

CONVOCATION AWARDS CEREMONY AND HARRIET SHRIVER ROGERS LECTURE

MONDAY, MAY 5, 2014, 3 P.M.
SHRIVER HALL, HOMEWOOD



CONVOCATION AWARDS CEREMONY AND HARRIET SHRIVER ROGERS LECTURE



Harriet Shriver Rogers Lecture

This endowed lectureship was established in 1991 by Dr. William H.B. Howard in honor of his mother, Harriet Shriver Rogers, whose support made it possible for him to matriculate at Johns Hopkins following his military service.

Mrs. Rogers was born and lived most of her life on her family's 250-acre farm in Harford County. Home-schooled by her mother through elementary school, Mrs. Rogers graduated from Garrison Forest School in 1926. She married William H.B. Howard in 1930, and after his death in 1967, she married C. Holden Rogers.

Throughout her life, Mrs. Rogers pursued a variety of activities. Her lifelong interest in horses and ponies began with the raising of Shetland ponies as a young girl. She wrote *If You Had a Pony* in 1960 to teach children how to take care of their animals. She was also involved in providing ponies to the Maryland Special Olympics. During the Kennedy administration, she served on the President's Commission on Children and Youth. Later in life, Mrs. Rogers competed in the Senior Olympics on the state and national levels, winning medals in several track and field events.

In the final year of her life, Mrs. Rogers was nominated for the Shetland Hall of Fame and named a Harford County Living Treasure. She died in 1993 at the age of 84 at her farm. In addition to her son, William, Mrs. Rogers also has a daughter, Frances H. Flatau.



Michael Baltzell '71

President of Baltzell Management Consulting LLC



B. Michael (Mike) Baltzell '71 is president of Baltzell Management Consulting LLC. He provides consulting services to companies in Canada, the Middle East, and China.

An expert in the global aluminum industry, Mike began his career in 1971 as an industrial engineer with the Eastalco Aluminum Co., then owned by Howmet Corp. in Frederick, Maryland. He was named production services superintendent in 1977, potline superintendent in 1981, and senior vice president and general manager of Eastalco in 1987. In 1994, he moved to Norcross, Georgia, and was elected president of Alumax Primary Aluminum Corporation.

Mike then joined Alcoa World Alumina in July 1998, following Alcoa's acquisition of Alumax Inc. He relocated to Perth, Australia, and became president of Alcoa World Alumina Australia and managing director of Alcoa of Australia in December 1998.

In December 2001, he was appointed to the position of president, Primary Growth at Alcoa. In this capacity, he was responsible for developing organic growth opportunities in the Primary Group from the time of initiation to startup. He developed and staffed the Growth Organization, and he was the lead negotiator for the Alcoa Fjarðal aluminum smelter in eastern Iceland.

Mike retired in September 2005 after more than 34 years of service in the aluminum industry. After retirement, Mike consulted exclusively with Alcoa in the areas of smelting technology, raw material supply strategy, and due diligence for smelters until September 2007.

Mike received his bachelor's degree in operations research and industrial engineering from Johns Hopkins University in 1971, and a master's in operations research from George Washington University in 1976. He conducted postgraduate studies at Hood College, and he is a graduate of the University of Michigan Executive Program.

Mike received his bachelor's degree in operations research and industrial engineering from Johns Hopkins University in 1971, and a master's in operations research from George Washington University in 1976. He conducted postgraduate studies at Hood College, and he is a graduate of the University of Michigan Executive Program. He is being presented with the Distinguished Alumnus Award which honors alumni who have typified the Johns Hopkins tradition of excellence and brought credit to the University by their personal accomplishment, professional achievement, or humanitarian service.

GREETINGS

T.E. Schlesinger

Benjamin T. Rome Dean

HARRIET SHRIVER ROGERS LECTURE

Michael Baltzell '71

From Baltimore and Back: What I Learned Along My Journey"

PRESENTATION OF THE DISTINGUISHED ALUMNUS AWARD

honoring

Michael Baltzell '71

DEPARTMENTAL AWARDS

Edward R. Scheinerman

Vice Dean for Education

WHITING SCHOOL AWARDS

Andrew S. Douglas

Vice Dean for Faculty

CLOSING REMARKS

T.E. Schlesinger

RECEPTION

You are cordially invited to join us in the lobby for refreshments following the awards presentation.

DEPARTMENT OF APPLIED MATHEMATICS AND STATISTICS

Presented by Daniel Naiman

Applied Mathematics and Statistics Achievement Award

This award recognizes outstanding achievement by an undergraduate across a broad spectrum of departmental activities including academic performance, research, pedagogy, and leadership.

Theo Huang is a senior from Hillsborough, New Jersey, studying applied mathematics and statistics. He will receive his bachelor's and master's degrees in May, along with a minor in mathematics. Theo has been conducting research with John Wierman, working in the field of percolation theory. He has been a teaching assistant for the Applied Mathematics and Statistics Department in probability, statistics, and discrete math. Theo is also a member of Worthy Life Baptist Church and attends weekly Bible studies and worship services.

John (JD) Luck is graduating with majors in applied mathematics and statistics and neuroscience. JD is an avid Packers fan, having grown up down the road from Lambeau Field in Wisconsin. He works with rodents in the neuroscience lab to better understand how the brain encodes and remembers locations for navigational purposes. JD is a president of the Hopkins Undergraduate Society for Applied Mathematics and will attend the Johns Hopkins School of Medicine next year.

Yevgeniy Rudoy is a senior double majoring in applied mathematics and statistics and mathematics with a minor in computer science. He is the president of JohnCon and an officer of the Hopkins Science Fiction and Fantasy Association. His research projects are in streamed k -medians clustering and probabilistic methods.

Brian Ward is a senior completing the concurrent bachelor's-master's program in applied mathematics and statistics with minors in economics and mathematics. He is from Long Island, New York. He conducts research with Donniell Fishkind on baseball scheduling. Next year, Brian will pursue a PhD in industrial engineering and operations research with a focus on research in financial engineering at Columbia University. His other hobbies are reading and running.

Catherine Wilshusen is a senior from Long Island, New York, majoring in applied mathematics and double minoring in music and computer science. A supporter of mathematics pedagogy, she has worked as a teaching assistant and academic tutor at the Learning Den in addition to serving as co-president of the Hopkins Undergraduate Society for Applied Mathematics. She has pursued research within her department and through Research Experiences for Undergraduates. Also an avid clarinetist, Catherine has studied with Janice Webber at Peabody Conservatory and has performed in the national Lyceum Music Festival. She is co-president of the Homewood Chamber Music Seminar and is a Homewood Arts Certificate candidate.

Naddor Prize

The Naddor Prize is awarded to a non-senior undergraduate majors for significant achievement in departmentally related academic and extracurricular activities. It is named in honor of the late Professor Eliezer Naddor, the first recipient of a PhD in operations research in the United States and a longtime faculty member in the department.

Sherwin Lott is a junior from Swarthmore, Pennsylvania, majoring in applied mathematics and statistics with the intent to minor in computer science and economics. Sherwin completed a full-time summer actuarial internship at Transamerica, passing all three actuarial exams. He is interested in graduate school in economics and has been taking graduate classes in economics and applied math. Sherwin also is a racquet sports enthusiast and enjoys tennis, squash, badminton, and pingpong.

Marni Wasserman is a junior from Commack, New York, majoring in applied mathematics and statistics with a minor in entrepreneurship and management and economics. She is a member of Donniell Fishkind's research team developing Minor League Baseball schedules using combinatorial optimization. She has been a teaching assistant in the Applied Mathematics and Statistics Department. This summer, she will be an actuarial intern to prepare her for an actuary career.

Professor Joel Dean Award for Excellence in Teaching

The Professor Joel Dean Award for Excellence in Teaching is given annually to one or more teaching assistants or faculty members who demonstrate an intense devotion to teaching and a talent for making mathematics more understandable. The award, based on a review of recommendations from students and faculty, was established by Whiting and Krieger School parent Joel Dean Jr. in honor of his father and funded by the Joel Dean Foundation. Joel Dean award recipients receive a \$1,500 prize to honor their work.

Avanti Athreya joined Johns Hopkins in 2011 as a professor of applied mathematics and statistics. She has taught a number of courses, including introductory statistics and stochastic processes. As part of the Gateway Sciences Initiative, she worked with several fellow faculty members to design and implement improvements to statistics pedagogy.

Stephen Chestnut has a master's in applied mathematics, and he joined the Applied Mathematics and Statistics Department in 2010. His current research focuses on approximation algorithms for combinatorial problems and efficient computing with massive data sets. His hobbies are cycling, running, and cooking.

Stephen Lee is a third-year graduate student in the Applied Mathematics and Statistics Department studying graph matching and inference on graphs. Stephen loves sharing the joy of mathematics with his students and would like to dedicate his award to his Aunt Pauline.

Zachary Lubberts is a first-year PhD student in the Applied Mathematics and Statistics Department from Rochester, New York. He has been a teaching assistant for two years and has been doing research with Youngmi Hur on multidimensional wavelet analysis and related topics. Besides mathematics, Zachary enjoys attending plays and playing cards and volleyball.

Jason Matterer is a sixth-year PhD student in the Applied Mathematics and Statistics Department from California. He received a Bachelor of Arts from the University of California, Berkeley. His research interests include analysis of algorithms and statistical learning, and he is working on a project concerning convergence in distribution of the QuickSelect residual. Previously, Jason was a recipient of the Applied Mathematics and Statistics Award for Excellence in Teaching.

Brian Ward is a senior completing the concurrent bachelor's-master's program in applied mathematics and statistics with minors in economics and mathematics. He is from Long Island, New York. He conducts research with Donniell Fishkind on baseball scheduling. Next year, Brian will pursue a PhD in industrial engineering and operations research with a focus on research in financial engineering at Columbia University. His other hobbies are reading and running.

Allen Zhu graduated from Johns Hopkins with majors in biomedical engineering and applied mathematics and statistics in December 2013. Allen is from Fort Collins, Colorado. He has been involved in activities ranging from break dance to research. Allen also volunteered as an organizer for the Johns Hopkins Tutorial Project.

Mathematical Modeling Prize

Each year, the Department of Applied Mathematics and Statistics recognizes high levels of performance by undergraduate individuals or research teams engaged in mathematical modeling, either in applying mathematics to a real-world problem or by participating in the Consortium for Mathematics and Its Applications international mathematical modeling competition.

Sharon Li is a senior from Williamsburg, Virginia, who is double majoring in computer science and applied mathematics and statistics. She is completing her master's in computer science. Sharon is working on a grammar induction project with Jason Eisner and Matt Gormley, and she is part of a team of applied mathematics and statistics students modeling a scheduling problem with Donniell Fishkind. Sharon plans to work at Microsoft in Seattle. Sharon is a member of the Upsilon Pi Epsilon computer science honor society and the National Society of Collegiate Scholars. She enjoys coding, reading, rock climbing, mixing up Rubik's Cubes, and baking.

DEPARTMENT OF BIOMEDICAL ENGINEERING

Presented by Leslie Tung

Linda Trinh Memorial Award



This award is dedicated to the memory of Linda Trinh, Class of 2005, who worked tirelessly through her research and volunteer efforts to improve the human condition. It is awarded to a design team that embodies her spirit, qualities, and accomplishments. This year, two teams are receiving this award.

