



## The Ninth Annual Student Recognition Day

*May 2, 2014*

*3:30 p.m.*

*University Ballroom*

*Dr. William R. LaCourse, Dean*

*COLLEGE of NATURAL and  
MATHEMATICAL SCIENCES*

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# The Ninth Annual Student Recognition Day

3:30 p.m. **Welcome**

*Dr. William R. LaCourse, Dean*

3:35 p.m. **Special Award Sponsors**

*Greg Simmons, Office of Institutional Advancement*

3:40 p.m. **2014 Carl Weber Award for Excellence in Teaching**

*Presentation to and by Sarah Leupen, Senior Lecturer  
in the Department of Biological Sciences.*

3:50 p.m. **Introduction of Chairs Presenting Student Awards**

*Dr. Yonathan Zohar*

**Department of Physics**

*Dr. Michael Hayden*

**Department of Mathematics and Statistics**

*Dr. Nagaraj Neerchal*

**Department of Chemistry and Biochemistry**

*Dr. Zeev Rosenzweig*

**Department of Biological Sciences**

*Dr. Philip Farabaugh*

4:30 p.m. **Recognition of Special Groups and Closing Remarks**

*Dr. William R. LaCourse, Dean*

*Reception*

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## Dean's Message

As Dean of the College of Natural and Mathematical Sciences, I welcome you to our ninth annual Student Recognition Day.

Student Recognition Day is a special event in the life of our College when we gather to celebrate and honor the achievements of our graduate and undergraduate students. We also use this opportunity to proudly recognize our exceptional faculty and staff for their invaluable service in teaching, mentoring and guiding our students. Family and friends play an important role in supporting the success of our students and deserve our thanks.

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 jobs in the workplace 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, which is truly an Honors University in Maryland.



William R. LaCourse, Dean

## Carl S. Weber Excellence in Teaching Award

### Sarah Leupen—2014 Award Winner



Sarah Leupen is a senior lecturer in the Department of Biological Sciences. She attended Oberlin College for her B.A. (Neuroscience), obtained her Ph.D. at Northwestern University (Neurobiology and Physiology), and did postdoctoral work at Harvard Medical School. At UMBC, she teaches anatomy, physiology, nutrition, and a seminar in the Honors College. Sarah is always trying to learn new things about teaching and learning, and is a certified trainer-consultant in Team-Based Learning. She co-coordinates the Biology Teaching Circle with Cynthia Wagner and is also part of UMBC's team of the HHMI-funded NEXUS collaboration, integrating quantitative concepts into introductory biology courses. Another UMBC team she's a part of, ALEF, is developing computer simulations of biological processes to improve conceptual understanding in undergraduate biology labs. In her spare time, she loves hiking, camping, and just generally being outdoors with her family.

### Description and Sponsor of Award

#### Carl S. Weber Excellence in Teaching 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.



## Congratulations to the Graduating Class of May 2014

**UMBC 2014 Salutatorian:**

**Kwadwo Owusu-Baoitey**

Majors: Philosophy and Biological Sciences



## 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.

### Biochemistry & Molecular Biology

Chinwendu L. Amazu	Uchenna C. Okoro
Benavides Panizo Augusto	Kelly Pham
Abigail Jackson	Joseph L. Posner
Oleg Makarevich	Yura Rhee
Nathan Max	Blossom Z. Tewelde
Michael S. Moubarek	Pauline C. Xu

### Biological Sciences

Nour Al Ghriwati	Rita Mallouh
Nina Beri	Wendy Mao
Sarah Campbell	Zachary Margulies
Yu-Rei Chang	Akua Nimarko
Wei Gao	Kwadwo Owusu-Boaitey
Quynh-Nhu Ha	Samantha N. Perry
Min Hwang	Lara M. Seidman
Jesse Johnson	Kelvin Tran
Zulqarnain Khan	Avraham Werdesheim
Owen Kwok	Charles A. White

### Chemistry

Drew T. Thatcher

### Mathematics and Statistics

Brandon Alexander	Benjamin Korbelak
Robert Dickens	Mona Prakash
Andrius A. Gaigalas	Luke E. Seppi
Catherine Hornback	Daniel Wesloh
Nayoung Kim	

