar. I am majoring in Biology B.S. and Music Composition and would like to attend graduate school for behavioral biology. For my future career I would like to conduct research behavioral biology in animals and humans to further understanding of behavioral mechanisms in the brain.

Rachel Morin I am a Photography and Physics Major and this is my 5th year at UMBC. I have been working in Dr. Matthew Pelton's Laboratory for Optical Studies of Nanoscale Physics for two years, and I plan on going to graduate school. I have also worked with Dr. Markos Georganopoulos in creating photographic animations to teach high energy astrophysics.

Tyler Mowlds UMBC allowed me to expand my global perspectives through study with engaging professors, an semester abroad in Paris, and studying alongside a diverse student body. I will carry my experiences from UMBC with me as I pursue my career in aviation with the United States Marine Corps.

Sophia Murillo I am an Information Systems major and will be a first-generation college graduate in Spring 2021. As a Naval Reserve Officer Training Corps Scholarship recipient, I will commission as a Naval Officer upon graduation. I will then move back to my home state, California, to start my career in surface warfare.

Zakary Newberry While at UMBC, I have worked as an undergraduate researcher in the lab of Dr. Charles Bieberich, and have been a Teaching Assistant for Introductory Biology and a Learning Assistant for Introductory Chemistry. After graduation, I will attend Penn State College of Medicine to study Family Medicine.

Tiffany Nguyen I am graduating with degrees in mathematics and biology and as a member of the Honors College. After graduation, I will be working in machine learning research at the Johns Hopkins University Applied Physics Lab. I also plan on attending graduate school to continue my education in mathematics.

Olivia Norman For the past two years I have worked as a research assistant for Dr. Zhibo Zhang of the Physics department at UMBC investigating aerosols and clouds through simulation and using observational data. I have been a member of the CNMS Scholars Program at UMBC since September 2018. In Fall 2020 I will be starting graduate school at MIT working towards getting my PhD in Atmospheric Sciences. After graduating I hope to

work with an organization committed to researching, understanding, and mitigating climate change.

Neeraj Ochaney I am grateful for my time as a TA for genetics and cell biology. I enjoyed my time in research working with great mentors like Dr. Gabrawy and Dr. Leips on different projects and presenting my work at URCAD and SURF. I also enjoyed giving back to my community as a volunteer. I plan to pursue my dream of becoming a physician by attending medical school next fall.

Afia Osei-Ntansah My name is Afia Osei-Ntansah and I am a Biology major at UMBC. I am a part of the Meyerhoff Scholars, MARC U STAR, and HHMI Programs which are all geared towards increasing diversity in STEM. While one chapter is drawing to a close, I am excited and grateful to continue my education at NYU as a part of their Medical Scientist Training Program. In these next steps, I will prepare for a career as a research physician, where I can combine my interests in research and medicine.

Yaw Owusu-Boaitey I am an M29 Meyerhoff Scholar and member of Phi Kappa Phi and the UMBC Honors College. I have conducted summer research at Colorado State University and Harvard Medical School as well as research in the Starz-Gaiano Laboratory in the Department of Biological Sciences at UMBC. I intend to pursue an MD-PhD with a research focus in molecular genetics.

Samuel Patterson I'm a Math/Econ/Stat triple major intending to get 3 degrees. In pursuit of a

career in research, I am planning to apply to PhD programs this fall. I'm hoping that my past experiences of research at Harvard & UChicago and my next experience with the NBER will make me an attractive candidate.

Janita Patwardhan I am proud to be graduating this spring with my Ph.D. in Applied Mathematics. My research focused on using mathematical models to study pancreatic beta cells. My goal is to continue using math to assist in the understanding of biological systems with a focus on drug discovery and development.

Savannah Pearson My academic achievements include being a Meyerhoff Scholar at UMBC and being a UNCF STEM Scholar. These programs are both designed to unite and support minorities pursuing education and careers in STEM. My academic goal is to earn a PhD. in neuroscience and conduct research on drug addiction.

Ciara Pitman I am a 3rd-year analytical chemistry Ph.D. candidate in Dr. William LaCourse's Lab. I have presented at many national conferences and currently have a publication under review. After the completion of my degree, I hope to play an instrumental role in the analytical research field.

Gabrielle Pozza During my time at UMBC, I participated in polymer and physical chemistry undergraduate research under Dr. Lisa Kelly and was awarded the Vitullo Award for Undergraduate Research. With my Chemistry BS, I intend to

continue research with Dr. Kelly before moving on to graduate school in pursuit of a PhD in a chemistry field.

Jeanelle Mae Quiambao After my first year at UMBC, I found my passion in Biology. I am a Biology and French double major with a Psychology minor. I hope to participate in research and internships to learn more about Biology. Afterwards, I plan to attend medical and graduate school to pursue pediatrics and research. I am honored to have been selected for this award!

Mark Louie Ramos I am a PhD candidate currently on my third year in the Statistics program. I won 1st place in last year's poster presentation competition at the 13th UMBC Probability and Statistics Day. I recently published a short article on deaths from COVID-19 that occurred prior to testing confirmation in the Philippines. My research focus is on multiple testing and I am currently working with my adviser, Dr. DoHwan Park on some projects in this area. After I finish my PhD, I intend to resume my duties as a tenured faculty member at the Department of Mathematics and Physics in the University of Santo Tomas and researcher at the Thomas Aquinas Research Center.