Design Team Abstract: Every year, 300,000 maternal and 3 million neonatal deaths are caused by complications during and surrounding the time of childbirth. Ninety-seven percent of these deaths occur in the developing world, and most of these complications could be prevented with improvements to clinical care. Tracking the progress of labor allows complications to be identified quickly and treated accordingly and has been shown to significantly reduce adverse outcomes. Of the 14 "essential" parameters of labor, uterine contractions take the longest to measure, coming in at 20 minutes per hour, per patient. Contractions are essential for the diagnosis of complications such as prolonged and obstructed labor. Currently, a midwife must measure the contractions by hand and count their frequency and duration in his or her head. Given the low midwife-to-patient ratio in many clinics, this standard of care is impossible. We have designed a simple, inexpensive uterine contraction monitor for use in the developing world. The monitor reduces the time needed to take the measurement to just two minutes per hour, per patient, and it eliminates the subjective nature of the current measurements. Further, it is extremely simple and intuitive to use, requiring little additional training or troubleshooting. Our device saves midwives time, improves their ability to diagnose complications, and ultimately allows for the reduction in adverse outcomes during challenging deliveries in low-resource settings.

Team Leader:

Megan Lamberti is a graduating senior biomedical engineer from Pennsylvania. She has been working on projects to improve global health since her freshman year at Johns Hopkins, including research and design for malaria diagnostics, HIV and STI prevention tools, a novel system for newborn ventilation, and her current project, a system for improved labor management in low-resource settings around the world. Following graduation, Megan will continue to pursue her passion, engineering, for the improvement of global health.

Team Members:

Saranga Arora is a freshman from Boston, Massachusetts. She is majoring in biomedical engineering and pursuing a minor in entrepreneurship and management.

Marisa Babb is a senior biomedical engineering major from Townsend, Delaware. In addition to working on the design team, she conducts research in Gene Fridman's vestibular neuroengineering lab, helping to create an ionic diode for a neural implant. She is currently a recipient of a technology fellowship. She is vice president of the Society of Women Engineers and president of Ready, Set, Design, a volunteer group mentoring middle school girls.

Jonathan Hunt is a senior from Framingham, Massachusetts, pursuing a double major in biomedical engineering (with a focus in computational biology) and applied mathematics and statistics (with a focus in computational statistics). He has worked with professors in the Biomedical Engineering Department and other departments, using his computational modeling skills at scales ranging from the cellular level of systems biology to the macro level of biomechanics injury mitigation. He is an active leader in campus organizations such as the HOP, Beta Theta Pi, Outdoor Pursuits, Senior Class Gift, and Engineering Ambassadors. Next year, he will attend medical school to pursue a joint MD/MBA degree.

Michael Ketcha is a senior from Cincinnati Ohio, majoring in biomedical engineering with a minor in computer-integrated surgery. He has held internships at the National Cancer Institute and a medical device startup company for the EchoSure Project, and he has done research for the Institute of NanoBioTechnology and the Center for Imaging Science. Michael is involved with Outdoor Pursuits as a whitewater kayaking instructor, and is a member of Alpha Phi Omega and Tau Beta Pi. He plans to pursue a PhD in biomedical engineering.

Kathleen Kusworo is a freshman majoring in biomedical engineering who joined design team 8 this spring. She is an international student from Indonesia.

Ashwyn Sharma is a graduating senior from Overland Park, Kansas, majoring in biomedical engineering. He conducts research under Feilim Mac Gabhann in the Institute for Computational Medicine, studying vascular endothelial growth factor signaling and angiogenic mechanisms. Next year, Ashwyn will attend medical school.

Design Team Abstract: In an effort to streamline the workflow and increase adoption out-of-cold-chain processes by countries' ministries of health, we propose to design and develop a field-suitable and cost-effective device that indicates vaccine stress due to days spent outside the cold chain. A new method of vaccine delivery was recently introduced called the controlled temperature chain (CTC). The controlled temperature chain considers each vaccine's particular heat stability and allows transport and storage outside of the cold chain for a defined period of time and temperatures immediately before administration. While CTC can alleviate the infrastructure problems inherent to the last-mile cold chain system in developing countries, there are still issues with the current CTC vaccination delivery method. The current CTC protocols utilize a manual tallying system to keep track of days vials have been out of the cold chain. However, this protocol is only optimized for single antigen mass campaigns. With the estimated five to six additional vaccines that will receive CTC approval with varying time requirements in the next two years, the current manual tallying system may be untenable due to space constraints on the vials.

The current method of time-keeping during last-mile CTC transportation is unscalable, raising hesitation among ministries of health to transition to using the CTC method. Creating a way to more accurately monitor and record the time vaccines have spent out of the cold chain on a per-vial basis will allow more vaccines to be transported with this method and give health care workers confidence that the vaccines transported through CTC are potent at the time of administration to patients. Providing an all-inclusive per-vial solution that incorporates time indicators accurate to within six hours at the end of a vaccine's CTC term will extend the potential for using CTC to the traditional, multi-antigen day-to-day operation of community health workers.

Team Leader:

Aaron Chang is a senior biomedical engineering student from Grand Prairie, Texas. His past design team projects include a laparoscopic bowel retractor and a device to improve shock delivery in cardioversion and defibrillation. He has mentored Baltimore City high school students through the Incentive Mentoring Program and volunteers with Safe House of Hope, an organization that works to prevent human trafficking. In his free time, he enjoys reading, running, and playing basketball.

Team Members:

Jin Ryang Chung is from Seoul, South Korea, and is a senior majoring in biomedical engineering and applied mathematics and statistics. At Johns Hopkins, he has conducted research in the areas of urology robotics, drug delivery, and computational medicine. He also has been an active member of several groups, including the Korean Catholic Community, where he served as president. After graduation, he will continue studying biomedical engineering.

Rajiv Deshpande is a freshman from Chicago, Illinois, majoring in biomedical engineering. For his research project in the Department of Radiology at Johns Hopkins Hospital, he maps out nerve fibers in the brain using MRI. Outside of class, he is an advocate in the organization Health Leads and enjoys playing chess and the violin.

Paola Donis is pursuing a bachelor's degree in biomedical engineering. She is from Guatemala. In Engineering World Health, she also works with a team of students on a non-electric blood pressure device for developing countries. After college, Paola plans to return to Guatemala and use her acquired skills to help people in need.

Allison Moyer is a junior biomedical engineering major with minors in mathematics and psychology. She is from Harrisburg, Pennsylvania. In addition to working on a design team, she works in a cancer genetics lab at the Johns Hopkins School of Medicine and as a tutor for the Learning Den. She is involved in Relay for Life, is a member of Tau Beta Pi, and enjoys reading in her free time.

Erik Tan is a freshman premed biomedical engineer from Audubon, Pennsylvania. Erik also researches in the Thakor Lab, and he works with the ALS Hope Foundation and Kumon Learning Center back home. He is a head of household in the Incentive Mentoring Program and is on the event planning committee for the Triple Helix. Erik enjoys playing sports and musical instruments.

Dominic Thomas is a senior from Baltimore, Maryland. He is majoring in biomedical engineering and will be graduating this spring.

Amanda Valledor is a senior biomedical engineering student focusing on systems biology. She is an executive board member of the Johns Hopkins chapter of the Society of Women Engineers, an Engineering Ambassador, and a freshman residential advisor. After graduation, Amanda will spend a year working for City Year New Hampshire before starting graduate school.

Richard J. Johns Award

This award is named in honor of Richard J. Johns, former director of the Biomedical Engineering Department, who retired in 1991. It is presented to students who have achieved a high level of academic success.

Alessandro Luca Asoni is a senior double majoring in biomedical engineering and computer science with a minor in applied mathematics and statistics. He was born in Switzerland and grew up in southern Italy on the island of Sardinia. For two summers, Alessandro has done research at the McKusick-Nathans Institute of Genetic Medicine, focusing on finding interesting DNA features that characterize cell-type-specific regulatory elements. He recently accepted a position as a software developer for Bloomberg in New York.

Craig Bohrson graduated in December 2013 with a major in biomedical engineering and applied mathematics. He was born in Singapore but lived in Manchester, England, prior to college. As an undergraduate, he completed research projects in computational biology and bioinformatics. He intends to pursue a PhD.

Guojun (Gabriel) Chew is a junior in the Biomedical Engineering Department. He has been researching in Sridevi Sarma's Neuromedical Control Systems Lab where he investigates deep brain stimulation and Parkinson's disease. He spent a summer at the École Polytechnique Fédérale de Lausanne. He also is a leader at the Hopkins Christian Fellowship, an executive board member of the Hopkins Gospel Choir, president of the Singapore Students' Association and is a member of Tau Beta Pi, Golden Key Society, and Campus Ministries. He will work at a Brain-Computer Interface Lab in Singapore before enrolling in an MD-PhD program.

Steven Dalvin graduated last semester with a bachelor's degree in biomedical engineering. He is president of the national engineering honor society Tau Beta Pi, coaches for club swimming, and is leading a design team this year. His hobbies and interests include writing music, inventing, iPhone application development, and playing sports. Next year, he plans to attend medical school.

Kareem Fakhoury is graduating with a major in biomedical engineering and a minor in computer-integrated surgery. Kareem has served as a tutor at the Baltimore City Detention Center, worked as a chair on the Orientation Staff, and been a member of the Beta Theta Pi fraternity, the Arab Students Organization, the Johns Hopkins Muslim Association, and the Blue Key Society. Kareem is interested in researching biomedical imaging and hopes to pursue a career in academic medicine with a focus on improving medical practice through innovation in imaging.

Hyun Soo Jang graduated in December 2013 with a bachelor's degree in biomedical engineering. He is passionate about the interdisciplinary collaboration between biomedical engineering and ophthalmology. Working at the Wilmer Eye Institute, Hyun Soo has published two peer-reviewed papers and numerous abstracts on ophthalmic imaging. In August 2014, he will enter medical school to pursue ophthalmology as a career.

Po Wei (Billy) Kang is a senior biomedical engineering student born in Taiwan and from Rochester Hills, Michigan. Billy has worked with Dr. Pamela Zeitlin at the Johns Hopkins Cystic Fibrosis Center researching treatment and cures for the disease. He is working with David Yue at the Calcium Signals Lab, researching the molecular mechanism behind calcium modulation of voltage-gated sodium channels in skeletal muscles. He also tutors and guides inner-city Baltimore high school students through the Incentive Mentoring Program.

David Lee is a senior majoring in biomedical engineering with a minor in music. He has been engaged in research at the Center for Imaging Science, working on quantitative understanding of the shape of anatomical structure in order to characterize its changes. David intends to further his studies in a master's program and has also started applying to medical schools with the intent of pursuing clinical radiology.

Lingshu (Lily) Liu is a senior biomedical engineering student. She was born in China but moved to New Zealand as a child. Her research deals with using engineered sugar analogs to manipulate cancer cell fates, specifically in achieving targeted cell death, whereby the drug exhibits a much greater affinity for cancerous cells, as opposed to healthy cells. Lily also enjoys playing music and is currently in Encore, a student-run music tutoring-based volunteer group on campus that visits local schools to provide kids with a chance to learn new instruments.

