

CSAM NEWSLETTER

COLLEGE OF SCIENCE AND MATHEMATICS: A SPECTRUM OF POSSIBILITIES

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CSAM Celebrates Official Ribbon Cutting

By Jinan Jaber, Dean's Office

Eighteen months after groundbreaking the new \$55 million Center for Environmental Life Sciences (CELS) building held its' first classes on September 2nd. An official grand opening ceremony was held on Wednesday, October 13 with one hundred and fifty invited MSU alumni,

naut, U.S. Navy Captain, test pilot and author of children' books. Robert Hariri is chairman, founder and chief scientific officer of Celgene Cellular Therapeutics, as well as a pioneer in the use of stem cells to treat a range of life threatening diseases. Kelly and Hariri capped the event with a discussion on "The Future of Science," moderated by Dean Prezant. The open discussion covered topics such as STEM education and social and ethical issues that impact our citizens, the local, national and global communities.



Flanked by CSAM students, Captain Kelly, Dean Prezant, President Cole and Dr. Hariri cut the ceremonial ribbon.

members of the CSAM Advisory Council, representative from NJ industry and educational institutions, and MSU faculty, administrators and students. Captain Mark Kelly and Dr. Robert Hariri joined President Susan A. Cole and Dean of the College of Science and Mathematics Robert Prezant in the ceremonial ribbon cutting. Mark Kelly is a former NASA astro-

The Center for Environmental and Life Sciences (CELS) "provides 107,500 gross square feet of new critically important space and dramatically increases our research space" said Dean Prezant. He added that "The new building represents a successful collaboration between our administration and faculty, who participated in almost every aspect of its design." The building was financed in part with state funding from the \$750-million New Jersey *Building Our Future* Bond Act approved in 2012.

CELS, designed by SLAM Cooperative and constructed by Terminal Construction, houses the Department of Earth and Environmental Studies, classrooms, the CSAM Dean's Office, as well as the administrative offices of the College's Sokol Institute for Pharmaceutical Life Sciences, PSEG Institute for Sustainability Studies, and the Pas-saic River Institute. The research space consists of seven large trans-disciplina-

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From Dean Prezant



The College of Science and Mathematics has always been focused on discovery and collaboration...preferably together. With the official opening of the Center for Environmental and Life Science (CELS) the college has added a new platform for discovery and collaborative work, adding to our current facilities in Richardson, Science, and Mallory Halls

along with parts of Schmitt and Blanton Halls. With astronaut Mark Kelly and stem cell pioneer and entrepreneur Bob Hariri on hand to insure a successful launch, CELS has officially opened and taken off. The labs, teaching facilities and open social areas are alive with students and faculty and staff (from across campus) taking advantage of this newest addition to CSAM...as well as the great view of the NYC skyline. What is more remarkable is the building has been "found" by the "outside world" and in the past several weeks has served as a "venue" for programs for with BioNJ, the NJ Technology Council and the NJ

Department of Environmental Protection. CELS, as is true for so much in CSAM, has a foundation built in the spirit of outreach and collaboration. Teams of individuals across departments, along with colleagues from industry, envisioned the new building while an outstanding team of architects and builders put the bricks and mortar together to make it real. So much of what we do depends on teams and team efforts. A team of CSAM Chairs, Directors, and Administrators gather each September for a retreat at our NJ School of Conservation (also part of CSAM) to toss around new ideas and new directions for our College (see image of retreat team below) and to reflect on where we've been and where we're going. From these meetings and meetings throughout the year we continue on a path for continual renewal and quality improvement...building on our strong foundations and producing new programs, pursuing new research, and creating new infrastructure...with a strong eye on student needs and student futures. For those not currently part of our College but would like to learn more, see: <http://www.montclair.edu/csam/> and for those who would like a tour of our remarkable new facility, our CSAM Student Ambassadors stand ready to assist...just let us know. ♦



CSAM academic department chairs, centers, institutes and program directors, and members of the dean's office at the annual College retreat in September 2015 at the NJ School of Conservation. Photo by R. Fitzgerald.

Advisory Council — Member Profile



Jeanne Litwin is a 1981 graduate of Montclair State University with a B.A. in environmental studies. She is a senior vice president with CDM Smith, a full-service global firm offering engineering and construction services across project life cycle in water, environment, transportation, energy, and facilities.

Jeanne serves as the portfolio manager for CDM Smith's national U.S. Environmental Protection Agency (EPA) and Federal Land Agency's environmental work. In this capacity, she manages program operations and client service delivery for her client's hazardous waste remediation programs. CDM Smith is a leader in the EPA Nationwide Superfund program; through advanced technologies and designs, effective and efficient program management; and industry-respected thought leadership, the firm delivers innovative and sustainable solutions to clients. CDM Smith is committed to continually improving environmental value, quality of life and economic prosperity for the communities where we live and work. CDM Smith has three offices in the New York metropolitan area and has association with MSU graduate students, faculty and student interns. CDM Smith has been a proud sponsor of the Passaic River Symposium.

Jeanne became a member of the MSU College of Science and Math Advisory Committee in May 2015 and is actively involved with several professional organizations. She is associated with the National Registry of Environmental Professionals as a registered environmental manager and the Project Management Institute as a project management professional (PMP), and is a long standing member of the Society of American Military Engineers (SAME). In 2014, Jeanne established and chaired a 3-day SAME training symposium, co-sponsored by EPA and titled "Design and Construction Issues at Hazardous Waste Sites," with a goal to facilitate interaction between professionals on relevant issues affecting the cleanup of the environment. She serves as the president of the New Jersey Post SAME Scholarship Committee with an objective to promote a mentoring link with students in science and engineering. In the 15 years that Jeanne was involved in the program, more than \$65,000 has been awarded to deserving engineering, architectural and engineering-related (STEM) college students in New Jersey.

As a leader in her organization, Jeanne created a multi-office Women's Forum designed to provide networking opportunities to women and help build relationships that will enhance careers, develop mentors and leadership skills, address work/life balance issues, promote community service, while fostering high employee engagement within the offices. She leads the steering committee made up of women at different stages of their career. ♦

The Rising Tide Program

By Sandra Passchier, Earth and Environmental Studies

In 1953, a northwesterly storm surge aggravated by spring tide flooded a large part of the Netherlands. The U.S. Army sent helicopter units stationed in Germany to help with the rescue efforts. More than 1800 people lost their lives. While the 1953 event was unprecedented in its scale, floods have plagued the Netherlands for centuries and flood management is engrained within all government levels and its cultural heritage. In the aftermath of Hurricane Sandy, the Rising Tide program aims to highlight the rich history of Dutch water management.