### Physics

Nathan D. Smith

## AWARDS Department of Physics

*Awards will be presented by Dr. L. Michael Hayden.*

### Outstanding Graduating Senior in Physics

Kim V. Berghaus	David P. Rivas
Timothy S. Pillsbury	Nathan D. Smith
Muhed S. Rana	Matthew S. Wilcox

### Outstanding Graduate Teaching Assistant in Physics for Spring 2013

Brendan J. Hurst

### Outstanding Undergraduate Learning Assistant in Physics for Fall 2013

Wei C. Trinh

### Outstanding Undergraduate Learning Assistant in Physics for Spring 2013

Amy M. Gottlieb

### Joseph F. Mulligan Memorial Lectureship

Kim V. Berghaus

## Description and Sponsor of Award

### Joseph F. Mulligan Memorial Lectureship



This lectureship was established in 2005 by Eleanor W. Mulligan in memory of her husband, Joseph F. Mulligan, a former Professor of Physics at UMBC, who had a desire to encourage young people to become interested in physics. It is awarded to an undergraduate or graduate student who proposes to spend a year researching an historical aspect of a physicist or a physics-related event followed by a public lecture on his or her research.

# AWARDS Department of Mathematics and Statistics

*Awards will be presented by Dr. Nagaraj Neerchal.*

## Outstanding Graduating Senior in Mathematics

Andrius A. Gaigalas	Brendon A. Stellato
Timothy S. Pillsbury	Drew T. Thatcher
Luke E. Seppi	Xiao Zhang

## Outstanding Graduate Research in Mathematics

Teresa M. Lebair

## Outstanding Graduate Teaching Assistant in the Field of Mathematics

Nicole Massarelli

## Outstanding Graduate Teaching Assistant in the Field of Statistics

Rowena F. Bastero

## CIRC Consultant of the Year

Qing Ji	Sai Kumar Venkata Surya Popuri
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## Departmental Honors in Mathematics and Statistics

Drew T. Thatcher	Ann Marie K. Weideman
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## Dr. Bimal and Mrs. Suchandra Sinha Endowment for Excellence in Statistics Research (Graduate)

Sungwoo Choi	Nilabaja Guha
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## Dr. Bimal and Mrs. Suchandra Sinha Endowment for Excellence in Statistics (Undergrad)

Grace H. Choi

## Math Gym Coach of the Year

Sarah L. Hemler	Audrey Djialeu Nzombet
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## Freeman A. Hrabowski President's Advisory Council Scholarship

Mathematics majors, are juniors, have completed at least one semester at UMBC, and have a 4.0 cumulative GPA.

Christian P. Badolato  
Luke A. Cook  
Phillip Dang  
Paige L. Dutrow  
Sophia F. Haire  
John M. Hannegan

Ziyed Hedfi  
James C. Loy  
Jonathan H. Luckin  
Hailey Lynch  
Leslie N. McAdoo  
Samuel T. Phipps

## Pi Mu Epsilon

### The National Mathematics Honor Society

Pi Mu Epsilon 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.

Matthew Barteau  
Persephone Della  
Dominick DiMercurio II  
Jenna Gallagher  
Varsha Gazula  
Mehie Hahn  
Hyo Jeong Kang  
Ezra D. Kuhr  
Lauren Mazzoli  
Hunter McCawley

Nikki McNeil  
Danya Murali  
Mona Prakash  
Lael Rayfield  
Adam Reddan  
Corrina Ricker  
Catherine Rossbach  
Julian Sass  
Kabish Shah  
Pranjal Singh

## Descriptions and Sponsors of Awards

### Mathematics and Statistics Departmental Honors

Undergraduates earning this distinction have completed all requirements for a major in mathematics or statistics with a GPA of 3.6 or higher and, in addition to the major requirements, have completed a senior thesis (MATH 497 or STAT 497) with a grade of A or B.