Alexander Mullen is a senior double majoring in biomedical engineering and applied mathematics and statistics from Oxford, Mississippi. Alexander has worked in Hai-Quan Mao's biomaterials lab since sophomore year, focusing on nanofiber tubes for nerve regeneration. He is involved in Alpha Phi Omega, Engineers Without Borders, and Club Tennis. His interests and hobbies are piano, basketball, mnemonics, poker, and eating any and all kinds of food.

Sydney Rooney is a graduating senior from Elm Grove, Wisconsin, double majoring in biomedical engineering and applied mathematics and statistics. She performs research under Dr. Zijun Zhang at Union Memorial's Orthobiologic Research Laboratory and is the leader of a biomedical engineering design team focusing on controlling prehospital junctional hemorrhage in the military. On campus, she is a member of the Student Admissions Advisory Board, Engineering Ambassadors, Story Pals, Tau Beta Pi (secretary), and the National Society of Collegiate Scholars (president). Next year, she looks forward to attending medical school.

Ashwyn Sharma is a senior from Overland Park, Kansas, majoring in biomedical engineering. He conducts research under Feilim Mac Gabhann in the Institute of Computational Medicine, studying vascular endothelial growth factor signaling and angiogenic mechanisms. He is also working on a design team to develop a system for improved labor management in low-resource settings. Next year, Ashwyn will be attending medical school.

Chun-Ming (Ernest) So is a senior from Seattle studying biomedical engineering. He has been doing research with Pablo Iglesias for the past two years studying oscillatory behavior of Dictyostelium during pipette aspiration and fission yeast growth. He is the president of the Johns Hopkins Badminton Club and a member of Tau Beta Pi.

Jimmy Su is from Holmdel, New Jersey, and graduated last semester with a degree in biomedical engineering. Jimmy has been involved in research at Johns Hopkins as well as Columbia University as part of the Amgen Scholars Program. He is working two part-time internships: one with a Johns Hopkins startup, Euveda Biosciences, and one at the Lieber Institute for Brain Development. In the fall, he will attend graduate school to earn a doctorate in biomedical engineering with a focus in tissue engineering and regenerative medicine.

Allen Zhu graduated in December 2013 with majors in biomedical engineering and applied mathematics and statistics. Allen is from Fort Collins, Colorado. He has been involved in a variety of activities, ranging from break dance to research. Allen also volunteered as an organizer for the Johns Hopkins Tutorial Project.

Amadeus Zhu has tutored students in several biomedical engineering courses through the Learning Den. He has worked in a variety of research labs, including spending two summers at the National Cancer Institute. He is involved in Adoremus, Johns Hopkins' Christian a cappella group. He works in Dr. Luis Garza's lab at the Johns Hopkins School of Medicine, investigating wound healing and skin regeneration. He plans to apply to a PhD program in biomedical engineering with a focus on tissue engineering and regenerative medicine.

Biomedical Engineering Research Day Award

These awards are given to the top presentations of the Undergraduate Research Day event.

First Place:

Joshua Temple is a junior from Omaha, Nebraska, pursuing a major in chemical and biomolecular engineering with a minor in entrepreneurship and management. He has had multiple abstracts accepted for conference talks and publications, and he recently submitted a patent application. He led the design and construction of a 3-D printer used to fabricate craniofacial biomaterial scaffolds from patient CT scans for use in bone reconstruction applications. He currently focuses on augmenting the inductive material properties of these scaffolds as well as overcoming the regulatory barriers preventing clinical translation of the technology.

Second Place:

Austin Jordan is a rising senior double majoring in biomedical engineering and neuroscience with a minor in applied mathematics and statistics from High Point, North Carolina. He is conducting ongoing research in computational neuroscience, specifically working on developing an algorithm for seizure localization in medically refractory epilepsy patients. He has been an active member of several campus groups, including the Johns Hopkins Men's Ultimate Frisbee Team and Hopkins InterVarsity Christian Fellowship.



DEPARTMENT OF CHEMICAL
AND BIOMOLECULAR ENGINEERING

Presented by Konstantinos Konstantopoulos

American Institute of Chemical Engineers Award for Scholastic Achievement

This award is given to the chemical and biomolecular engineering students with the highest scholastic standing after their sophomore year.

Alex Abramson is a junior studying chemical and biomolecular engineering from St. Louis. He works in David Gracias' lab on a PURA project, the creation of micro-sized metallic spikes for microgrippers. Alex also works as a tutor for the Learning Den, the treasurer for the school's chapter of the American Institute of Chemical Engineers, and research team leader for the Guatemala section of Engineers Without Borders. He also hosts a radio show on WJHU.

Xin Fang is a junior studying chemical and biomolecular engineering from Nanjing, China. She does research on vascular endothelial growth factor isoforms in Aleksander Popel's System Biology Lab. Xin held an internship at MedImmune last summer and will be interning at Genentech this summer. She plans to go to graduate school and work in the biotech industry.

Megan Schwarz is a junior studying chemical and biomolecular engineering from Londonderry, New Hampshire. Last summer she worked on a sustainability project at the University of Illinois at Chicago. Megan played on the varsity volleyball team during her freshman and sophomore year. She is a member of the Incentive Mentoring Program and works as a teaching assistant for the Introductory Chemistry Lab.

Eric Scott is a junior chemical and biomolecular engineering major from Fort Wayne, Indiana. He is involved with the ChemE Car team on campus. As a member of ROTC, he is involved with the Battalion color guard and Pershing Rifles unit. This summer, he will work with the U.S. Army Corps of Engineers in Portland, Oregon.

Lien-Chun (Philomena) Weng is a junior double majoring in chemical and biomolecular engineering and applied mathematics and statistics from Taiwan. She performs research at the medical campus on genetically modified viruses, tutors at the Learning Den, and volunteers with HOP HELP as a tutor at Waverly Elementary School.

Chemical and Biomolecular Engineering Special Service Award

This award is given to a student who has made outstanding contributions to the Department of Chemical and Biomolecular Engineering.

Max Yelsky is a sophomore electrical and computer engineering double major from Wyckoff, New Jersey. He is affiliated with the ChemE Car team, the Men's Ultimate Frisbee team, and the Institute of Electrical and Electronics Engineers society, and he is the president and co-founder of the Robotics Team. Max is interested in expanding the presence of robotics on the Johns Hopkins campus, whether that means building something with the robotics club or working to help the ChemE Car team compete.

The Sarah K. Doshna Undergraduate Research Award

This award is given for demonstrated contributions to research in chemical and biomolecular engineering. The award is named in memory of former undergraduate student Sarah K. Doshna.

Ryan Alvarez is a senior from Crystal Lake, Illinois, studying chemical and biomolecular engineering. Ryan has interned as a new product development engineer at Sage Products, a health care manufacturer, developing a skin protectant for incontinent patients and a medical device to accelerate healing of pressure ulcers for in-ambulatory patients. He has worked in Wirtz Lab for the past year, researching the epithelial-mesenchymal transition, the root cause of three key processes responsible for cancer-related mortality. Ryan also serves in Stepping Stone, an on-campus church, and competes for Johns Hopkins as an NCAA DIII athlete in cross-country and track.

Jordan Baker is a senior from Pottstown, Pennsylvania, in the Chemical and Biomolecular Engineering Department, and he will continue at Johns Hopkins to complete his master's degree in the same department. His research projects have focused on modeling and manipulating the metabolism of algae to increase the production of lipids for biofuels and other high-value molecules, mainly through genetic modifications and varying growth conditions. Jordan has worked on similar projects during internships at Iowa State University as well as at Genentech in San Francisco. He is an avid soccer fan and player and has been the captain of the Johns Hopkins Club Soccer team for the past three years.

Galit Benoni is a junior majoring in chemical and biomolecular engineering. She has worked in the Gerecht Lab and is from San Diego, California.

Daniel Keith is a sophomore from St. Louis studying chemical and biomolecular engineering. He is an undergraduate researcher in the Cui Lab, an affiliate of the Institute for NanoBioTechnology. His primary interest is the application of engineering principles to cancer research, and he aims to pursue an MD/PhD. He is also a member of the Johns Hopkins Marathon Team and will be running the Boston Marathon next spring.

Beril Polat is from Istanbul and is a junior majoring in chemical and biomolecular engineering. She has been working with David Gracias and his lab partners since January 2013. Beril's main project deals with single cell microgrippers and its derivatives. On campus, she is a member of Turkish Students Association as well as Phi Mu. Beril enjoys running half and full marathons.

Arya Reddy is a sophomore double majoring in chemical and biomolecular engineering and applied mathematics with a minor in entrepreneurship and management. His research is in laminar flow microfluidic devices with potential applications in impedance-based biosensing and mixing using gold electrodes and an AC electric field. Arya's other interests include finance and consulting, and this summer he will be interning at HT Capital Advisors.

Joshua Temple is a third-year undergraduate student from Omaha, Nebraska, pursuing a major in chemical and biomolecular engineering with a minor in entrepreneurship and management. At Johns Hopkins, he has had multiple abstracts accepted for conference talks and publications and recently submitted a patent application. He led the design and construction of a 3-D printer used to fabricate craniofacial biomaterial scaffolds from patient CT scans for use in bone reconstruction applications. He focuses on augmenting the inductive material properties of these scaffolds as well as overcoming the regulatory barriers preventing clinical translation of the technology.

Andrew Thierman is a senior majoring in chemical and biomolecular engineering from New Jersey. His research involves trying to increase the expression of membrane proteins in mammalian cells. He is also a tutor at the Learning Den.

Chanon Tuntivate is a junior chemical and biomolecular engineering major from Wilmington, Delaware. He has been studying DNA origami in the Schulman Lab at Hopkins for about a year and a half. Chanon is a mentor in MAPP, a mentoring program geared toward advising underrepresented students on campus. He is also on the cross-country and track teams at Johns Hopkins.

Joseph L. Katz Award

This award is presented to chemical and biomolecular engineering seniors for academic excellence in the Chemical and Biomolecular Engineering Senior Lab course.

Tyler Cloutier is a senior chemical and biomolecular engineering major who is pursuing a Master of Science in Engineering in computer science. He is from Rhode Island, makes iOS apps for fun, and loves to draw and paint. Tyler will have a software internship this summer with either Sony in Tokyo or Bloomberg in New York.

Mark Hall is from Gillette, New Jersey. He received his undergraduate degree in chemical and biomolecular engineering and is currently pursuing a Master of Science in Engineering in systems analysis and economics with a concentration in energy systems. He has previously worked for Akzo Nobel and BP, developing specialty polymers. After graduation, he intends to continue his work at Con Edison, focusing on emerging energy technologies and policies.

Alexis Ham is from New Jersey and graduated in December 2013 with a bachelor's degree in chemical and biomolecular engineering.

Katherine Tschudi graduated in December 2013 as a chemical and biomolecular engineering major with a minor in French cultural studies. At Johns Hopkins, she worked in Wirtz lab studying cell motility in relation to metastasis, was involved with marketing and communications for the admissions department, and volunteered at a theater off-campus. She is currently working at Genentech in the Protein Analytical Chemistry Department.