An initiative of Steven Shapiro of the MSU Sprague Library in a collaborative effort with the College of Science and Mathematics (CSAM), the program consists of a series of lectures, discussions and multimedia events throughout the Fall 2015 semester. Nearly a dozen lectures and discussions are planned along with film screenings, an art exhibition and a concert (see back page for list of events) that all explore the Dutch and their uneasy relationship with water in an attempt to learn what New Jersey can do in the wake of Hurricane Sandy. To better comprehend the Dutch mindset, the program will address relat-

ed themes such as the Dutch Republic, a former maritime power, and its legacy in New Jersey and New York. The history of human understanding regarding the sea and natural disasters will also be examined from a local and global perspective.

The program is organized by CSAM, Harry A. Sprague Library, Global Education Center, College of the Arts, College of Humanities and Social Sciences, WMSC Radio, and the Office of Civic Engagement made possible by a grant from was the New Jersey Council for the Humanities, a state partner of the National Endowment for the Humanities. (See calendar of events on page 4.) Additional support has been provided by the Kingdom of the Netherlands, the Montclair Public Library, the Montclair Historical Society, Greener Bloomfield, the MSU PSEG Institute for Sustainability Studies, the Jacob Leisler Institute and Montclair TV34. The free program is open to entire MSU community as well as the general public. More information is available at montclair.edu/csam/rising-tide/. ♦

continued from page 1— Ribbon Cutting
 ry research lab suites for faculty-student research, with a multitude of prep and shared equipment and other lab support spaces. A computational research lab, a GIS lab, four lab classrooms, a 140 seat lecture hall (pictured below), and five seminar



rooms of various capacity comprise the instructional space. An 880 square foot incubator laboratory, offering a suite of lab spaces and equipment, was constructed in support of CSAM's goal of outreach to industry.

The building also features a two story atrium and a first floor patio overlooking the New York City skyline

and numerous student open lounges and study areas. This LEED Certified Green Building includes a green terrace, light-harvesting system in classrooms, energy-saving heat recovery chiller and a storm water management system. The third floor green terrace is used as a study site and retreat. Green roofs are encouraged by LEED® as an approach to cool the building and better retain "gray" water. The green terrace helps extend the life of the roofing membrane, provide energy savings, and creates valuable public green space. It also provides

CELS Atrium



CELS Green Terrace

Montclair students with a unique place to conduct studies and experiments. The advantages of the green roof, according to *SLAM* Public Relations Coordinator Angelica Y. Poprawa, "include extending the green space of the campus, reducing heat transfer through the roof, improving energy efficiency, limiting rainwater surges, serving as an outdoor classroom and providing an entertainment venue."

Celebration of the building will continue throughout the academic year with a lecture series entitled Emerging Science. (See schedule below). ♦

Emerging Science Lecture Series

Thursday, November 19, 2015 (6:30 PM): *The Power of the Sea: A History of Man's Quest to Predict Storm Surges, Floods and Other Marine Catastrophes.* Dr. Bruce Parker, Stevens Institute of Technology.

Monday, December 7, 2015 (6:30 p.m.): *Approaches to Global Diseases.* Dr. Jerry Zeldis, Chief Medical Officer, Celgene Corp.

Thursday, February 18, 2016 (8:00 p.m.): *Phosphorus and nitrogen and carbon, oh my! The watershed and global roles of wetlands in mitigating pollutants.* Dr. William J. Mitsch, Juliet C. Sproul Chair for Southwest Florida Habitat Restoration and Management, Professor of Marine and Ecological Science, Florida Gulf Coast University

Wednesday, April 13, 2016 (11:30 a.m.): PharmFest keynote: *The Value of Innovation.* Mr. James C. Greenwood, President and CEO, Biotechnology Industry Organization.

The Rising Tide Program Lectures

Thursday October 29 (6:15 p.m.): *The History, Archaeology and Social Context of the Van Reyper-Bond House in Upper Montclair.* Peter Siegel, MSU.

Monday November 2 (6:30 p.m.): *The Netherlands, New Amsterdam and the Origins of Modern America.* David Voorhees, Jacob Leisler Institute.

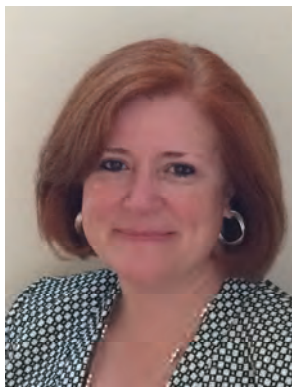
Thursday, November 5 (6:30 p.m.) *The Sand Engine: An Innovative Approach to Creating a Natural Water Barrier.* Karel Heijnert, Deltares USA Inc.

Wednesday November 11 (7:00 p.m.): *Remembering Holland.* Henry Luttikhuisen, Calvin College.

Thursday, November 19 (6:30 p.m.) *The Power of the Sea: A History of Man's Quest to Predict Storm Surges, Floods and Other Marine Catastrophes.* Bruce Parker, Stevens Institute of Technology.

New Directors Join CSAM

Ms. **Kelly S. Patterson** joined CSAM in spring 2015 as the founding Vivarium Director. She holds a B.S. (University of Phoenix) and M.S. (Drexel University) in Laboratory Animal Science. Previously, Kelly worked at Purdue Pharma, L.P. and managed the vivarium as part of the Discovery Research effort within the In-Vivo Sciences group. She was instrumental in setting up the pre-clinical GI Cancer research laboratory at Columbia University for the Chief of Digestive and Liver Diseases. She has co-authored more than a dozen peer-reviewed articles on GI cancer and G-protein Coupled Receptors. Kelly brings a strong foundation to develop and grow the in-vivo research program. She is a member of the Laboratory Animal Managers Association (LAMA), National American Association for Laboratory Animal Science (AALAS), Public Responsibility in Medicine & Research (PRIM&R), and is the incoming president for New Jersey's branch of AALAS- NJAALAS.



Dr. Amy Tuininga, an ecosystems ecologist and most recently Chief Research Officer at Fordham University, joined CSAM as Director for the PSEG Institute for Sustainability Studies. Amy has served many roles at Fordham including Co-Director of the Bronx Science Consortium, Associate Dean for Strategic Initiatives, Partnerships and Assessment for the Graduate School of

Arts and Sciences, and Associate Chair of Graduate Studies for the Department of Biological Sciences. She holds a Ph.D. in Ecology and Evolution from Rutgers University, an M.S. in Botany and Plant Pathology from Oregon State University, and a B.S. in Botany from the University of Washington. Amy has received funding from NSF, National Center for Science and Civic Engagement, Wildlife Conservation Society, NIH, NJ DEP, and the US DOI for her research and program initiatives. Her research funding has centered on ecology of pathogenic fungi, changes in forest health and nutrient cycling, effects of host defoliation and distribution on spatial patterns in ectomycorrhizal fungi, and invasive earthworms. She is looking forward to fostering collaborations and partnerships across disciplines that support sustainability.