### 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.



### 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.



### 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.



## AWARDS Department of Chemistry and Biochemistry

*Awards will be presented by Dr. Zeev Rosenzweig.*

### American Chemical Society (ACS) Analytical Chemist Award

Ethan P. Glaser

### Chesapeake Chemist; American Chemical Society (ACS), Maryland Chapter

Phoebe S. Tsoi

### CRC Press Chemistry Achievement Award

Romeo I. Portillo

### HYPERCUBE Scholar Award

Nadine Bucca

### Mittino Award for Chemistry Service

Trent Gabriel

### Organic Chemistry Award of the American Chemical Society

Uchenna C. Okoro

### The Donald Creighton Scholarship

Blossom Z. Tewelde

### The Lise Satterfield Scholarship

Pauline C. Xu

### The Vitullo Award for Undergraduate Research

James B. Taylor

### Top Senior Chemistry Majors

*(Sponsored by the Department and the American Institute of Chemists Foundation—AICF)*

Drew T. Thatcher

John T. Chavis

## Descriptions and Sponsors of Awards

### The American Chemical Society, Maryland Chapter

This chapter has presented an annual award with a copy of the Merck Index and other benefits to a top UMBC undergraduate chemist at its annual spring luncheon for many years. This group is also sponsoring the **Chesapeake Chemist** award for another top UMBC undergraduate chemist this year.

### CRC Press Award

Sponsored by Taylor and Francis Group LLC, this award program supports and encourages talented students to sustain an interest in the sciences. CRC Press, which has its roots in the Chemical Rubber Company, is one of the leading international publishers of scientific, engineering, business, mathematical, and forensic materials.

### HYPERCUBE

A computer modeling software company based in Gainesville, Florida, provides an annual award of software to a student planning an advanced degree in the chemical or life sciences.

### 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.

### 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 Lise Satterfield Scholarship



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

*(Dr. Lise Satterfield, Class of '84,  
with husband, Peter B. Bell, Class of '74.)*

## 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 Chemistry/Biochemistry student who worked in the department, who died in an untimely accident. 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.



*Dr. Victor Vitullo*

*No photo available  
for John R. Mittino*

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

## AWARDS

# Department of Biological Sciences

*Awards will be presented by Dr. Philip Farabaugh.*

### Outstanding Graduating Senior in Biological Sciences

Nour Al Ghriwati	Kelly N. Turner
Owen Kwok	Caitlin A. Welsh
Kwadwo Owusu-Boaitey	Xingzi Cindy Zhang
Lara M. Seidman	

### Outstanding Graduating Senior in Bioinformatics

Veer M. Gariwala	Rajashree Mishra
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### Outstanding Graduating Senior in Biochemistry & Molecular Biology

Marlene Keshia Kontcho	Joseph L. Posner
Kelly Pham	Yura Rhee

### Biological Sciences Departmental Honors in Research

Aymen Alqazzaz  
Faculty Mentor: Dr. Bernie Lohr

### Departmental Service Award

Dominick DiMercurio II

### Faculty Award for Excellence in Biological Sciences

Sergiu Costinas	Zulqarnain Khan
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### Faculty Award for Excellence in Biochemistry

Chinwendu L. Amazu	Amy E. Connor
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### 2013 Outstanding Graduate Teaching Assistant Award

Lathiena A. Manning	Karan J. Odom
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### Robert W. Dietrich Scholarship

Marina E. Mizell

### Roger Michael Davis Endowed Scholarship

Samantha N. Perry

### Sandoz Undergraduate Teaching Award

Aymen Alqazzaz	Charles A. White
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### Thomas V. Marsho & Martin Schwartz Memorial Fund Award

John F. Malloy

### William C. & Gregory O. Faith Scholarship

Michael S. Moubarek

## Descriptions and Sponsors of Awards

### Biological Sciences Departmental Honors in Research

Students who achieve the Biological Sciences Departmental Honors in Research have conducted independent research in a faculty member's lab for at least two semesters and maintained a minimum 3.25 GPA in the core classes of the Biological Sciences degree. In addition, these rising scientists have attended multiple research seminars and written detailed abstracts of these presentations, they have presented their own research in a public forum, and they have written up the results of their research as an Honors thesis in the format of a scientific article.