Loy Wilkinson Award

This award, created by chemical engineering alumnus and emeritus trustee Loy Wilkinson '54, is given for a demonstrated record of leadership and service in chemical and biomolecular engineering.

Rachel LeCover is a senior majoring in chemical and biomolecular engineering with a minor in applied mathematics and statistics. She is originally from Nipomo, California, and serves as the vice president of the Johns Hopkins Wind Ensemble. Rachel is also a member of the flute choir and ChemE Car team, and she enjoys reading, dancing, and cooking.

James Walter Moxley Jr. is a concurrent bachelor's/master's student of chemical and biomolecular engineering at Johns Hopkins. He will receive a bachelor's degree in May 2014 and a master's degree in May 2015. He serves as an undergraduate researcher under the supervision of Honggang Cui with a focus on the molecular engineering of anti-cancer drugs to produce self-assembled, chemotherapeutic nanocarriers. His interests are deeply rooted in the emerging applications of nanomedicine, specifically the development of rationally designed nanoparticles for targeted drug delivery.

Paul A.C. Cook Award

This award is given to outstanding sophomores or juniors in chemical and biomolecular engineering who are the best all-around students and is named in honor of the late chemical engineering alumnus, Dr. Paul A.C. Cook '52.

Abraham Anonuevo is a junior with a double major in chemical and biomolecular engineering and mathematics.

Christopher Argento is a sophomore majoring in chemical and biomolecular engineering with a concentration in interfaces and nanotechnology. He is from Miller Place, New York. Christopher is involved in research for the Frechette Laboratory, where he is studying the effects of drainage channels on submerged spheres rolling down an inclined plane. He is also a dedicated member of the Johns Hopkins Badminton Club and participates in the SABES program, which introduces fourth-grade students to the STEM fields.



Francis J. and Mary T. Fisher Research Award

This award was established by the Fisher family to honor Francis J. Fisher '63, a committed supporter of the Whiting and Krieger schools. The award is given annually to an undergraduate student who is excelling academically and engaged in basic or applied cancer research.

Ryan Alvarez is a senior from Crystal Lake, Illinois, studying chemical and biomolecular engineering. Ryan has interned as a new product development engineer at Sage Products, a health care manufacturer. He has worked in Wirtz Lab for the past year researching the epithelial-mesenchymal transition, the root cause of three key processes responsible for cancer-related mortality. Ryan also serves in Stepping Stone, an on-campus church, and competes for Johns Hopkins as an NCAA DIII athlete in cross-country and track.

Pavlos Pachidis is a junior chemical and biomolecular engineering major concentrating on tissue engineering. Pavlos is from Greece and has been working at Konstantopoulos Lab for the past two years, studying cancer metastasis by using microfluidic devices. He is a member of the ChemE Car team, the Hellenic Student Association, Theta, the LGBTQIA mentoring program, and the Johns Hopkins Woodrow Wilson Debate Club.

Genentech Process Research and Development Outstanding Student Award

Genentech recognizes an outstanding student in disciplines related to the needs of the biotechnology industry.

Xin Fang is a junior studying chemical and biomolecular engineering from Nanjing, China. She is doing research on vascular endothelial growth factor isoforms in Professor Popel's System Biology Lab. Xin held an internship at MedImmune last summer and will be interning at Genentech this summer. In the future, she plans to attend graduate school and work in the biotech industry.

Elnora Streb Muly Award

This award sponsors students majoring in chemical engineering who are conducting independent study or independent research on practical problems identified by engineers working in the chemical industry. It was established by Mr. William Muly '38 in memory of his wife, Elnora Streb Muly.

Rachel McFarland graduated this December with a Bachelor of Science in biomedical engineering. She conducted research with Marc Donohue, studying pharmacokinetics and pharmacodynamics, particularly with respect to the side effects of NSAIDs. Rachel is from Columbia, South Carolina, and lives in California, working for a genetic testing company.

James Walter Moxley Jr. is a concurrent BS/MS student of chemical and biomolecular engineering. He will receive a Bachelor of Science in May 2014 and a Master of Science in May 2015. He serves as an undergraduate researcher under the supervision of Honggang Cui with a focus on the molecular engineering of anti-cancer drugs to produce self-assembled, chemotherapeutic nanocarriers. He is interested in the emerging applications of nanomedicine, specifically the development of rationally designed nanoparticles for targeted drug delivery.

Paul Roberts is a sophomore chemical and biomolecular engineering student. He has been actively involved in Marc Ostermeier's lab since fall 2012, focusing on site-directed mutagenesis.

DEPARTMENT OF CIVIL ENGINEERING

Presented by Ben Schafer

American Concrete Institute Award

The American Concrete Institute recognizes an undergraduate student for outstanding mastery of the design and analysis of reinforced concrete structures.

Ryan Daley is a senior civil engineering major with a minor in entrepreneurship and management. He is from Fairfield, Connecticut, and will be pursuing a master's degree in civil engineering at Johns Hopkins next year. Ryan is also a member of Sigma Alpha Epsilon fraternity, the American Society of Civil Engineers, Tau Beta Pi engineering honor society and Golden Key international honor society.

American Society of Civil Engineering Maryland Section Scholarship

American Society of Civil Engineering Maryland Section Scholarship is awarded to an undergraduate member of the ASCE student chapter for his or her outstanding academic merits as a student in the Department of Civil Engineering.

Stephen Wong is a junior studying civil engineering and sociology from Aurora, Ohio. He is a part of the Housing and Poverty Research Group in sociology and will be a part of the Sensor Technology and Infrastructure Risk Mitigation Research Group in civil engineering this summer. When he is not conducting research, Stephen stays busy as an admissions representative and executive board member for Blue Key and as a member of Hopkins Hosting Society, Wind Ensemble, Club Swimming, American Society of Civil Engineers, and Hopkins Christian Fellowship. He enjoys traveling, learning random bits of trivia, being active outdoors, playing a variety of sports, and racing in triathlons.

Civil Engineering Award

The Civil Engineering Award is given for outstanding achievement by a graduating senior for academic excellence, leadership, and service in the Department of Civil Engineering.

Clea Baumhofer is a graduating senior civil engineering major. She is from Martha's Vineyard, Massachusetts, and is the co-project leader for Johns Hopkins' Guatemala Engineers Without Borders team. Their latest project is building a solar-powered pump system to bring water to a village in Guatemala. Clea has also studied abroad in Paris and had an internship working on the renovation of Pierre and Marie Curie University. She also plays violin in the Hopkins Chamber Orchestra.

Presented by Gregory Hager

The CS+X Award

This award is presented annually to a senior computer science student for outstanding achievement in combining diverse studies with computer science.

Alessandro Luca Asoni is a senior double majoring in biomedical engineering and computer science with a minor in applied mathematics and statistics. He was born in Switzerland and grew up in southern Italy, on the island of Sardinia. For the past two summers, Alessandro has conducted research at the McKusick-Nathans Institute of Genetic Medicine, specifically focusing on finding interesting DNA features that characterize cell-type-specific regulatory elements. He recently accepted a position as software developer at Bloomberg in New York, where he will start working in June.

Charlie Seidell is a senior mathematics and computer science major with a minor in classics. He is originally from Goldens Bridge, New York, and has spent much of the last year working with Vladimir Braverman, Jonathan Katzman, and Greg Vorsanger to research the approximation of large frequency moments on massive data streams. He is a refurbishment coordinator with Bootup Baltimore and enjoys reading and playing video games and Magic: The Gathering in his spare time.

Matthew Sheckells is a senior computer science and physics major from Ellicott City, Maryland. He worked at Microsoft last summer, testing applications for the Xbox One and plans to pursue a PhD in computer science with a focus on robotics. Matt is also co-captain of the Men's Club Lacrosse team at Johns Hopkins.

Most Valuable Peer Award

Chosen by the students themselves, this award is presented annually to the student who has contributed the most to the undergraduate computer science community and departmental spirit.

Juneki Hong is a fifth-year concurrent bachelor's/master's student majoring in computer science. Juneki is interested in natural language processing and works with Jason Eisner on a project about dependency parsing. He is a former officer of the student chapter of the Association for Computing Machinery, the former vice president of Upsilon Pi Epsilon computer science honor society, and can frequently be found working and hanging out in the CS Undergraduate Lab. He enjoys biking, cooking, and long walks on the beach.

Amory Martin is a graduating senior with a double major in civil engineering and mathematics. Amory grew up in Paris. His research interests are earthquake engineering and structural performance. His research projects have dealt with modeling evacuation and post-disaster responses after earthquakes as well as the near-collapse performance of large frame buildings due to seismic ground motion. Next year, Amory will be pursuing an MS/PhD at Stanford University in structural engineering. He is the co-project leader of the Guatemala chapter of Engineers without Borders and a member of the American Society of Civil Engineers, Omicron Delta Kappa, Tau Beta Pi, Golden Key, and the Pi Kappa Alpha fraternity. Amory also enjoys playing tennis, skiing and drawing.

Molly Van Doren is a senior majoring in civil engineering from Andover, Massachusetts. Her previous research projects include cold-formed steel structures, hurricane risk assessment for offshore wind farms, and making Baltimore bicycle friendly. Molly is a member of Johns Hopkins' cross-country and track and field teams, and will be pursuing a PhD in structural engineering in fall 2014.

Civil Engineering Faculty Award

The Civil Engineering Faculty Award is given to a senior for outstanding service and academic achievement in the Department of Civil Engineering.

Linnea Cripe is a senior from Philadelphia majoring in civil engineering. She has worked at Pennoni Associates and AECOM, and this summer she will be a participant in the 4K for Cancer ride from Baltimore to San Francisco. Linnea is the vice president of the American Society of Civil Engineers student chapter on campus, a member of the Women's Club Soccer team, and a member of the Alpha Phi fraternity. She looks forward to starting her medical post-baccalaureate program next year.

Hannah Evans is a senior studying civil engineering. She works as a clerical assistant in the Civil Engineering Department main office and maintains the role of social chair for the student chapter of the American Society of Civil Engineers. Hannah is from Gloucester, Massachusetts, and will be attending the University of California, Berkeley, next year to pursue a master's degree in structural engineering.

Makesi Paul is a civil engineering major with a minor in entrepreneurship and management from Trinidad and Tobago. He recently led a team of three to Indonesia to partner with nonprofit Kopernik and Exxon Mobil Corp. to provide prototype engineering solutions to increase the efficiency of the agricultural processes Indonesian in East Java. Makesi is also a core leader in the peer-led-team-learning program, a second-year resident adviser, and a senior leadership consultant.

Gerard H. Schlimm Award

The Gerard H. Schlimm Award is given to an undergraduate student for his or her exceptional accomplishments in the field of civil engineering. As a longtime senior lecturer and director of the part-time and special programs at the Whiting School from 1966 to 1994, the late Dr. Schlimm made many contributions to the education of future engineers.