Visit CSAM at
www.montclair.edu/csam/

New Faculty

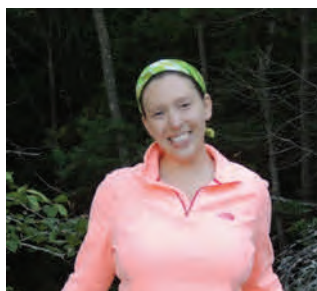


Dr. Deepak Bal
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 Department of Mathematical Sciences
 B.S. Ohio State University
 M.Sc., Ph.D. Carnegie Mellon University

Dr. Jaclyn Catalano
 Assistant Professor
 Department of Chemistry and Biochemistry
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 Ph.D. University of Georgia



Dr. Bharath Kumar Samanthula
 Assistant Professor
 Department of Computer Science
 B.Tech IIIT-B.S. Hyderabad
 Ph.D. Missouri University of Science and Technology



In Memoriam: John T. Thiruvathukal

By Stefanie Brachfeld and Gregory Pope, Earth and Environmental Studies

Professor John V. Thiruvathukal passed away on September 17, 2015. "John T.," as he was affectionately



known by his friends and colleagues at Montclair State University, was born in Cherthala, Kerala, India. He moved to the United States as a teenager and earned his B.S. in Geological Engineering at St. Louis University in 1961, his M.S. in Geology at Michigan State University in 1963, and his PhD in Geophysics from Oregon State University in 1968. During his distinguished career, John T. served on the faculty at DePauw University, Indiana, as a consultant and staff associate with the National Academy of Sciences - National Research Council Board of Earth Science, and as a faculty member at Montclair State University since 1970. John's research interests included regional geophysics of Oregon and New Jersey, the use of gravity measurements to probe the structure of the Earth's

crust. John was also a marine scientist and interested in alternate energy resources from the sea such as ocean thermal energy conversion.

We estimate that John directly influenced the lives of nearly 10,000 students enrolled in his undergraduate and graduate courses in Oceanography, Earth and the Environment, and Advanced Marine Geology, and Geophysics. He influenced many more students via his textbook "Elements of Oceanography," which he co-authored with lead author Dr. Jon Michael McCormick. John T.'s former students describe him as a caring and compassionate man with a gift for bringing science to life.

John T. was active in every facet of Montclair State University life. He served in leadership roles within inherently interdisciplinary units that transitioned from the Department of Physics and Earth Science, to the Department of Physics and Geoscience, and finally to our merger with Geography to form the Department of Earth and Environmental Studies. He was twice elected chairman of the President's Commission on Affirmative Action. He served on the MSU Faculty Senate, and on numerous university, college, and department committees. As his colleagues, we will always remember John T.'s calm and steadying influence, how he cared deeply for the personal and professional well being of new faculty and staff, and how he helped junior colleagues adjust to the rigors of life at MSU. John T. will be deeply missed. ♦

In Memoriam: Carl C. Bredlau

Dr. Bredlau was Professor of Computer Science and taught at Montclair State University for 38 years, retiring in 2008. He held a PhD in Mathematics from Rutgers University and a Master's degree in Computer Science from Stevens Institute of Technology. He was a dedicated teacher and deeply valued his interactions with students and colleagues.

Carl loved music and was a member of the Choral Art Society of New Jersey and the Oratorio Singers of Westfield. He also loved mountains, and in his retirement he explored many national parks by RV, often blogging about his trips. Carl enjoyed volunteering with the Agape Community Kitchen and was a board member of the Cowperthwaite Square Condominium Association. Carl Bredlau's user friendly e-health calculators are used world-wide by clinical researchers and individuals who want to improve their well-being. His creativity, his ingenuity, his entire spirit



continues to impact humanity through his beautifully crafted personalized software. Other interests included amateur radio, computers, and motorcycles. Most of all, he enjoyed spending time with his family and friends.

Born in Long Branch, he grew up in Mountainside and moved to Westfield in 1974. Carl is survived by his wife, Janet; his daughters, Susan Bredlau of Decatur, GA and Elizabeth Bredlau and her husband Jason Strawsburg of Maplewood, NJ; his

beloved grandsons, Ryan and Amiere Strawsburg-Bredlau; and his brothers, Peter Bredlau and his wife Margie Sisson of Colorado Springs, CO and Paul Bredlau and his wife Kathy, of Hayes, VA. Carl is also survived by many nieces and nephews and many good friends. We extend our condolences to the family. ♦

New Home for Telescope Night

By Marc Favata, Mathematical Sciences

On Thursday evenings our campus hosts a weekly Public Telescope Night. This provides the Montclair State community and its neighbors a chance to see the craters of the Moon, the rings of Saturn, the moons of Jupiter, and other celestial objects. Since its inception over 30 years ago by Dr. Mary Lou West (Professor Emerita, Mathematical Sciences), Public Telescope Night has occupied the area directly in front of Richardson Hall. With the completion of the new Center for Environmental and Life Sciences (CELS) and the surrounding landscape, it has now moved a short distance away—to the center of the Science Quad. This space was specifically designed to serve as the new home to telescope night. It features a concrete area adjacent to the main walkway directly opposite the CELS front entrance. Nearby light posts are equipped with electrical outlets for powering the telescopes' tracking motors, eliminating the need to snake extension cords



into Richardson. The overall view of the sky on the Science Quad walkway (left) is much expanded in comparison to our former location. Most importantly, the lights outside CELS can now be shut off during telescope night, greatly improving sky visibility. The telescope gathering

area and lighting modifications were made possible by a generous gift from Dr. West. Benches and a plaque recognizing Dr. West's support will be added soon.

You may also have noticed that the metal sculpture formerly from the area near Café Diem now rests next to the

CELS front entrance. The iron tripod suspends what appears to be an abstract mass of aluminum over a concrete disk. The sculpture actually represents the constellation Ophiuchus. In May and July the Sun casts a shadow on the concrete disk depicting the "serpent bearer." The sculpture was designed in 1988 by Mac Adams (a former MSU faculty member) with the assistance of Mary Lou West.

Public Telescope Night runs from 8pm-9pm every clear Thursday when school is in session. On November 19 it

begins a bit earlier at 7:30pm so young children have the opportunity to see the Moon. In addition to students stopping by on their way to class, telescope night has been popular with elementary school groups, MSU astronomy students, and residents of surrounding towns.