### Robert Dietrich Scholarship Award

Established in FY 2002 by Mary A. Dietrich in tribute to her son, Robert W. Dietrich, the long-time Laboratory Facilities Manager in the Department of Biological Sciences and a Class of '70 alumnus. An award is provided annually to an undergraduate sophomore, junior, or senior majoring in Biological Sciences at UMBC.



### Roger Michael Davis Endowed Award



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.



## Descriptions and Sponsors of Awards *(continued)*

### Sandoz Undergraduate Teaching Award



Established in 2012, this undergraduate teaching award honors James Sandoz, who 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.

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

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. 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.



Thomas Marsho



Martin Schwartz

### The William C. and Gregory O. Faith Scholarship

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.



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

## ABOUT OUR AWARDEES

*Award winners are listed in alphabetical order by last name.*

**Nour Al Ghriwati**—I have double majored in both biology and psychology as an undergraduate. I am a research assistant at the Pediatric Psychology Lab at UMBC and at Johns Hopkins Bayview Medical Center. I am extremely interested in the overlap of medicine with psychology, and so I am going to get my Ph.D. in Clinical Psychology from Virginia Commonwealth University, with a research emphasis on the quality of life of cancer pediatric patients.

**Aymen Alqazzaz**—I've had three years of research experience at Dr. Bernard Lohr's laboratory, and two semesters as an undergraduate teaching assistant. This has prepared me, I believe, for a future in academia and research in evolutionary biology.

**Chinwendu L. Amazu**—I am a Meyerhoff, HHMI, and MARC U\* Star Scholar. I have participated in two summer internship experiences, one was at Johns Hopkins University, and the other was at Washington University, School of Medicine in St. Louis. My sustained research experience is at University of Maryland, School of Medicine in Baltimore. In the fall, I will matriculate into a M.D./Ph.D. program and my goal is to become a physician scientist in academic medicine.

**Rowena F. Bastero**—I am currently a 3rd year Ph.D. student working on propensity score matching analysis under the guidance of Dr. Bimal Sinha. My other research interest is spatiotemporal modelling, where I have published a paper entitled "Robust Estimation of a Spatiotemporal Model with Structural Change" in the Journal of Communications in Statistics - Simulation and Computation. At present, I am focused on making substantial progress on my chosen field of research towards the ultimate goal of completing my Ph.D. and consequently, joining the academe.

**Kim V. Berghaus**—Kim will be graduating this fall with a B.S. in physics and a minor in mathematics and economics. She came to UMBC from Germany on an athletic scholarship to play tennis. Throughout her undergraduate career she has been competing at the top of the line up while pursuing her studies and conducting research with Dr. Hayden in nonlinear optics. She has recently joined the Honor Society Phi Kappa Phi. This year she has the honor of holding the Mulligan lecture about Albert Einstein on May 14th. After graduation she will join Dr. Giuliano Scarcelli's lab at Harvard Medical School to work on Brillouin spectroscopy for a year before attending graduate school in physics.

**Nadine Bucca**—I've enjoyed working in the Summers Lab since May 2012. I plan to continue pursuing an education on the biology and chemistry interface in order to become a professor.

## ABOUT OUR AWARDEES *(continued)*

**John T. Chavis**—During my undergraduate career I have had the pleasure of conducting research with Dr. Elsa Garcin, Dr. Joel Liebman and Dr. Richard Wormsbecher in the Department of Chemistry at UMBC. I have also worked with Dr. Irving Epstein at Brandeis University. As a result of their mentorship, I am planning to pursue graduate studies and I ultimately aspire to pursue a career in research.

**Grace H. Choi**—Double major in Mathematics and Statistics with minors in Biology and Economics and member of the Honors College. Class of 2016. I will be attending the 2014 Summer Program in Quantitative Sciences in the Dept. of Biostatistics at the Harvard School of Public Health. I would like to continue in studying statistics in graduate school.

**Sungwoo Choi**—Two of my papers have been accepted by journals. I am planning to pursue a career in government agencies working on various statistical research for public health.

**Amy E. Connor**—I came to UMBC to study Biochemistry in order to fulfill my profound interest in science. I plan to enter the Master of Arts in Teaching Program at UMBC in the fall, and I am looking forward to inspiring young students to find an interest and creativity in Chemistry.