Ashley Feldman is a senior from New York City double majoring in civil engineering and Spanish with a minor in the history of art. She has interned at Bard, Rao + Athanas Consulting Engineers; Murray Engineering; and Clark Construction. At Johns Hopkins, she has been an active member of Theta Tau professional engineering fraternity, Senior Leadership Consultants, Johns Hopkins Outdoors Club, Equestrian Club, and Blue Key Society. Next year, she will be attending Johns Hopkins' graduate program in engineering management.

Michael J. Muuss Research Award

This award was established in 2000 in memory of alumnus Michael J. Muuss '79 and is awarded annually to a student who has demonstrated the best application of research to practice. Michael Muuss was an electrical and computer engineering graduate and was known as an Internet and network security pioneer. His life was cut short in a tragic accident in November 2000.

Jay DeYoung is a senior with a double major in computer science and applied mathematics and statistics. He has been working since summer 2013 with Mark Dredze on entity linking and disambiguation problems. He is a member of the Johns Hopkins varsity fencing team, an Association for Computing Machinery system administrator, and a vice president of the Upsilon Pi Epsilon computer science honors society. He will be working at Amazon over the summer before returning to Johns Hopkins to complete a master's degree in computer science.

Outstanding Course Assistant Award

This award is presented annually to a student who has demonstrated outstanding effort and skill in assisting with computer science courses.

Daniel Deutsch is a senior computer science major graduating this spring with both his bachelor's and master's degrees. He is interested in computer science education and natural language processing. Daniel is the head teaching assistant for Introduction to Programming, and he is working on a research project with Ryan Cotterell and David Yarowsky on unsupervised syllabification and morpheme segmentation. This summer, he will start working at Microsoft in Seattle as a software development engineer.

Outstanding Senior Award

This award is presented annually to a senior computer science major for academic excellence, leadership, and service in computer science.

Jonathan Katzman is a senior double majoring in computer science and applied mathematics and statistics from Hershey, Pennsylvania. He is interested in theoretical computer science with a focus on algorithms and graph theory, and he researches streaming algorithms with Vladimir Braverman. He is the president of Johns Hopkins Bands and is a member of three of its components: Wind Ensemble, Jazz Band, and Pep Band. Jonathan also participates in taekwondo and is a member of the Association for Computing Machinery.

Sharon Li is a senior from Williamsburg, Virginia, with a double major in computer science and applied mathematics and statistics. She is also concurrently completing her master's in computer science. Sharon is working on a grammar induction project with Dr. Eisner and Matt Gormley and is part of a team of applied mathematics and statistics students modeling a scheduling problem with Donniell Fishkind. Sharon plans to work at Microsoft in Seattle. Sharon is a member of the Upsilon Pi Epsilon computer science honor society and the National Society of Collegiate Scholars. Sharon also enjoys coding, reading, rock climbing, mixing up Rubik's Cubes, and baking.

Outstanding Teaching Assistant Award

This award is presented annually to a student who has demonstrated outstanding effort and skill in assisting with the teaching of computer science courses.

Ryan Cotterell is a first-year PhD student in the Computer Science Department affiliated with the Center for Language and Speech Processing. He specializes in computational linguistics and machine learning with a focus on statistical approaches to phonology and morphology.

Yixin Gao is a senior PhD student in computer science. She is working with Sanjeev Khudanpur and Greg Hager at the Laboratory of Computational Sensing and Robotics. Her research interests lie in machine learning, computer vision, and robotics, especially those involved in surgical activity recognition in robotic surgical training. Before joining Johns Hopkins, she received her bachelor's and master's degrees in electrical engineering from Xi'an Jiaotong University in Xi'an, China, in 2006 and 2009, respectively. She also received the Chiang Chen Overseas Fellowship in 2009 and Dean Robert H. Roy Fellowship in 2010.

Paul Martin obtained his Bachelor of Science and Master of Science in Engineering in computer science from Johns Hopkins in 2013 and 2011, respectively. He is a third-year PhD student in computer science and performs research in Avi Rubin's Health and Medical Security Lab. His research interests include embedded systems security, operating system security, vulnerability analysis, reverse engineering, network protocol analysis, anomaly detection, and big-data security analytics.

Special Service Award

This award is presented annually to a student who has performed outstanding work to benefit the Computer Science Department, Johns Hopkins University, and the community.

Benjamin Glickman is a junior double majoring in computer science and applied mathematics and statistics. He is from Lower Merion, Pennsylvania. Ben has worked at DEKA Research & Development and Google as a software engineering intern, and he will be returning to Google for another internship this summer. He is the secretary of the Association for Computing Machinery, vice president of refurbishment for Bootup Baltimore, a member of the Phi Delta Theta fraternity, and a member of the Ultimate Frisbee Club team. Ben also enjoys watching hockey and playing guitar with friends.

Nathan Schloss came to Johns Hopkins from Los Angeles. During his four years here, he contributed to Bootup Baltimore, Hopkins Hosting Society, and the Johns Hopkins News-Letter, and he was the point organizer for the HopHacks hackathon each of the last two semesters. He will graduate with a Bachelor of Science in computer science and a minor in entrepreneurship and management. Following graduation, Nathan intends to return to California to work at Facebook, where he interned last summer.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Presented by Jin Kang

John Boswell Whitehead Award

John Boswell Whitehead was named professor of electrical engineering in 1910 and began a program in applied electricity that led to the formation of the Electrical Engineering Department. Professor Whitehead was also the first dean of the School of Engineering. This award is presented annually for outstanding achievements in electrical engineering by an undergraduate student.

Nicha Apichitsopa is a senior engineering major from Phuket, Thailand. Her research interests lie in the field of microfabrication, nanoelectronics, and nanosensors. Nicha has worked with organic thin-film transistors in a microsystems lab, and she is also involved with a project on topological insulators in a condensed-matter physics lab. Prior to that, she worked in a speech processing lab throughout her sophomore year. Nicha is a member of Golden Key, Tau Beta Pi, and Eta Kappa Nu honor society and is a previous recipient of the William H. Huggins Award.

William H. Huggins Awards

William H. Huggins was chair of the Electrical Engineering Department from 1970 to 1975. Dr. Huggins was a member of the National Academy of Engineering, a fellow of the Institute of Electrical and Electronics Engineers (IEEE), and the recipient of the IEEE Educational Medal and the IEEE Edison Medal. Huggins Awards are presented annually to a senior and junior in electrical and computer engineering for outstanding scholarship and service to the department and to his or her fellow students.

Daniel Ahn is a computer engineering major with a minor in computer-integrated surgery. He will be graduating this spring.

Ryan Cropp is a junior computer engineering major from Doylestown, Pennsylvania. Last summer, Ryan worked on the new X1 television platform for Comcast in Philadelphia. This summer, he has an internship in the operating systems division of Microsoft in Redmond, Washington. At Johns Hopkins, Ryan is an officer for Bootup Baltimore, a community service computer refurbishment club. He is a member of the Institute of Electrical and Electronics Engineers and helped start the new Johns Hopkins Club Baseball team.

Jason Gallagher is a junior pursuing majors in computer engineering, electrical engineering, and applied mathematics and statistics. He is from Medford, New Jersey, and is working on optimization research with the Johns Hopkins baseball scheduling team in the Applied Mathematics and Statistics Department. Jason will be interning this summer at Lockheed Martin. He is also a teaching assistant for Introduction to Probability in Applied Mathematics and Statistics. His interests include developing automated electronic devices for improvements in animal training and behavior, and his hobbies include skateboarding and spending time with friends and family.

Eric Haydel is a senior double majoring in electrical and computer engineering with a minor in math. He is in the five-year concurrent Electrical and Computer Engineering program to receive a master's in electrical engineering. He is from New Orleans, where he has worked the past two summers doing automation and controls design for everything from oil rigs to home product lines. Eric is the co-founder and co-president of the Johns Hopkins Golf Association, which competes in club tournaments. He is a member of Eta Kappa Nu, Tau Beta Pi, and the Institute of Electrical and Electronics Engineers. He enjoys playing golf, writing fiction, and organizing pickup sports with friends.

Bill Kim is a junior double majoring in electrical and computer engineering from Upper Dublin, Pennsylvania. Last summer, he worked in the Ultrafast and Nonlinear Optics Lab at the Pennsylvania State University under Zhiwen Liu. This summer, he looks forward to his first industry experience and will work at the space systems division of Lockheed Martin. He is co-leader of the Artificial Pancreas Electrical and Computer Engineering design team. Bill is also one of the electrical engineers for Hopkinauts, a group at Hopkins who has a dual mission of technology validation and scientific data collection. He is a member of Tau Beta Phi and Eta Kappa Nu. In his free time, he enjoys playing pickup football or basketball, snowboarding, and watching movies.

Charles A. Conklin Award

Charles A. Conklin III '27 earned his bachelor's degree in electrical engineering from Johns Hopkins. In honor of Mr. Conklin, this award is presented to an outstanding electrical and computer engineering senior to recognize his or her academic achievements.

Richard Eben will be receiving a BS/MSE from Johns Hopkins in electrical engineering with a minor in entrepreneurship and management after only four years. He has worked at Hopkins as a research assistant for Mark Foster in ultrafast and nonlinear photonics and as a teaching assistant for Joanne Selinski for Introduction to Programming in Java. Last summer, Rick worked as a quality assurance intern for Apple, and he isolated and reported the highest number of bugs among interns and full-time employees on his team. He is a member of four leadership honors societies. Next year, he will be working full time at Bloomberg in the Research and Development Department.

Marc Reisner is a graduating computer engineering major from Queens, New York. He belongs to Throat Culture, Johns Hopkins' only sketch comedy group, and is an active member of Witness Theater, a theater group that produces student-written plays. In the past, he has worked as a course assistant for several computer science courses and has interned at the University of North Texas for the past two summers. Marc is a member of Eta Kappa Nu, the Institute of Electrical and Electronics Engineers honor society. He will begin employment at Epic Systems in Madison, Wisconsin, this summer.

The Muly Family Undergraduate Research Award

This award supports undergraduate student research and is awarded annually to an exceptional undergraduate student conducting research in the Department of Electrical and Computer Engineering. It was established by Emil '56 and Faye Muly in honor of their family who include several generations of Hopkins alumni.

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Electrical and Computer Engineering Student Leadership Award

The Electrical and Computer Engineering Student Involvement Award recognizes significant achievement by a graduating senior for academic excellence, leadership, and service in the Department of Electrical and Computer Engineering.

Jane Foster is a graduating electrical engineering and French double major from Arlington, Virginia. During her four years at Johns Hopkins, she was an active member of the executive board of the Institute of Electrical and Electronics Engineers as well as the leader of the Power Beaming design team. In her free time, she dances with the Hopkins Ballet Company and bakes cookies. She will be attending Johns Hopkins in the fall to work toward a master's in electrical engineering.

Krysti Papadopoulos is from Massachusetts and recently graduated in December 2013 with a bachelor's degree in electrical engineering.



Presented by Edward Boucher

Lucien Brush Award for Excellence in Environmental Engineering

The Lucien Brush Award for Excellence in Environmental Engineering is given annually for outstanding achievement in environmental engineering by a graduating senior. The award was established in memory of Professor Lucien M. Brush Jr., a faculty member who was a major part of the substance and the spirit of the department and of the university for some 25 years.