Telescope Night would not be possible without the voluntary contributions of members of the North Jersey Astronomical Group (NJAG) who are responsible for setting up and running our Telescope Nights. Anyone interested in astronomy is welcome to join NJAG. The club also organizes a monthly lecture series. More information can be found at <http://pages.csam.montclair.edu/~west/njag.html>.

We hope you'll have a chance to stop by to look through our telescopes. If you have never seen the Moon, Jupiter, or Saturn through a telescope, you are missing an impressive experience. Bring your family and friends and enjoy these sights and more. See you Thursday night! ♦

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CSAM Welcomes Let's Talk

By Jude Uly, CAPS

"Let's Talk", a program that provides easy access to informal, confidential one-on-one consultations with CAPS counselors, has added two new sites to their lineup. One of the new sites (Thursdays from 1:00pm - 2:30pm) is at our newly relocated CSAM Student Services Suite in Mallory Hall room 116B. The other is at Stone Hall room 217A on Wednesdays from 10:30am-12:00pm. Let's Talk is joining forces with CSAM Academic Advising and Career Services to provide a well-rounded environment for students.

Let's Talk has been in existence at MSU for over 6 years. It allows for students to speak to counselors outside of the counseling center regarding any concern they wish. It is free and confidential (not part of the student's record). Students simply show up and meet individually with a counselor. Walk-in hours are held five days a week at five other sites on campus. For more information about Let's Talk, including times and locations and other CAPS services, please visit our website at <http://montclair.edu/caps>. ♦

MSU and NJDEP Collaborate on Woodrat Project

By Randall Fitzgerald, NJ School of Conservation

Funded by Montclair State University PSEG Institute for Sustainability Studies, I collaborated with wildlife biologists Gretchen Fowles and Sharon Petzinger from NJDEP's Division of Fish and Wildlife, Endangered and Nongame Species Program to ensure that New Jersey's last remaining population of Allegheny woodrats (*Neotoma magister*) survive.

The Allegheny woodrat (pictured below) is a medium-sized rodent that



occurs along the Appalachian Mountain range from Tennessee through northeastern Pennsylvania and northern New Jersey. Although they previously ranged into New York, they have been extirpated from that portion of their range. Today in New Jersey, the last remaining population of Allegheny woodrats exists at a single location along the Hudson River among the large boulders found at the base of the Palisades.

Woodrats prefer rocky landscapes at the base of cliffs and talus slopes. They require numerous deep crevices and overhanging rock ledges to provide cover and nesting sites. The surrounding vegetation is usually deciduous forest that is comprised of oaks, birches, and a variety of shrubs and herbaceous plants, where the woodrats are important agents of seed dispersal. This vegetation community provides the woodrat with their diet: a variety of fruits, berries, tree buds,

seeds, nuts and acorns. Primarily nocturnal, they collect food items at night and store them in food caches near their nests. Nicknamed "packrats," the Allegheny woodrat is known to collect all kinds of items from their surrounding environment including bones, feathers, foil, coins, nails, rubber bands, shotgun shells, and even dung from various other species.

The species faces several threats that have combined to push the woodrat toward extinction. Suburban sprawl has fragmented northeastern forests reducing suitable habitat to a fraction of its historic norm, and gypsy moth infestations have impacted the abundance of traditional forest foods like acorns. More importantly, this new human dominated landscape brings the remaining woodrats into contact with populations of raccoons that thrive in the presence of humans. A parasitic roundworm (*Baylisascaris procyonis*) carried by raccoons can be passed on to woodrats with dire results.

Raccoon roundworm may be the single most important factor contributing to the decline of this species in New Jersey. Roundworm eggs are passed on to the woodrats when they come in contact with the feces of raccoons that are infected with the roundworm. While not lethal to the raccoons, the roundworm quickly kills infected woodrats. In an effort to save the last remaining population of woodrats in New Jersey, I have been working with Ms. Fowles to rid the local raccoon population of this parasite. Bait dispensers have been placed in the field and provisioned with raccoon bait that contains the de-worming medicine. MSU/NJSOC AmeriCorps members Kate Hausman and Amanda Menasicon, have been instrumental in helping with the project by making the medicinal baits at the School of Conservation and provisioning and monitoring

the bait dispensers to ensure the baiting program remains operational.

Another more insidious threat to the woodrat population in the Palisades is the loss of genetic diversity. Genetic analysis of the population in recent years has indicated that genetic diversity is decreasing, suggesting that dwindling numbers of animals and the lack of immigrating new animals has led to inbreeding. This loss of genetic material can result in the population becoming more vulnerable to pathogens and to changes in the environment, and could lead to the collapse of New Jersey's last remaining population.

In June of 2015 a team was put together consisting of myself and a number of biologists from the NJDEP, the Pennsylvania Game Commission, Indiana University of Pennsylvania, Union College, and Delaware Valley University. The goal of the team was to lay out a plan for the 'genetic rescue' of the Palisades population. After considering a number of different strategies for increasing genetic diversity within the New Jersey population, the team decided on the trans-location of sub-adult woodrats from central Pennsylvania to the Palisades.

In August, two sub-adult woodrats were captured in Pennsylvania and subsequently released into the Palisades population. Both have been monitored with radio-telemetry and camera traps, and are assimilating into the population nicely. With a little luck, these two individuals will breed this coming spring, increasing the genetic diversity of this fragile population of woodrats. The fate of New Jersey's woodrats are in good hands as the NJDEP and MSU continue to work together to insure their survival for many generations to come. ♦

Treat and Reduce Obesity

By Diana Thomas, Mathematical Sciences

The Center for Quantitative Obesity Research has recently relocated to Richardson Hall 267 and consists of a waiting room, two patient exam rooms, and a records room. In addition to our new location, we have also acquired state of the art technology to help our community reach their health weight goals. We will soon be home to a snazzy portable device that assesses resting metabolic rate by measuring oxygen consumption called the BodyGem. We also have on loan, BiteCounters, a device that tracks the number of bites you take per day and has goal setting capabilities, and research grade body movement monitors called SenseWear. The SenseWear armband is one of the most heavily tested devices which measures heartrate, perspiration, and motion through a tri-axial accelerometer.

Our clinic also utilizes a portable ultrasound that can track changes in tissue quality during weight change. There are twenty Center students from Biology & Molecular Biology, Chemistry, the Mathematical Sciences, and Health and Nutrition Sciences who are happy to meet with you, set your weight loss goals, and ensure you reach them by using the most evolutionary personalized information provided by technology and mathematics today! Contact us at weight-loss@mail.montclair.edu to make your appointment.