**Sergiu Costinas**—A total of 5 semesters of research at Dr. Bernard Lohr's laboratory and two semesters of undergraduate teaching in molecular genetics with Dr. Cynthia Wagner. I hope to use these valuable experiences in the future as I pursue a career in medicine.

**Dominick DiMercurio II**—UMBC has offered me many research opportunities over the years, from work with research journalism as an editor for the UMBC Review to the ability to perform my own experiments in the Interdisciplinary Training Program for Undergraduates in Biological and Mathematical Sciences (UBM). I hope to apply what I learned at UMBC and to continue with my love of research by going to professional school and becoming a medical researcher.

**Trent Gabriel**—In the fall, I will be attending the D.M.D. program at the Kornberg School of Dentistry at Temple University. Afterwards, I plan on becoming a professor at a dental school because of my wonderful experiences as an Organic Chemistry Learning Assistant.

**Andrius A. Gaigalas**—While working towards a double major in mathematics and financial economics at UMBC, Andrius completed internships at the National Institute of Standards and Technology, T. Rowe Price, and Credit Suisse. He also served as the president of the Investing and Trading Club and the treasurer of the Model Rocketry Club. Upon graduation in May, Andrius will begin his career in the financial services industry as a junior trader on the Credit Suisse interest rates trading desk.

## ABOUT OUR AWARDEES *(continued)*

**Veer M. Gariwala**—*A synopsis was unavailable at the time of program publication.*

**Ethan P. Glaser**—I interned at the FDA for two summers where I did research on the safety of medical devices. While working there I published a paper on the impact of tissue composition on drug delivery in the Journal of Pharmaceutical Sciences. I am currently doing research in Dr. Ryan White's lab at UMBC where we are developing an electrochemical aptamer-based sensor with an anti-fouling hydrogel matrix that can be used in vivo for long term sensing. After college, my goal is to either earn my Ph.D. in a field of biochemistry or go to medical school.

**Amy M. Gottlieb**—Amy is a junior physics major, mathematics and astronomy minor. She has done research at the National Solar Observatory and NASA Goddard Space Flight Center and will continue to work for NASA this summer. She will be graduating in December of 2014 and will pursue a Ph.D. in astronomy the following fall.

**Nilabja Guha**—My research area includes various areas of mathematical and applied statistics. I want to continue my research in future and contribute to my discipline.

**Sarah L. Hemler**—Sarah Hemler is a junior, mechanical engineering student who conducted bio-mechanics research at the University of Pittsburgh while in a pre-Ph.D. program and will be involved in similar research in her remaining semesters and summers. Thus, following graduation in 2015, Sarah would like to pursue a Ph.D. in Biomedical or Mechanical Engineering.

**Brendan J. Hurst**—*A synopsis was unavailable at the time of program publication.*

**Qing Ji**—I am a first year Ph.D. Student in Statistics. I graduated from Miami University with a Master Degree. My duty as a CIRC member is to work with students and professors either from campus or off-campus and help them with statistical analysis part of their research projects. I worked also as consultant in my Master Program and had several internships with Procter and Gamble. My area of interest in Statistics is data mining.

**Zularnain Khan**—While majoring in Biology with an International Affairs minor, I served as the Program Coordinator of Health Leads (2010-present), and conducted physiological research at the University of Maryland School of Medicine (2011-present); the highlights were being published in "The Daily Times of Pakistan", and winning the David E. Bruce awards for my poster abstract/presentation at the annual Experimental Biology Meeting in Boston (April 2013). Following graduation, I will be starting medical school at the University of Maryland School of Medicine in Fall '14, and subsequently hope to pursue cardiology or orthopedic surgery.

**Marlene Keshia Kontcho**—I am graduating with a B.S in biochemistry and molecular biology. For the next one or two years, I would like to acquire more research experience in the biotechnology industry. My long term goal is to get into dental school and become an oral surgeon.

## ABOUT OUR AWARDEES *(continued)*

**Owen Kwok**—I had multiple internships related to the biological sciences - two at USDA, Beltsville, MD, and one at the Einstein Medical Center in Philadelphia, PA. I am also currently working on an independent project in Dr. Stephen Miller's lab. I intend to attend a Ph.D. program involved in the cellular and molecular biological sciences.