Joonas Karjalainen is a senior environmental engineer from Finland with a passion for green building and energy technologies with a particular interest in renewable energy. He is a part-time energy policy intern at Resources for the Future in Washington, D.C., and will be interning at Siemens Building Technologies in Switzerland next summer, as he did last summer. Outside the classroom, he is a member of the Johns Hopkins varsity tennis team and co-leads the Sustainable Hopkins Infrastructure Program, which has a mission of promoting sustainable development and fiscal savings on campus through projects that reduce the energy and/or water consumption of the campus buildings and provide a seven-year payback on the investments.

The Wolman Award

The Wolman Award is given annually to a graduating senior who exhibits both promise and spirit with regard to interdisciplinary work. The award was established in memory of M. Gordon "Reds" Wolman, a faculty member in the Department of Geography and Environmental Engineering who contributed to the academic growth of the university through service as a department chair and interim provost and through strong advocacy of interdisciplinary studies. He was a beloved member of The Johns Hopkins University for more than half a century.

Afroditi Xydi, originally from Athens, Greece, has a strong interest in water, sustainable development, and clean energy. She is a double major in environmental engineering and economics. For the last two summers, she interned with Electricité de France, the leading European energy utility, at its research and development center and trading desk in London. At Johns Hopkins, she has been the project leader of the Engineers Without Borders Guatemala team, working on designing and constructing a solar-powered water distribution system for a rural Guatemalan village. For the past year, she has also been the student director of the Sustainable Hopkins Infrastructure Program, a program that aims to reduce Johns Hopkins' water and carbon footprint.

Faculty Award for Service and Academic Achievement in DoGEE

The Faculty Award for Service and Academic Achievement in DoGEE is given to a senior for outstanding service and academic achievement in the Department of Geography and Environmental Engineering.

Logan Brunner is a senior from Jefferson City, Missouri. He is involved in research projects on the design and implementation of an open-source turbidimeter for water quality testing, vegetation analysis in Baltimore County, and modeling water and power network vulnerability for an island in the Caribbean. On campus, he leads canoeing trips around Maryland through Outdoor Pursuits and serves as the vice president of internal development in the group Students Consulting for Non-Profit Organizations. This fall, he will continue at Johns Hopkins in the environmental engineering master's program.

Daniel Kahn is a senior environmental engineering student with a minor in entrepreneurship and management. He is from Red Bank, New Jersey. Over the past year, he has been working with PhD student Chris Kelley, under the supervision of William Ball, in building an open-source, low-cost turbidimeter. This will be used to help people in developing nations acquire affordable water quality testing technology. He is a member of the Johns Hopkins AllNighters, an all-male a capella group, and is also a member of the Pi Kappa Alpha fraternity. Daniel enjoys participating at Hillel and taking lessons at the Peabody Conservatory.

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

Presented by Howard Katz

Materials Science and Engineering Achievement Award

This award is given for outstanding achievement by a graduating senior in the Department of Materials Science and Engineering.

Stephen Filippone is a graduating materials science and engineering major from Los Fresnos, Texas. For three consecutive summers, at Northwestern and Vanderbilt, Filippone worked under the auspices of the National Science Foundation's Research Experiences for Undergraduates program. At Johns Hopkins, he works with Michael Falk on conducting computational research on amorphous systems, as well as on his senior design project on nickel-aluminum nanofolds. Stephen is also a member of Tau Beta Pi, a 2013 Goldwater Scholar, and a 2014 Gates-Cambridge Scholar. Next year, he will attend Cambridge University to complete a Master of Philosophy in physics, working for Sir Richard Friend. Upon his return, he plans to enter a PhD program in materials science and engineering.

Robert B. Pond Sr. Achievement Award

The Robert B. Pond Sr. Achievement Award is given to a graduating senior in the Department of Materials Science and Engineering who best exemplifies Professor Pond's commitment to scholarly and humane values. Robert Pond joined the faculty of Johns Hopkins in 1947 as its first metallurgist; he retired in 1988. With Dr. Robert E. Green Jr., he was the co-founder of the Materials Science and Engineering Department.

Putarut (Sunny) Suntharanund is a graduating senior in the Department of Materials Science and Engineering from Romeoville, Illinois. Her research interests include studying the nanomechanics of soft materials such as in polymeric nanoparticle systems and in carbon nanotube composites. She has also been a member of an award-winning engineering team in the International Genetically Engineered Machine competition. Along with engineering, Sunny is pursuing a music minor at the Peabody Institute. She enjoys performing in various musical groups and works as stage manager for the Hopkins Symphony Orchestra. Sunny also serves as a residential adviser for students living on campus, as president of the Materials Research Society chapter, and as the undergraduate representative for the Johns Hopkins reaccreditation committee. In her free time, Sunny has a passion for promoting STEM education to youth and works with Baltimore school children through the Center for Social Concern. She also enjoys playing in intramural sports and helping in community beautification projects.

Senior Design Engineering Award

This award is given in recognition of outstanding contributions to the design and conduct of an independent research project in the Department of Materials Science and Engineering.

Maani Archang is a senior in materials science and engineering and a premed student. Born in California and raised in Iran, he is a member of Mao Research Group in Institute for NanoBioTechnology, the president of the Society for Biomaterials at Hopkins, and a member of Tau Beta Pi engineering honors society. His research interests focus on developing new polymeric nanocarriers for gene therapy. He is receiving this award for his research on the role of shape and surface chemistry on the biodistribution and efficiency of DNA nanoparticles.

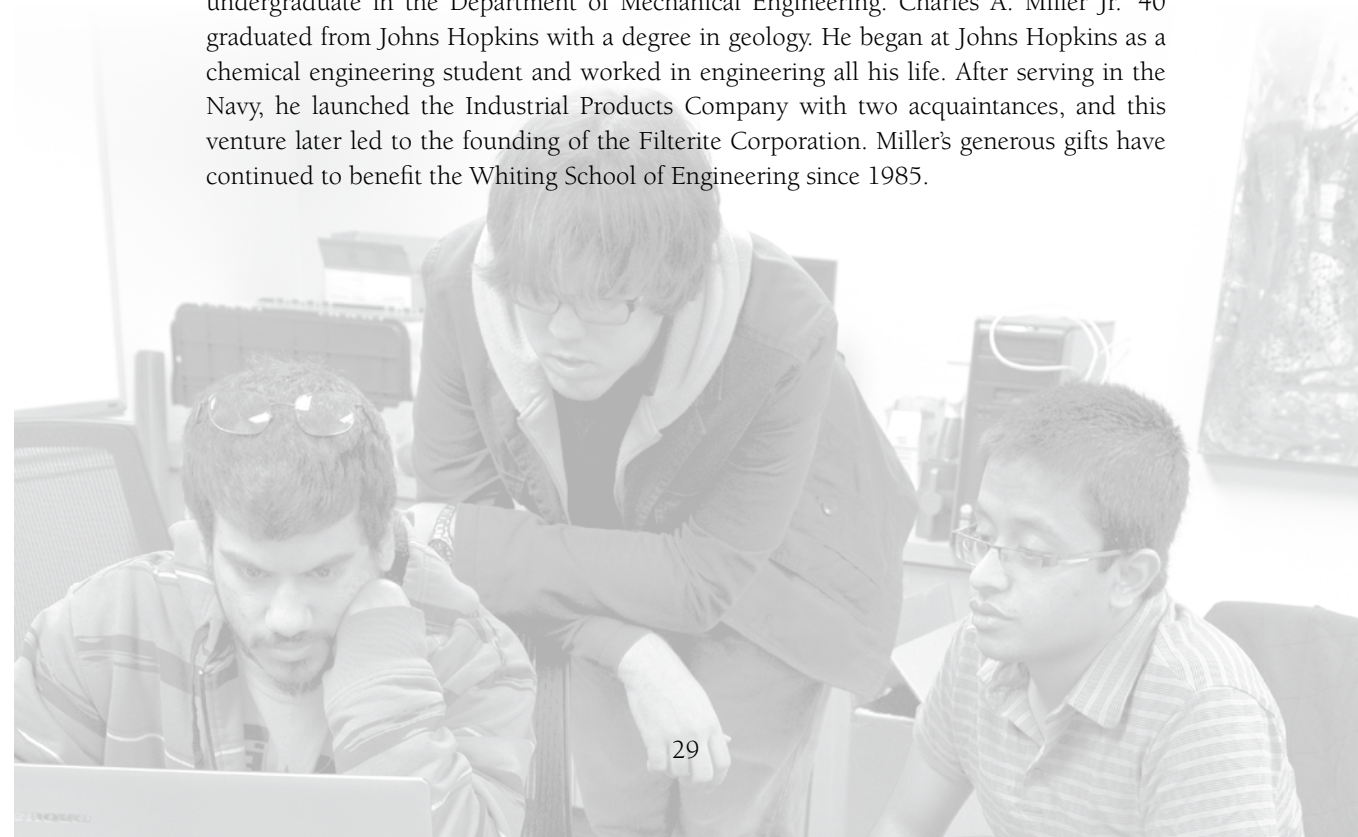
Eric Bressler is a graduating senior majoring in materials science and engineering. The majority of Eric's research has been in electrochemistry or biophysics, and he is currently trying to develop peptides that could carry drugs into the brain for treatment of cancer and other disorders. For the past four years, he has been actively involved in several groups on campus dedicated to sustainability, including Eco-Reps and Sustainable Hopkins Infrastructure Project.

DEPARTMENT OF MECHANICAL ENGINEERING

Presented by Louis Whitcomb

Charles A. Miller Award

The Charles A. Miller Award recognizes outstanding academic achievement by an undergraduate in the Department of Mechanical Engineering. Charles A. Miller Jr. '40 graduated from Johns Hopkins with a degree in geology. He began at Johns Hopkins as a chemical engineering student and worked in engineering all his life. After serving in the Navy, he launched the Industrial Products Company with two acquaintances, and this venture later led to the founding of the Filterite Corporation. Miller's generous gifts have continued to benefit the Whiting School of Engineering since 1985.



Brandon Lee is a senior majoring in mechanical engineering. He is a member of Pi Tau Sigma and an officer in Tau Beta Pi. He has worked for Dr. Vicky Nguyen in her lab to study mechanics of soft adaptive materials and in Joseph Katz's Laboratory for Experimental Fluid Dynamics. Next year, Brandon will further his studies in the field of robotics.

Dongsuk (Daniel) Shin is a senior in mechanical engineering. In the past, he has worked with John Thomas at the Applied Physics Laboratory and interned at GE Aviation. He is currently working with Noah Cowan at the Locomotion in Mechanical and Biological Systems Laboratory. He is a member of Tau Beta Pi and plans to pursue a PhD in mechanical engineering.

Creel Family Teaching Assistant Award

Teaching assistants play a key role in undergraduate education, and this award, established by George C. Creel '55, recognizes their effort, enthusiasm, and contribution to the undergraduate program of the Mechanical Engineering Department.

Akanksha Bhargava is a fourth-year PhD student in the Department of Mechanical Engineering. He joined Johns Hopkins in 2010 after finishing his bachelor's degree in mechanical and energy engineering from VIT University in India. He received his master's degree in mechanical engineering in 2013. Akanksha's research work focuses on computational bioheat transfer modeling and infrared thermal imaging. In his spare time, he enjoys good music and all kinds of art, particularly pencil portraits and photography.