The Center for Quantitative Obesity Research has been jumping with activity on all fronts. The science we develop at the Center remains at the forefront of the new medical frontier utilizing telemedicine through smart phone technology, informing preven-

tion and treatment through enhanced magnetic resonance imaging and 3D ultrasound, understanding tissue changes in injured patients, and discovery of biomarkers through free radical chemistry and mass spectrometry. Collectively, Center faculty have published 14 peer-reviewed publications over the past academic year. We continue to engage students in a unique research and team experience where disciplines know no bounds. Center students work together move forward ideas.

Center students are trained to apply their science background to inform legislation. Two of our Center students, Ann Nduati and Blanca Mendez recently met in Washington D.C. with legislators as part of the Obesity Society's effort to support the Treat and Reduce Obesity Act. ♦

Summer in Cape Cod

By Luis Germano Biolchi, Visiting Student

When I got accepted to Montclair State University I was not expecting such a nice environment and so many amazing professionals. It took me some time to get used to working and learning in English, but afterwards my stay at MSU could not have been better. I am a Brazilian who was able to study abroad for a year under a scholarship from the Brazilian Scientific Mobility Program.

After surviving the winter (yes, it was extremely hard for a Brazilian that has never seen snow before), I contacted Dr. Jorge Lorenzo-Trueba in the Department of Earth and Environmental Studies in order to find out if there were any projects regarding coastal processes being conducted at the University. This is something that had interested me for a while, since my major in Brazil is Oceanography and I have taken classes about coastal morphodynamics and sedimentology. We started meeting every week to talk about projects and how and where to conduct research in a productive way. Dr. Lorenzo-Trueba told about a Summer Student Fellowship program at Woods Hole Oceanographic Institution (WHOI) on Cape Cod. With his help, and also the support of Drs. Mark Chopping, Tanya Blacic, James Brown, and Pascale LaFountain, I applied for the fellowship. As a result of the review of my application, Dr. Andrew Ashton



Biolchi at lab in Woods Hall

in the Department of Geology and Geophysics at WHOI offered me a guest student position for the summer. I promptly accepted.

During the three months at WHOI, Dr. Ashton and I studied how different wave climates affect alongshore sediment transport (AST) and shoreline instability. Our main focus was to understand how gradients in AST along the U.S. East Coast influence shoreline evolution (mainly erosional or accretional tendencies). The work I've been

doing involves MatLab modeling, database analysis, and basic imagery processing. We have been getting promising results based only on our first-order approach that fit long-term evaluations. All the knowledge I have accumulated during college both in Brazil and at MSU has played a significant role in my work at WHOI. Spending the summer on Cape Cod is an amazing experience because I have been able to enjoy nature and conduct research in an extremely qualified institution.

I thank MSU for accepting me, my supportive professors, the Brazilian government and particularly Dr. Lorenzo-Trueba, who showed me how rewarding it is to work alongside experienced scientists and having fun doing so. ♦

In preparation for SC15 Poster Competition

By Michael Estwanick, BS'15

In Spring 2015, I was fortunate to participate in the Supercomputing 15 Poster Workshop at Lawrence Berkeley National Laboratory (LBNL). LBNL is a Department of Energy funded facility and home to 13 Nobel Prize winners. The workshop was designed to help aspiring presenters better their research posters in preparation for SC15 Poster Competition in Austin, Texas.

My participation in the workshop was based on work done under a Sokol Faculty/Student Research award project with Dr. Stefan Robila in the Department of Computer Science's Computational Sensing Lab. In the project we designed, implemented, and tested novel parallel algorithms for Graphical Processing Units (GPU) to be used for hyperspectral imagery.

After flying into San Francisco and a short train ride on the BART I found myself outside of one of the most fa-

mous computing universities, UC Berkeley. The lab was now just a shuttle ride away. Upon arrival to LBNL, I was astonished to see that the entire facility was built into the side of a mountain overlooking the UC Berkeley campus and Northern San Francisco. The workshop itself took place inside a large conference room adjacent to the NERSC supercomputer, a computer responsible for tackling many of the most prominent physics, chemistry and biological issues today. The only thing more captivating than the facility was the workshop attendees. I was one of 12 participants (and one of two undergraduate students) from places as far as the United Kingdom, South Africa, Puerto Rico, Argentina and Canada. The workshop participants came from various computational backgrounds and levels of education.

The workshop was led by Dr. Tony Drummond a Staff Scientist at LBNL.

He conducted exercises that allowed us to demonstrate and critique one another's research poster. This was accomplished through a series of tasks spanning two days; the tasks consisted of 30 second elevator pitch, 2 minute poster introduction, Power-Point presentations and finally a mock conference. The workshop concluded with a presentation from the director of the LBNL concerning the future of high performance computing known better as HPC.

Everything about my experience at the SC15 poster workshop is invaluable, from the view to the people. During my stay at LBNL I have made connections that will last a lifetime, most of whom I am still in contact with today. After the workshop I have contacted many of my workshop colleagues for information regarding higher education and assistance with my research poster. ♦

Unprecedented Shoreline Migration Rate

By Jorge Lorenzo-Trueba, Earth and Environmental Studies

Despite the economic and ecological importance of barriers, and their near ubiquity along the US East and Gulf coasts, there exists a critical gap in understanding of how barrier systems respond to coastal change generally, and sea-level rise and changes in storm patterns specifically. Dr. Lorenzo-Trueba, together with researchers from Rice University, has conducted a number of field campaigns over the past year in Follets Island, a transgressive barrier island located on the upper Texas coast. This work aims to enrich our understanding of how barrier systems have responded to past sea-level rise, and how they may respond in the future to accelerated sea-level rise. Specifically, two key objectives of the field campaigns were to determine the thickness of sand composing Follets Island and the adjacent shoreface, and to compare current rates of barrier erosion to the geological rate to assess the magnitude of change over time.

Cores that penetrated Follets Island revealed that the sand that composes the island is less than ~2 m thick, which makes it the thinnest barrier island on the Texas coast. Likewise, cores from the upper shoreface sampled no more than 1.5 m

of sand, and shallow seismic profiles indicate very thin to no lower shoreface deposits below approximately 4 meters water depth. This is in stark contrast to other portions of the Texas coast where shoreface deposits are thicker and extend to the toe of the shoreface, between approximately 8 to 12 meters water depth. These observations suggest that the barrier has been sand-starved in historical time. Even at the current rate of shoreline retreat and loss of sand from the longshore transport system through overwash, it seems unlikely that Follets Island will survive the

end of this century, but this also depends on the number and magnitude of storms that will impact the island during this time. Regardless, the role of the island as a natural barrier to storm impact on inland areas will significantly diminish. The volume and flux estimates indicate that sustaining the island by beach nourishment would require volumes of sand that currently do not exist in the nearshore zone as little sand exists seaward of the upper shoreface to a distance of approximately 40 kms offshore. ♦



Rice U. Prof. J. Anderson and Ph.D. student C. Odezulu preparing core sampler, photo by J. Lorenzo-Trueba.