**Teresa M. Lebair**—My research applies optimization and optimal control to constrained estimation problems. I hope to one day be a mathematics professor.

**John F. Malloy**—I am an undergraduate researcher in the lab of Dr. Kevin Omland (Biological Sciences) as part of the Undergraduate Biology and Mathematics Program. As a part of the lab, I have had many unique opportunities, including presenting at national conferences and going on research trips to Puerto Rico. This summer, I am participating in an internship at the University of Wisconsin-Madison with a focus on Biostatistics.

**Lathiena A. Manning**—My main career goal is to enter academia with a tenure track research faculty position. This will allow me to continue developing and implementing progressive teaching approaches to enhance science education, promote underrepresented groups in sciences and heighten advancements in science.

**Nicole Massarelli**—I am a fourth year Ph.D. student in the Applied Mathematics program working in dynamical systems and mathematical biology under Dr. Kathleen Hoffman. My first paper, on predator-prey equations, was published in the *Journal of Mathematical Biology* in December of 2013.

**Rajashree Mishra**—I am a Meyerhoff Scholar, HHMI Scholar, and MARC U\*STAR Scholar. This fall I will be pursuing my Ph.D. in Genomics & Computational Biology at the University of Pennsylvania.

**Marina E. Mizell**—While attending UMBC I plan to earn my B.A in the Biological Sciences and then continue at UMBC's Graduate school to earn my masters degree. I then hope to attend University of Maryland School of Medicine to become a pediatrician. This summer I will begin an internship with the University of Maryland's School of Medicine in their pediatric department.

**Michael S. Moubarek**—I was named as a 2014 Goldwater Scholar and plan to pursue a M.D./Ph.D. in Biochemistry, Cell, and Molecular Biology to conduct research in the field of cancer or biomedical science and global health and teach at the university level.

**Audrey Djialeu Nzombet**—I was in the engineering club at Baltimore City Community College and transferred from Baltimore City Community College. I want to be a computer engineer and am still thinking of a double major in Math or information systems.

**Karan J. Odom**—*A synopsis was unavailable at the time of program publication.*

## ABOUT OUR AWARDEES *(continued)*

**Uchenna C. Okoro**—After graduation, I plan to relax during the summer before matriculating into medical school in the fall.

**Kwadwo Owusu-Boaitey**—My overall career goals lie at the interface of research and medicine. In the fall, I will begin training as a physician-scientist in the combined M.D./Ph.D. program at Harvard and MIT. I hope to become a physician-scientist at a medical university where I can run a laboratory, teach medical/graduate students, and be involved with patient care.

**Samantha N. Perry**—I am junior studying Biological Sciences in my path to Veterinary school. I currently am gaining experience in the veterinary field through an internship at Sykesville Veterinary Clinic. I am a 2014-2015 URA Scholar and will begin my independent research project in Dr. Bernard Lohr's lab in the fall. I am a member of several honors societies including NSCS, Phi Kappa Phi, and Phi Beta Kappa.

**Kelly Pham**—I plan to have a career in the medical field and am in the process of applying to medical schools. I hope to attend a school close to home to be near my family, and while awaiting decisions from medical schools, I will continue volunteering for the Grassroots Homeless Shelter. Also, I will soon start working for Medical Scribe Systems. Lastly, I hope to find a position in a research lab.

**Timothy S. Pillsbury**—Tim will be graduating with a B.S. in Physics and Mathematics and is a member of the Sigma Pi Sigma Physics Honor Society. For the past two years, he has done research at UMBC on non-linear optics with Dr. Hayden and has been supported by an Undergraduate Research Award. He has also conducted research at ENS de Cachan in France where he studied the optical properties of quantum dots. This fall, he will be attending Pennsylvania State University in pursuit of a Ph.D. in Condensed Matter Physics.