Gowtham Garimella is from India and completed his undergraduate degree at the Indian Institute of Technology Bombay. He is currently in his second year of graduate studies in mechanical engineering. Gowtham also works as a research assistant in Advanced Systems Controls and Optimization Laboratory in the Laboratory for Computational Sensing and Robotics. His current area of research is in manipulation using micro aerial vehicles and path-planning for all-terrain vehicles.

Xiao Li is a second-year mechanical engineering master's student majoring in robotics. He is interested in the research of multi-robot systems and plans to pursue a PhD degree in the same field. Xiao enjoys basketball, snowboarding and Jet Skiing.

William Alexander (Al) Patterson is a Master of Science in mechanical engineering candidate graduating in December 2014. Hailing from Miami, he enjoys classical, bluegrass, and jazz violin; sailing; and robotics. While an undergraduate at Johns Hopkins, he was involved in the Outdoor Pursuits community as a backpacking, canoeing, and sailing leader and was a director of the Pre-Orientation program. As charter member and chair of the American Society of Mechanical Engineers, he started initiatives to encourage relationships between mechanical engineering students and professors, notably the Lunch with Professors program. His research interests include control of dynamical systems in robotics; past projects include designing, building, and testing a small unmanned aerial vehicle that deployed from a larger UAV in flight.

James F. Bell Award

This award was established by the Department of Mechanical Engineering in honor of Professor James F. Bell (1914–1995). Dr. Bell was a professor and professor emeritus in the Department of Mechanical Engineering from 1979 until his death. During his 50-year career at Johns Hopkins, Professor Bell worked continuously as an experimentalist in the field of nonlinear mechanics and dynamic plasticity, authoring more than 80 research papers and two books. Professor Bell's avocation was music: he played in the Hopkins Symphony Orchestra for more than 20 years. The James F. Bell Award recognizes outstanding research and scholarly achievement in mechanical engineering.

Edward (Ned) Samson is a junior engineering mechanics major with a mathematics minor. He is a member of the Locomotion in Mechanical and Biological Systems Laboratory in the Laboratory for Computational Sensing and Robotics under Noah Cowan. He was awarded a Vredenburg Scholarship in 2013 to spend two months at the University of Cambridge. He is also a member of the Johns Hopkins Film Society, Water Polo Club, and Cycling Team.

Daniel Willen is a graduating senior in the Department of Mechanical Engineering. He is a research assistant under Andrea Prosperetti, and previously worked as the assistant instrument designer in the Department of Psychology and Brain Sciences machine shop. Dan is a co-founder of TEDxJohnsHopkinsUniversity, a member of Pi Tau Sigma, and was the Treasurer of Pi Kappa Alpha. Dan is from Glastonbury, Connecticut, and enjoys skiing, hiking, and music. He will be pursuing a master's degree in mechanical engineering in the fifth-year BS/MS program at Johns Hopkins next year.

William N. Sharpe Jr. Award for Student Involvement

The William N. Sharpe Jr. Award for Student Involvement recognizes significant leadership or achievement by a mechanical engineering student in extracurricular activities. Professor William N. Sharpe Jr. initiated this award after receiving the Ralph Coats Roe Award of the American Society of Engineering Education in 2007. From 1983 to 1988, Professor Sharpe served as the founding chair of the Department of Mechanical Engineering after the formation of the Whiting School of Engineering, and then was chair again from 1991 to 1997.

Jennifer Herchek is a graduating senior in the Mechanical Engineering Department from a town near Philadelphia. She has been an integral member of the award-winning Johns Hopkins Baja team and was a teaching assistant for two freshman engineering classes. From her internship at General Motors, she learned that after graduation she would like to pursue a career in industry.

Robert George Gerstmyer Award

Robert G. Gerstmyer '43 received his bachelor's degree in engineering from Johns Hopkins and worked for the FMC Corporation after graduation. The Robert George Gerstmyer Award recognizes outstanding undergraduate achievement in mechanical engineering. It was established in 1993 by Mr. Gerstmyer's sons, in honor and memory of their father.

Edward August is a senior who will be graduating with a double major in mechanical engineering and chemistry.

Presented by Tim Weihs

Center for Leadership Education Best All-Around Course Assistant Award

Course assistants make an indispensable contribution to the Center for Leadership Education: assisting our faculty and staff members and working closely with students. The award was created in 2003 to honor the commitment and dedication of outstanding course assistants who have served our program throughout the year. Selection for the Best All-Around Course Assistant Award is based on faculty and staff evaluations and a clear, demonstrated commitment from the student who goes above and beyond the call of duty to support not only their designated course, but many of the programs and the courses we offer in the Center for Leadership Education.

Jeffrey Knox is a senior majoring in biomedical engineering with a minor in entrepreneurship and management. He has served as a course assistant in the Center for Leadership Education for six semesters, working on five different courses. Post-graduation, Jeff will take a position with Trinity Partners in Boston. He is from East Greenbush, New York.

Center for Leadership Education Entrepreneurship and Management Minor Course Assistant Award

Course Assistants make an indispensable contribution to the Center for Leadership Education: assisting our faculty and staff members and working closely with students. The award was created in 2003 to honor the commitment and dedication of outstanding course assistants who have served our program throughout the year. Selection for the Entrepreneurship and Management Minor Course Assistant Award is based on faculty and staff evaluations and a clear, demonstrated commitment from the student who goes above and beyond the call of duty to support an entrepreneurship and management course in the Center for Leadership Education.

Dana Berlin is a senior majoring in economics with a minor in entrepreneurship and management. She is currently the co-head course assistant for Introduction to Business and Managerial Finance. Dana is also one of three executive members of the Salant Student Investment Team, a member of Alpha Kappa Psi coed business fraternity, and an inductee of the Golden Key honor society. She has completed internships in investment management at Middleton Gardiner Group and in investment banking at Goldman Sachs. She will be working full time at Barclays Investment Bank after graduation.

Samuel Frishman is a junior mechanical engineering major with a minor in computer science. He is a member of the Pi Tau Sigma and Tau Beta Pi honor societies. His main interests are in robotics, and he is doing research on the development of MRI-compatible robots with Dan Stoianovici. In his spare time, he enjoys rock climbing and playing tennis and chess.

Alexander Spinos is a junior mechanical engineering major with a robotics minor from Midlothian, Virginia. Last summer, he worked for Ed Land at the medical campus on the design of hand orthotic assistive devices (a glove for stroke victims). He also worked with Sean Carver and Noah Cowan on their human rhythm-keeping research project. He has been a member of the Johns Hopkins Design/Build/Fly team since his freshman year and is the president and chief engineer of the team this year. He is also a member of Pi Tau Sigma, the Johns Hopkins Wind Ensemble executive board, American Society of Mechanical Engineers, and American Institute of Aeronautics and Astronautics.

Martha Whiting is a premedical junior studying mechanical engineering from Wayzata, Minnesota. She intends to go to medical school to study ophthalmology. She is a member of the Johns Hopkins Wind Ensemble and Flute Choir on campus, as well as the leadership team for Hopkins Christian Fellowship. She is a member of the Pi Tau Sigma mechanical engineering honor society, Tau Beta Pi engineering honor society, and Golden Key international honor society. She hopes to someday help perform a structural analysis of the trapeze and other circus arts.

American Society of Mechanical Engineers Award

This award is given in recognition of outstanding effort and accomplishment on behalf of the Johns Hopkins American Society of Mechanical Engineers student chapter.

Bobak Kiani is a mechanical engineering major with a minor in entrepreneurship and management from Philadelphia. He has been working in a research lab with Katz since freshman year, studying fluid properties of the ocean floor. Last summer, he interned at Project Risk Analytics, a small construction consulting firm in New York City. This summer, Bobak will be interning at Boston Consulting Group. He is also a member of Tau Beta Pi and Pi Tau Sigma and is an officer of the Johns Hopkins chapter of the American Society of Mechanical Engineers.

Center for Leadership Education Professional Communication Course Assistant Award

Course Assistants make an indispensable contribution to the Center for Leadership Education: assisting our faculty and staff members and working closely with students. The award was created in 2003 to honor the commitment and dedication of outstanding course assistants who have served our program throughout the year. Selection for the Professional Communications Course Assistant Award is based on faculty and staff evaluations and a clear, demonstrated commitment from the student who goes above and beyond the call of duty to support a professional communications course in the Center for Leadership Education.

Henry Strmac is a junior economics major with an entrepreneurship and management minor from Roswell, Georgia. At Johns Hopkins, Henry has been a course assistant in the Center for Leadership Education, a study consultant in the Office of Academic Support, and a member of the Beta Theta Pi fraternity. This summer, he will be in New York City interning at Bloomberg L.P. in their financial sales and analytics program and hopes to stay in the financial services industry upon graduation.



Milton S. Eisenhower Library Achievement Award

This award recognizes the juniors and seniors who have been inducted into Tau Beta Pi. A plaque listing their names will reside in the Milton S. Eisenhower Library.

Tau Beta Pi Appreciation Awards

Presented by Piyush Poddar

These awards are given from the Johns Hopkins chapter of Tau Beta Pi to its most active senior members.

Edward August is a senior mechanical engineering major with a double major in chemistry.

Craig Bohrsen majored in biomedical engineering and applied mathematics and graduated in December 2013. He was born in Singapore but lived in Manchester, England, prior to college. While an undergraduate, he completed research projects in computational biology and bioinformatics. He intends to pursue a PhD.

Po Wei (Billy) Kang is a senior biomedical engineer born in Taiwan and from Rochester Hills, Michigan. Billy has worked with Pamela Zeitlin at the Johns Hopkins Cystic Fibrosis Center, researching treatment and cures for the genetic disease cystic fibrosis. Currently, he is working with David Yue at the Calcium Signals lab to research the molecular mechanism behind calcium modulation of voltage-gated sodium channels in skeletal muscles. He also tutors and guides inner-city Baltimore high school children through the Incentive Mentoring Program.

Ashwyn Sharma is a graduating senior from Overland Park, Kansas, majoring in biomedical engineering. He conducts research under Feilim Mac Gabhann in the Institute of Computational Medicine, studying vascular endothelial growth factor signaling and angiogenic mechanisms. He is also currently working on a design team to develop a system for improved labor management in low-resource settings. Next year, Ashwyn will be attending medical school.



Irini J. Maroulis Award

Presented by Edward Scheinerman

This award was established by Maria Maroulis '96, '01, and is dedicated to the memory of her mother, Irini J. Maroulis. The award recognizes an undergraduate engineering student who best exemplifies her dedication to community service and outreach.

Toni-Rose Guiriba is a junior in materials science engineering on the nanotechnology track. Toni-Rose was a leader for her biotechnology and engineering clubs, organizing open houses and outreach events for local middle and high school students in STEM including robotics and wet lab experiments. She also volunteered for the Maryland Science Center during winter break to lead interactive hands-on activities for non-science visitors of all ages. As secretary and, later, president of her student government association, she arranged student visits to Bridge Park Nursing Home for students to listen to senior citizens' stories and sign songs for them. Toni-Rose also started a sponsored supper twice a year for families housed in Believe in Tomorrow Children's House at Johns Hopkins to provide a break to the stress of dealing with serious illnesses.