Student News

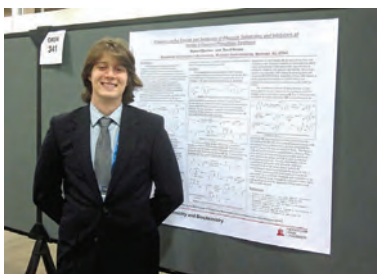
At the 249th American Chemical Society National Meeting and Exposition, undergraduate students **Maryam Abdulsalam** and **Sandeep Suresh** (Kasner Group) presented their work on computational studies of the relationships between structure and energy of substituted six-member ring. **Maryam Abdulsalam** and **Rabih Balilli** presented on systems and the structure of glucose (D-glucopyranose) in a variety of solvent systems. Rabih (BS'15 Biology) is



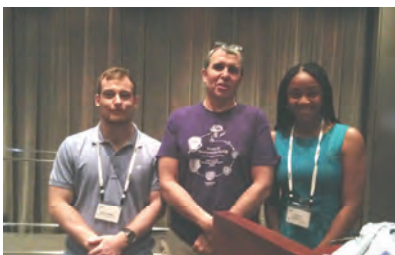
L to R: Suresh, Abdulsalam & Balilli at the Meeting in Denver

currently enrolled in Dental School at Rutgers University. Sandeep (BS'15 Biology) is attending the Post-Baccalaureate Pre-Medical program at the University of Florida. Maryam is continuing her studies in Biochemistry.

Robert Barrows presented a poster at the 249th American Chemical Society National Meeting and Exposition describing his progress on developing new methods for the synthesis of substrate analogs of the enzyme indole-3-glycerol phosphate synthase (IGPS). The new compounds being prepared in the Konas lab using Robert's methods will be used in collaboration with Professor Nina Goodey to understand more about the details of the IGPS protein and its chemistry. Robert (BS'15 Chemistry) is now a Ph.D. student in organic chemistry at Rutgers University.



Students **Schyler Edwards** and **Alex DeVito**, with Dr. Sandra Adams, attended the Howard Hughes Medical Institute (HHMI) 7th Annual Symposium of the Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science (SEA-PHAGES) Symposium held at Janelia Farm Research Campus. Schyler and Alex presented the research completed by MSU's fourth cohort of the SEA-PHAGES program. They had the opportunity to meet the Symposium's keynote speaker, physicist and sharer of the 2014 Nobel Prize in Chemistry for the development of super-resolved fluorescence microscopy, Dr. Betzig.



L to R: DeVito, Betzig and Edwards

The MSU **Environmental Club**, led by **Stephano Castro**, received honorable mention for Innovative Sustainability Initiative from the US Green Building Council of New Jersey Chapter for its submission of the Montclair State

University Sustainability Center: Inspired by Earthship.

Biology Science Education masters student 1st Lt. **Debra Cho**, U.S. Army (2nd row center) is one of ten recipients of the 4th Annual New Jersey Heroes Heart of a Hero Scholarship announced by First Lady Mary Pat Christie. Debra's experience as a Biology Teacher with the Teach for America program at Newark Prep Charter School has inspired her to become a leader in urban education and to help students achieve educational equality. Each of the ten



NJ First Lady Mary Pat Christie (front right) and Charlene Brown (front left), ATT VP, NJ External Affairs, congratulates Scholarship recipients.

recipients will receive a \$5,000 scholarship award to help advance post-secondary education or vocational training.

Along with Dr. Mark Favata, students **Lita De La Cruz** and **Goran Dojcinoski** assisted with a LIGO exhibit during the NYC 2015 World Science Festival.

Master's student **Goran Dojcinoski** gave an oral presentation on his thesis work at the 2015 American Physical Society Meeting in Baltimore titled "Nonlinear gravitational-wave memory from merging binary black holes."

Giancarlo Labruna won the Outstanding Undergraduate Oral Presentation Award entitled "Maximum or minimum Randić connectivity indices among trees attached to a hexagon" at the Garden State Undergraduate Mathematics Conference.

In April, graduate students **Kristy Mulroy**, **Thalia Ramirez**, **Mike Young**, and **Carola Springer** served as judges at Grover Cleveland Middle School's first Eighth Grade Science Fair. They judged over 100 research projects, interacted with students, and gave out awards in four categories.

SHIP student **Blake Moore** gave an oral presentation on "Secular gravitational-wave phasing to 3PN order for low-eccentricity inspiraling binaries" at the 2015 American Physical Society Meeting in Baltimore.

Eleanor Ojinnaka a student in the Chemistry BS/MS program has received a \$5,000 scholarship from the Executive Women of New Jersey (EWNJ) *Continued on page 14*

Varde: Senior Researcher at Max Planck Institute

Based on her expertise in the Data Mining area, Dr. Aparna Varde was invited to Max Planck Institute for Informatics in Saarbruecken, Germany (MPII) as a Senior Researcher. It is a part of the premier Max Planck Gesellschaft (Society) that comprises almost a hundred Max Planck Institutes across the world. Dr. Varde worked in the Databases and Information Systems Group (D5) headed by Dr. Gerhard Weikum, a Research Director at MPII. Dr. Weikum, a well known researcher in the Data Analytics area worldwide.