**Sai Kumar Venkata Surya Popuri**—I have an undergraduate degree in Information Systems from Birla Institute of Technology & Science, Pilani, India, and a Masters in Quantitative Finance from Georgia Institute of Technology, Atlanta. Having worked in the Finance and Technology space for ten years, and after having experienced the extensive applications on statistical methodologies in the industry, in 2011 I decided to come back to school to pursue a Ph.D. in Statistics. I am extremely happy that I chose UMBC to pursue my goal. The excellent quality of the faculty here and the encouragement and opportunities my department provides has only reinforced my decision to join UMBC. CIRC has provided me an excellent platform to work with a diverse set of researches from across the university on challenging problems in science. I plan to leverage this experience and build a career in statistical research in Finance, Pharma, Technology or Ecological spaces.

**Romeo I. Portillo**—Romeo joined Dr. Mark Allen's research group in February 2013 and served as the Physical Chemistry Club president. Romeo will be joining the graduate chemistry program at Colorado State University this fall.

## ABOUT OUR AWARDEES *(continued)*

**Joseph L. Posner**—I was accepted to UMBC with a full scholarship by transferring from CCBC with the President's Transfer Award. Since then, I have been accepted into Phi Kappa Phi and Phi Beta Kappa honors societies. When I graduate, hopefully still with a 4.0 GPA, I will be working as a research intern at John Hopkins Hospital while I apply to medical schools with M.D./Ph.D. programs.

**Muhed S. Rana**—Muhed Rana is a senior graduating with a BS in Physics and a minor in Mathematics. During his time at UMBC, he has done research with Dr. Anthony Johnson and Dr. Jason Kestner, and as a summer intern in Fermilab. He was also an LA for introductory physics for three years. He will be attending the University of Arizona in Tucson for his Ph.D. in Theoretical Physics.

**Yura Rhee**—*A synopsis was unavailable at the time of program publication.*

**David P. Rivas**—My research at UMBC has been with Dr. Georganopoulos in the field of astrophysics during which time I received support with an undergraduate research award. I have been on the president and deans lists (not sure how many times) and am a member of the Phi Theta Kappa, NSCS, and Golden Key International Honor Societies. I will be doing my graduate studies at Johns Hopkins University in the Fall. My goal in my eventual career is to do cutting-edge work on a significant and important topic that will repeatedly provide intellectual stimulation.

**Lara M. Seidman**—In my time at UMBC as a Meyerhoff Scholar, I have tutored general and organic chemistry and worked in several research laboratories, including summer internships at the Medical University of South Carolina and the University of Lausanne in Switzerland. Next year I will attend the University of Maryland School of Dentistry and plan to incorporate teaching in my future career.

**Luke E. Seppi**—Luke Seppi, a member of the UMBC Baseball Team, will be receiving his BS in Mathematics as well as a minor in Saxophone Performance. He has completed internships at the University of Notre Dame and the University of Pittsburgh during his undergraduate career. Upon graduation, Luke will begin working for Northrop Grumman as a Systems Engineer and will attend Johns Hopkins University for his Master's Degree in Applied Mathematics.

**Nathan D. Smith**—Nathan will be graduating this spring with a B.S. in Physics and Mathematics and a B.A. in Ancient Studies. He is a member of the Meyerhoff Scholars Program and the Honors College here at UMBC and has placed on the President's and Dean's list several times throughout his undergraduate career. He has worked for the Physics department setting up introductory labs for the past three years. In addition, he spent two summers working for the National Institute of Standards and Technology on computational materials science and solar energy. He has also assisted Dr. Gougousi by constructing a temperature controller and the INCOSE Future of Energy Initiative by conducting a study on wind energy grid optimization. In the fall, he will be pursuing his Ph.D. in Materials Science and Engineering at Penn State.

## ABOUT OUR AWARDEES *(continued)*

**Brendon A. Stellato**—Brendon collaborated with a team of astronautical engineers from Capitol College to develop a proposal to submit to Analytical Graphics, Inc. He researched orbital analysis data and applied mathematical modeling of collision probabilities to develop a CubeSat Mission Proposal which essentially would assist NASA in cleaning up space debris.

**James B. Taylor**—I am a senior chemistry major here. Next fall, I will be at the University of North Carolina at Chapel Hill pursuing a Ph.D. in Analytical Chemistry with the hopes of pursuing a career in science communication or education.