Engineering for Professionals Excellence in Teaching Award

Presented by Dexter Smith

This award recognizes excellence in instruction and dedication to Engineering for Professionals.

Allan Bowers is a native of Baltimore and attended an engineering preparatory high school (Baltimore Polytechnic) and then Johns Hopkins at the Homewood campus, where he received a BS in electrical engineering. Bowers has worked for Bendix Communications, Lockheed Martin and the SI Organization. While based in Colorado Springs, Allan completed additional coursework in the field of computer science. His career with Lockheed Martin progressed from individual contributor to small team lead to large team lead to first line and then second line management. He has managed departments as large as 150 engineers. In addition, he has performed as the program manager for several programs and has taught for the Johns Hopkins Engineering for Professionals program for 20 years. Allan and his wife Debbie have three grown children and ten grandchildren.

Engineering for Professionals New Instructor Award

Presented by Dexter Smith

This award is given to instructors who have recently joined Engineering for Professionals. They have had an immediate positive impact on the program and are expected to be of excellent service to their program for many years to come.

Jesus Caban is a research scientist at the National Intrepid Center of Excellence at the Naval Medical Center in Bethesda, Maryland. He is also a guest scientist at the Clinical Center at the National Institutes of Health. His research focuses on multimodal data analysis, visualization systems, image processing, and machine learning. In 2009, he obtained a PhD in computer science from the University of Maryland, Baltimore County, and a master's degree from the University of Kentucky in 2005.

Elizabeth Logsdon is a full-time lecturer in applied biomedical engineering at Johns Hopkins with a focus on online education. She holds a PhD in biomedical engineering from the University of Virginia, where her research focused on matrix-guided regulation of vascular smooth muscle differentiation from embryonic precursors. She continued to work in vascular biology, completing a fellowship in the Institute for Computational Medicine at Johns Hopkins. Here, she studied both computation models of adipose-derived bone tissue engineering and endothelial cell decision-making in angiogenesis. Logsdon also holds a Bachelor of Science in chemical engineering from the University of Virginia.

Jay Marble has current research interests in the area of electronics warfare. His background includes algorithms for imaging, physical modeling, and object detection/classification. He received a Bachelor of Science degree in electrical engineering in 1992 from the University of Illinois at Urbana-Champaign and a Master of Science in electrical engineering in 1995 from Johns Hopkins. From 1996 to 2003, he was a research scientist at the Environmental Research Institute of Michigan, where he implemented many detection and synthetic aperture radar imaging algorithms. In 2007, he completed a PhD in electrical engineering at the University of Michigan in Ann Arbor. Since 2006, he has supported the U.S. Army and Navy as a civilian researcher.

J. Stephen Topper is a faculty member with the Johns Hopkins Applied Physics Laboratory as well as the Engineering for Professionals program.

Johns Hopkins Alumni Association Excellence in Teaching Award

Presented by Andrew Douglas

This award honors extraordinary dedication to the university's teaching mission, exceptional performance in the classroom, and a continuing commitment to tomorrow's leaders.

Yair Amir is a professor of computer science and director of the Distributed Systems and Networks Lab at Johns Hopkins University, where his goal is to invent high performance, survivable, and secure distributed systems that make a difference. Amir holds a Bachelor of Science and a Master of Science from the Technion – Israel Institute of Technology, and a PhD from the Hebrew University of Jerusalem in Israel. He served on various technical program committees including co-chair of the Institute for Electrical and Electronics Engineers/International Federation for Information Processing Dependable Systems and Networks for 2015, and as an associate editor for the Institute

David Flanigan supports multiple government sponsors in the early-stage systems engineering phases of development, working with government, industry, and academia to plan and execute analytical studies in support of advanced concepts and integrated acquisition strategies. Before arriving at the Johns Hopkins Applied Physics Laboratory, Flanigan was a surface warfare officer on board two AEGIS cruisers and was stationed in Washington, D.C. Flanigan holds the following degrees: a Bachelor of Science in physics from the University of Arizona, a Master of Science in information systems and technology from Johns Hopkins, a Master of Science in systems engineering from Johns Hopkins, and a PhD in systems engineering and operations research from George Mason University. Flanigan is a member of the International Council on Systems Engineering and the Military Operations Research Society, and his research interests lie in requirements elicitation, system architecting, and system analysis.

Patrick Hudson received his bachelor's degree in naval architecture from the U.S. Naval Academy and his Master of Science in Engineering and PhD in civil engineering from Johns Hopkins. He is the president of Moment Engineering Inc., a naval architecture and ocean engineering firm in Annapolis, Maryland. He specializes in coastal and offshore engineering, including ships and offshore platforms. Hudson has taught civil engineering graduate courses for the Johns Hopkins Engineering for Professionals program since 2002.

Ann Kedia is an instructor in the Johns Hopkins University Whiting School of Engineering Technical Management program. Ann is leading the Knowledge Sharing, Collaboration, and Innovation Program at Johns Hopkins Applied Physics Laboratory. Her background includes extensive experience leading technical programs and organizations in the high technology, software development, and financial services industries. She received a BS in chemical engineering from Cornell University and an MS in technical management from Johns Hopkins.

Stanislaw Tarchalski holds a Bachelor of Science in electrical engineering from Rutgers University and a Master of Science from Johns Hopkins. Tarchalski teaches introductory project management and systems engineering within the technical management curriculum for professionals, and he has also assisted with redesigning the curricula for project management and systems engineering.

William Roper has spent a lifetime engaged in civil and environmental engineering and public policy. He has developed and led major research and development programs in areas such as dredging operations, wetlands, construction productivity, invasive species control, energy efficiency and geospatial technology. For many years, Bill served as the director of the U.S. Army Corps of Engineers Worldwide Civil Works Research and Development program. He also served as director of the U.S. Army Topographic Engineering Center. Bill's professional experience includes senior management positions in the U.S. Department of Transportation, U.S. Environmental Protection Agency, U.S. Army, Arlington County Government, academia, and the private sector. Additionally, Bill has been active with the Water Science and Technology Board, the Infrastructure and Constructed Environment Board, and the Transportation Research Board of the National Academy of Engineering.

for *Electrical and Electronics Engineers Transactions on Dependable and Secure Computing*. He is also a creator of the *Spread* group communication toolkit (www.spread.org), used in thousands of installations around the world in commercial, academic and government settings. Additionally, Amir led *Secure Spread*, developing the first robust key agreement protocols, as well as the *Spines* overlay network platform (www.spines.org), the *SMesh* wireless mesh network (www.smesh.org), the first seamless 802.11 mesh with fast lossless handoff, and the *Prime Byzantine Replication engine* (www.dsn.jhu.edu), the first to provide performance guarantees while under attack. More recently, he led the development of the *LTN cloud* (www.ltncloud.com), offering a global transport service for broadcast-quality live TV. That service was adopted by major broadcasters like CNN, Fox, ABC, Bloomberg, CBS, CNBC, NBC, PBS, Turner and others.

William H. Huggins Excellence in Teaching Award

Presented by Andrew Douglas

This award was established in 2001 through the estate of William H. Huggins, professor emeritus in the Department of Electrical and Computer Engineering, and recognizes an outstanding faculty member at either the undergraduate or graduate levels who demonstrates dedication to students.

Eric Rice has been operating his consulting practice and teaching communication skills for more than 25 years. During that time, he has developed programs and authored scores of papers and training materials/videos and monographs for clients. Perhaps more importantly, students in the classes he has taught have performed dozens of projects for organizations that have helped the organizations grow and students find jobs. Since joining the Johns Hopkins community, Rice has developed and taught a series of courses in management topics ranging from negotiations and conflict resolution through ethics and human resources to managing and marketing social enterprises. Additionally, he directs the Master of Science in Engineering Management program within the Center for Leadership Education. Eric has a master's degree in education psychology and a PhD in educational sociology, both from the University of North Carolina at Chapel Hill.

Robert B. Pond Sr. Excellence in Teaching Award

Presented by Andrew Douglas

This award is given for commitment to and excellence in instruction, success in instilling the desire to learn, and dedication to undergraduate students. The award is in honor of Robert B. Pond Sr., professor emeritus in the Department of Materials Science and Engineering. He joined the faculty of Johns Hopkins University in 1947 as its first metallurgist and retired in 1988. With Robert E. Green Jr., he was the co-founder of the Materials Science and Engineering Department.

Orla Wilson received her Bachelor of Science and Master of Science (1996) in chemistry from Dublin City University. Following three years at the University of Melbourne, Australia, working toward the goal of using nanoparticles to improve the security of polymer banknotes, and a year in the Materials Science and Engineering Department at the University of Illinois, Urbana-Champaign, Wilson pursued her PhD in materials chemistry at Texas A&M University. Her dissertation was titled "Structure-function relationships in dendrimer-encapsulated metal nanoparticles." Wilson has been a lecturer in the Materials Science and Engineering Department at Johns Hopkins since July 2008. She enjoys instructing the undergraduate lab class and senior design as well as teaching nanotech electives each semester.

The George M.L. Sommerman Engineering Graduate Teaching Assistant Award

Presented by Andrew Douglas

This award is given to students who have demonstrated excellence and talent in instructing undergraduate students as a teaching assistant. This award was established by electrical engineering alumnus George M.L. Sommerman '29, '33, who worked with former Deans Whitehead and Kouwenhoven during his career at Johns Hopkins.

Carmen Kut is an MD/PhD student in the Department of Biomedical Engineering at Johns Hopkins, and her research focuses on optical imaging in brain tumor management. She received her undergraduate degree in biomedical engineering at Johns Hopkins and was selected by USA Today as one of 20 college students nationwide for the 2008 All-USA All-Stars Academic First Team. For the past 10 years, she has served as the founder and president of *Medical and Educational Perspectives*, an organization that promotes medical entrepreneurial education and supports the development of low-cost medical devices. Her group has since launched two Johns Hopkins elective courses for the evaluation and development of medical products both in India and in the U.S.

Capers and Marion McDonald Award for Excellence in Mentoring and Advising

Presented by Andrew Douglas

This award, created by Capers and Marion McDonald, is given to honor those teachers, researchers, and administrators who have consistently supported the personal and professional development of their students.

Soraya Bailey has always had a strong interest in producing elegant engineering solutions to complex problems, an aptitude she formally embraced during her education in engineering (bachelor's in applied science mechanical engineering, University of Ottawa, 2006; Master of Science in biomedical engineering, University of Calgary, 2009). When she entered the work force, this knack for overcoming technical challenges inspired her to seek out a role as a product developer at Tangent Engineering, where she thrived in a fast-paced environment, managing multiple projects in a broad range of industries. During this time, Soraya maintained a passionate commitment toward teaching young engineers the fundamentals of engineering – a position at which she excelled. Her arrival at Johns Hopkins as the support engineer for the mechanical engineering senior design course gave her the opportunity to combine her love of teaching and mentoring with her passion for the exciting world of product development and design.