While at MPII this summer, Dr. Varde gave a talk on “Knowledge discovery in environmental management” that described her multidisciplinary research with PhD students and colleagues at MSU including Michael Pawlish, Xu Du, Robert Taylor and Stefan Robila. She also worked with MPII PhD students Niket Tandon and Sreyasi Nag Chowdhury in

the area of Common Sense Knowledge (CSK) and they initiated a project along with Dr. Weikum on CSK in Domain Specific Knowledge Bases. This work, started in August 2015, is ongoing through joint research. This is the second visit by Dr. Varde to MPII. The first one in May to July 2008 initiated work in the area of Terminology Evolution in Web and Text Mining. It propagated further research with her MS Computer Science students at Montclair including Amal Kaluarachchi and Debjani Roychoudhury and led to publications in premier venues such as AAAI 2010 (Association for Advancement of Artificial Intelligence), ACM CIKM 2010 (Conference on Information and Knowledge Management) and ACM EDBT 2011 (Extending Database Technology) with MPII researchers as co-authors. In addition, Dr. Varde gave tutorials with MPII colleagues as co-authors at DASFAA 2009 and 2015 (Database Systems for Advanced Applications) and ACM EDBT 2011 and authored journal articles with them in ACM SIGKDD Explorations 2012 and 2014 (Special Interest Group for Knowledge Discovery and Data Mining) and ACM SIGMOD Record 2010 and 2013 (Special Interest Group on Management of Data). Her co-authors on these works include Fabian Suchanek, Pierre Senellart and Gerard de Melo. Her earlier MPII visit was very prolific and it is anticipated that the current one will also lead to excellent publications and presentations as she continues to collaborate with researchers at MPII. ♦



Varde at entrance to MPII

Kudos

Dr. **Lisa Hazard** received a \$3500 New Jersey Conserve Wildlife Matching Funds Grant for “Environmental Correlates of Ranavirus Disease Distribution in NJ” with Co-PI Kirsten Monsen from the New Jersey Department of Environmental Protection, Division of Fish and Wildlife.

Dr. **Mark Chopping** with collaborators R. Duchesne-Onoro, (University of Wisconsin - Whitewater), C. Schaaf (University of Massachusetts Boston), K. Tape (University of Alaska, Fairbanks) and Z. Wang (NASA/GSFC) received a \$148,357 three-year grant titled: “Changes in Shrub Abundance in Arctic Tundra from the Satellite High Resolution Record for the Arctic-Boreal Vulnerability Experiment and Impacts on Albedo.” This NASA-sponsored project supports the Arctic-Boreal Vulnerability Experiment (ABOVE) campaign. It will use high resolution imagery acquired by Earth-orbiting satellites to assess the direction and magnitude of changes in shrub cover and aboveground biomass in Alaskan and Canadian Arctic tundra over a 10- to 15-year period. NASA's Arctic-Boreal Vulnerability Experiment Campaign (<http://above.nasa.gov>) will take place in Alaska and western Canada during the next 5 to 8 years. ABOVE will seek a better understanding of the vulnerability and resilience of ecosystems and society to this changing environment, as climate change in the Arctic and Boreal region is unfolding faster

than anywhere else on Earth, resulting in reduced Arctic sea ice, thawing of permafrost soils, decomposition of long-frozen organic matter, widespread changes to lakes, rivers, coastlines, and alterations of ecosystem structure and function.

Drs. **Yang Deng**, **Dibyendu Sarkar**, and **Pravin Punamiya** received a \$39,200 subaward from Manhattan College for the University Transportation Research Center-funded “Development of a New, Effective and Low-cost Mulch Adsorption Material for Sustainable Management of Polluted Road Stormwater in Highly Urbanized Areas.” Drs. Deng, Sarkar, and Punamiya will play critically important roles in developing a new, low-cost, and “green” mulch for mitigation of stormwater pollutants on urban roads.

NSF S-STEM grant titled “Opening Pathways, Engaging, and Networking in Chemistry in Northern New Jersey (OPEN-NJ)” was awarded to PI: **Nina Goodey**, with Co-PIs: **M. Kasner**, **J. Siekierka**, **K. Herbert**, and **J.A. Kruminis**. The \$ 603,999 award is for July 2015 to June 2020.

Nicole Panorkou was awarded a Career Development grant from Montclair State University of \$3,075 to conduct research on the teaching and learning of dynamic measurement. ♦

Faculty News

Dr. **Sandra Adams** presented the “In vitro synergistic antiviral activity of black tea theaflavins and acyclovir on Herpes Simplex Virus Types 1 and 2 in A549 Cells” (co-authors Cody Berkefeld and Lee H. Lee) at Howard Hughes Medical Institute (HHMI) 7th Annual Symposium of the Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science (SEA-PHAGES) Symposium.

M.T. Kousoulis and Dr. **G.E. Antoniou** presented "Realization of 4D ladder structured digital filters" at the IEEE (Xplore) 6th IEEE Latin-American Symposium on Circuits and Systems.

Dr. **Mark Favata** presented an invited plenary talk, "Modeling relativistic orbits and gravitational waves," at the American Astronomical Society's Division on Dynamical Astronomy meeting and two contributed talks, "Modeling the nonlinear gravitational-wave memory" at the 11th Amaldi Conference on Gravitational Waves and "Spin effects in the nonlinear gravitational-wave memory from inspiralling binaries" at the 2015 American Physical Society Meeting. He organized an exhibit on gravitational waves and the LIGO project at NEAF—the North East Astronomy Forum at SUNY Rockland Community College. This is the world's largest exhibition for the amateur astronomy community. The exhibit, assisted by MSU Physics students Lita De La Cruz, Goran Dojcinoski, Nicholas Drywa, Kevin Johansmeyer, and Blake Moore, involved several tables displaying a variety of videos, animations, video games, hands-on exhibits, brochures, stickers, and other information.

Dr. **Huan Feng** was selected to participate in US Department of Energy's Visiting Faculty Program and to conduct research at Brookhaven National Laboratory in summer 2015. The pro-

gram was supported by the U.S. Department of Energy, Office of Science, Office of Workforce Development for Teachers and Scientists (WDTS) under the Visiting Faculty Program (VFP). Along with colleagues W. Zhang, W. Liu, L. Yu, Y. Qian, J. Wang, J.-J. Wang, C. Eng, C.-J. Liu, K.W. Jones, R. Tappero, he presented “Synchrotron radiation measurement for metal distributions in wetland plant root system” at the 2015 NSLS-II and CFN Joint Users' Meeting.

Dr. **Lisa Hazard** co-edited the special issue of *Herpetological Conservation and Biology* 10 (Symposium): Head-starting in turtles and tortoises and was an invited contributor. She was presented with the Robert C. Stebbins Research Award by the Desert Tortoise Council, for “significant contribution to the preservation or knowledge of desert tortoises.” She co-presented the invited keynote address, “Nutritional value of desert tortoise foods,” with collaborator Ken Nagy (co-authored with B. Henen, P. Medica, C. Meienberger, D. S., D. Vyas, I. Wallis) at the 40th annual symposium on Desert Tortoise Council.