**Blossom Z. Tewelde**—While at UMBC, I have enjoyed several opportunities to research, TA and tutor. After graduation, I plan to matriculate into an M.D./Ph.D. program and conduct research in pharmacology. Ultimately, I hope to work as a physician-scientist in academia.

**Drew T. Thatcher**—I am graduating with degrees in Chemistry and Mathematics. In the fall I'll be attending The University of Maryland, College Park for a Ph.D. in Applied Mathematics.

**Wei C. Trinh**—I am a sophomore pursuing a Physics and Mathematics degree. I am currently a Meyerhoff scholar and plans to earn a Ph.D. after graduation.

**Phoebe S. Tsoi**—Phoebe Tsoi has been a part of Dr. Marie-Christine Daniel's lab for almost two years. She has received the Undergraduate Research Award at UMBC both in 2013 and 2014. She plans on researching pancreatic cancer in her post-graduate career.

**Kelly N. Turner**—Kelly has done biological research as a National Science Foundation Research Experiences for Undergraduates student at Carnegie Mellon University and polymer research as an intern with the United States Navy. After graduating from UMBC, she plans to pursue a Master's Degree in Occupational Therapy.

**Caitlin A. Welsh**—As an older student, completing this degree was no easy task. Using the acquired knowledge from this experience, I plan to pursue teaching and to continue learning about the nature, complexities, and curiosities of biological life.

**Ann Marie K. Weideman**—I have spent the past two years working on a research project under the NSF funded Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences. This summer, I will attend an internship program at the National Cancer Institute and plan to return to UMBC in the fall to complete my Master's degree in mathematics.

**Charles A. White**—I been a undergraduate research assistant in Dr. Bernard Lohr's lab for five semesters and have been an teaching assistant for Molecular and General Genetics (BIOL 302) for two semesters. My future plans consist of attending medical school and pursuing a career in the medical fields.

## ABOUT OUR AWARDEES *(continued)*

**Matthew S. Wilcox**—I have been tutoring or teaching students in introductory physics for the last three years as well as doing research in non-linear optics. In the fall I will begin graduate school at the University of Central Florida. I plan on doing research in physics education.

**Pauline C. Xu**—I am currently a junior Meyerhoff Scholar majoring in biochemistry and molecular biology. As an aspiring M.D./Ph.D., my goal is to combine research and clinical experience to develop new treatments and find cures for patients.

**Xiao Zhang**—I will go to graduate school for mathematics at UMBC. I hope to pursue a Ph.D. someday.

**Xingzi Cindy Zhang**—I am a transfer student from Carroll Community College. In the first semester at UMBC, I was in the top 5% of the evolutionary biology class, and my professor recommended me to be a teaching assistant in his class. In my senior year, I became a peer tutor at UMBC's athletic department. I also participated in a research involving sound analysis and acoustic bird surveys at UMBC's Department of Biology. I am interested in pursuing a master's degree in molecular biology at UMBC.

# SAVE THE DATES

## **Seventeenth Annual CNMS Summer Undergraduate Research Fest**

Wednesday, August 6, 2014  
University Center, Ballroom, 3rd Floor  
[surf.umbc.edu](http://surf.umbc.edu)

## **Seventeenth Annual Undergraduate Research Symposium in the Chemical and Biological Science**

Saturday, October 25, 2014  
University Center, Ballroom, 3rd Floor  
[cnmssymposium.umbc.edu](http://cnmssymposium.umbc.edu)

## **A Look Ahead:**

### **Explorations in Transformative Research**

Wednesday, April 15, 2015  
[alookahead.umbc.edu](http://alookahead.umbc.edu)

## **Nineteenth Annual Undergraduate Research Creative Achievement Day (URCAD)**

Wednesday, April 22, 2015  
[umbc.edu/urcad](http://umbc.edu/urcad)

## **Tenth Annual CNMS Student Recognition Day**

Friday, May 1, 2015  
[umbc.edu/CNMS](http://umbc.edu/CNMS)

*Please visit the CNMS website for periodic updates about our  
programs, activities, faculty, students and staff:  
[umbc.edu/CNMS](http://umbc.edu/CNMS)*