Natalie Roberts I completed my PhD in Biology in 2019, studying the role of male preferences in speciation. My work resulted in four first-author publications in peer-reviewed journals. I also actively mentored more junior students, co-authoring two

papers with undergraduates in the lab. I am currently working as a postdoctoral fellow in animal behavior research.

Jeremy Rubin I am a statistics and mathematics double major, as well as member of the Honors College, Meyerhoff Scholars, and MARC U*STAR programs. I also received the NSF Graduate Research Fellowship. After graduation, I will be pursuing a Ph.D. in Biostatistics at the University of Pennsylvania.

David Sachs As an undergraduate I began researching for Dr. Narsingh Singh on mid infrared detector materials in the summer of my freshmen year. I was able to present my research on mid IR detector materials multiple times at SPIE. I was a tutor at the chemistry tutorial center working for Dr. Gierasch, as well as a learning assistant for CHEM 101 for Dr. Carpenter. I researched for Dr. Singh, Dr. Kelly, and Dr. Arnold at UMBC. After graduation I will be attending the California Institute of Technology pursuing a Ph.D in Chemistry/Chemical Physics. I hope to research in ultrafast spectroscopy. After Caltech I hope to have a career in academia.

Kathrine Saniel I have been an undergraduate TA for the past 2 years and enjoy helping students understand and even like math. I also am a business operations intern at the University. In the fall, I will be studying at Virginia Tech in their Applied Math PhD program. I am excited for the future!

Stuart David Storm My involvement in the research of Prof. Matthew Pelton and Dr. Haixu Leng culminated in my first publication. I also performed research as an intern at the Applied Physics Laboratory under the supervision of Mr. Will Geckle. I intend to continue my education in physics at Vanderbilt University.

Sara Tahir I am a member of UMBC's honors college, and I have worked in Dr. Bradley Arnold's physical chemistry lab for two years, focusing heavily on projects involving Raman spectroscopy for the army. Additionally, I will be interning at Apple this summer in the core media team.

Zachary Tolliver I always want to leave people better off than when they first interacted with me. This is the mindset I've accepted entering UMBC, and will be to my eventual medical career. I plan to become a pathologist, studying diseases, and educate those who need to understand the world we live in.

Jacob Topper To be completely honest, I have not done anything extraordinary academically to the point of needing recognition, but I am extremely grateful for the recognition. I am a paramedic student and am currently prepping for a national registry certification as a paramedic. I am also a part of the ROTC unit on campus and will be commissioning very shortly as an officer into the United States Navy. I'm looking forward to keeping an open mind about my future and finding a career path that I can look

back on and say that I got the most out of my time in service.

Corinne Travis During my time as a student at UMBC, I worked hard not only inside the classroom but outside as well. I enjoyed participating in volunteer and philanthropy work with Phi Delta Epsilon MD Alpha chapter and the UMBC Pre-Physician Assistant society, interning at a ObGyn office, shadowing an orthopedic physician assistant, and working as a physical therapy aide. I plan to explore more fields in medicine during my gap year, and then further my education in 2021 by attending graduate school and receiving my Masters in Physician Assistant studies.

Kepono Uyeunten I have received the Award for Superior Academic Performance and the Award for Midshipman of the Semester from the UMBC NROTC Battalion. I aspire to attend the Naval War College in the future along with serving 20 years in the world's finest Navy!

David Waldron I am entering my senior year as a Biochemistry B.S. and Psychology B.A. dual degree. Throughout this I have worked in a local ER as a medical scribe, and this past year I have joined Dr. Starz-Gaiano's research lab. I am currently applying to medical schools with hopes to matriculate in Fall 2021.

Denise N. Williams-Harris I'm a Ph.D. candidate conducting research to elucidate mechanisms of interaction between quantum dots

and bacteria, in order to support the development of antibacterial nanotherapies. At UMBC, I have published 5 peer-reviewed publications on nanomaterials and 2 on graduate education. I have also had the honor of being a chemistry teaching assistant and a PROMISE team member.

Kevin Williamson I study the numerical solution of a system of equations modelling porous media flow. I have published a paper on a posteriori error estimation and adaptive mesh refinement for these equations, and I am finishing up a paper on reduced basis methods applied to stochastic simulation.

Jonathan Yang I plan on excelling in my academic pursuits, maintaining and eventually surpassing my goals to earn my degree and commission as a United States Naval Officer

Shehar Yar Awan I have had the opportunity to be a part of the STEM BUILD Program. I gained research experience my first semester and received 1st place for my poster presentation at the Fall 2018 URS. I have worked in Dr. Erin Green's Lab. This past year I attained the URA Award, gained funding and presented my research at the virtual URCAD this past spring. I have served as an LA for Organic Chemistry and a TA for Animal Physiology. While my time at UMBC has come to a close, it will most definitely not be forgotten. The skillset that I have learned, will help carve my path as a future Dentist with a focus on research involving novel probiotic treatments against periodontal disease.

Anna Yaschenko I am graduating with a dual degree in Computer Science and Bioinformatics. In the fall, I will be attending NC State University to pursue a Ph.D. in Plant Biology. I hope to go on to work in industry or government studying how to improve disease resistance and yield in commercial crops.

Biographies from the following awardees were unavailable at the time of posting:

Jessica Berman

Eden Beyene

Menelik Demissie

Ellen Gulian

Jacob McCready

Thomas Morales

Anna Sava

Carrington Scott

Alexandrea Sestok