Dr. **Aiuhua Li** was appointed new director of the NSF funded LSAMP program. Before her appointment, Drs. Quinn Vega and Carlos Molina had served as directors. Graduate student, **Carolyn Mathieu** from the Department of Chemistry, is the new program assistant. This year's cohort consists of 6 mentors and 16 scholars. Dr. Li was re-elected to serve as a council member of the national organization Council on Undergraduate Research (CUR) for a 3-year term, June 2016-May 2018. In the summer she was invited to give 10 colloquia presentations on research and educational topics to five universities through out China. In April, she gave an invited presentation, “Graphical properties of the bipartite graph derived from $\text{Spec}(Z[x]) \setminus \{0\}$ ” in South Regional Algebra Confer-

ence (co-authored with Christina Eubanks-Turner of Loyola Marymount University). In March, Dr. Li gave a joint seminar talk, “Prime spectra of certain two dimensional integral domains – History and new development” at the Karl-Franzens University and the Graz University of Technology, Graz, Austria. She was also invited as a guest lecturer on “Interlace polynomials of certain graphs” at St. Michael's College (co-authored with a former MSU graduate student, Christian Hyra). Dr. Li reviewed two articles for Mathematics Reviews and refereed two articles for the journals: *Complex Analysis and Operator Theory* and *Primus*.

Dr. **Aihua Li**, together with CSAM faculty members Drs. **Dajin Wang** and **Haiyan Su**, participated in a Chinese American Visiting Scholar League sponsored by the Ministry of Education of China and the Consulate General of China in New York. The league visited Northeast University of China (NEU) and gave a series of lectures to the faculty and students of NEU.

Dr. **Carlos Molina** obtained a short-term fellowship grant to work with Dr. Walter Keller of University of Graz in Austria (UniGraz). The visit was to establish partnerships with UniGraz with the hopes of starting a long-standing, sustainable program. During Dr. Molina's fellowship in Graz he works on developing models on how protein modifications like ubiquitination and phosphorylation affect the structure of transcription factors; it's binding to DNA and ultimately gene expression. The visit to UniGraz fits with the overall objectives of exposing MSU faculty, and by association students, to world-renowned universities. It is also providing the opportunity for MSU faculty to interact with other faculty and further develop cross-cultural professional contacts. With this visit Dr. Molina expect to be able to span his research agenda and establish new scientific

Continued on next page

Continued from previous page— Faculty News

collaborations. The travel was funded by a grant from UniGraz and travel funds from CSAM Dean's office and the Department of Biology at MSU.

Dr. **Eileen Murray** presented work at the 16th Biennial EARLI conference for Research on Learning and Instruction: Transition from initial teacher education into the teaching profession," along with mathematics educators from Germany and Norway.

At the 16th Biennial EARLI conference for Research on Learning and Instruction, Drs. **Nicole Panorkou** and **S. Greenstein** presented a poster, "A learning trajectory for transformation-based reasoning in geometry" and a paper titled "Using the knowledge quartet as a tool for introducing the mathematics teaching practice" together with M. Petrou. Also, Panorkou and Jennifer Kobrin of Pearson Learning presented "Using a mathematics learning trajectory to enhance teaching practices through

formative assessment" at the New Jersey Association of Mathematics Teacher Educators Ninth Annual Conference.

At the 2015 Geological Society of America Annual Meeting, post-doc **Pravin Punamiya**, along with Drs. R., Pal, Y. Deng and D. Sarkar, presented "Ferrate [Fe(VI)]-driven remediation of arsenic-contaminated groundwater: A scaled-up reactor study with contaminated groundwater and aquifer materials." He also presented, with R. James, L. Zheng, P. Das, R. Datta, and D. Sarkar, "Characterization of aluminum-based drinking water treatment residuals collected from various parts of the United States" and with N. Jamil, R. Datta and D. Sarkar, "Antimony removal from aqueous solutions: Potential for aluminum-based drinking water treatment residuals as a "Green" sorbent," and "Short-term and long-term effects of hydro-raking on the trophic level of Lake Wapalanne and Potential of Vetiver Grass for phos-

phorus removal (co-authored by S. Panja, K. Mendoza, U. Tripathi, P. Das, R. Datta, and D. Sarkar).

Dr. **Aparna Varde** recently presented "Knowledge discovery in environmental management" at the Max Planck Institute for Informatics and "Multicity simulation with data mining for urban sustainability" at the Bloomberg Data Science Labs. She served as: Journal Reviewer for IEE-E's TKDE (Transactions on Knowledge and Data Engineering), ACM's TKDD (Transactions on Knowledge Discovery and Data Mining), Springer's DMKD (Data Mining and Knowledge Discovery); Program Committee Chair of PIKM 2014: PhD Workshop in ACM CIKM 2014; Program Committee Member in IEEE's ICDM 2015, 2014 (International Conference on Data Mining), ACM's CIKM 2014, 2015 (Conference on Information and Knowledge Management). ♦

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for assistance to non-traditional graduate school students attending New Jersey colleges and universities and a \$1,000 2015 ASBMB Undergraduate Research Award for work on "Function of Soil Enzymes In Microhabitats Of Heavy Metal Contaminated Soil."

Chemistry majors **M. Okondo** and **S. Cho** with Dr. N. Goodey presented a poster, "Effects of allosteric mutations on the conformational equilibrium of DHFR," at the 2015 ASBMB Annual Meeting.

Rob Rexler Baello and **Donald Coleman** won the Outstanding Undergraduate Poster Award at the Garden State Undergraduate Mathematics Conference for "Design of knapsack cryptosystems using certain t-superincreasing sequences."

Karla Sanchez, Romy Perez-Abraham, with Drs. U. Gubler, J. Siekierka, and N. Goodey presented a poster on "Expression and purification of a potential antifolate target, dihydrofolate reductase from *B. malayi*" at the 2015 ASBMB Annual Meeting.

James Stamos, 2015 Cum Laude graduate in Molecular

Biology with a minor in Chemistry, has received a Post-Baccalaureate Intramural Research Training Award from the National Institutes of Health (NIH). James was mentored in research by Drs. Sandra Adams and Lee Lee, Department of Biology. He will spend 1 or 2 years performing full time research with Dr. McBride, Chief of the DNA Tumor Virus Section. Dr. McBride's research focuses on the understanding the mechanisms by which human papillomavirus genomes are successfully established, maintained and partitioned in persistently infected keratinocytes.

James Stamos and **Shivani N. Patel**, with Dr. Sandra Adams, presented their research on the inhibition of Herpes simplex virus (HSV) by polyphenols at the 34rd Annual Meeting of the American Society for Virology. Stamos presented a poster on the "Inhibition of HSV-2 infection in A549 and vero cells by EGCG-Stearate" (Mentors Lee H. Lee and Sandra D. Adams). Patel presented a poster "Green tea polyphenols, EGCG and EGCG-Stearate as potential inhibitors of Herpes simplex virus – 1 in human epithelial A549 cells" (Mentors Lee Lee and Sandra Adams). ♦

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