

## A Summer of Success University Enters Into Research Alliances; Faculty Win MURI Awards

WHILE THE PACE OF CAMPUS LIFE may have slowed during the summer break, the university's research enterprise was moving along at full speed. The university has hosted a strategic alliance forum with the **Lockheed Martin Corporation**, and signed a research and education agreement with the **Naval Air Warfare Center Aircraft Division** at Patuxent River, Md. In other news, three faculty members were awarded the Department of Defense's prestigious **Multidisciplinary University Research Initiative Program (MURI)** award.

### Lockheed Martin Research and Technology Exchange

Recently, the university hosted one of the first **Lockheed Martin technology exchanges** where top research officials from all Lockheed Martin business units across the country came to campus to discuss potential research collaborations. During the two-day meeting 30-some faculty members presented areas of research previously identified as of potential interest to the corporation, from the social sciences to aerospace engineering.

"This was an extremely positive exchange," says **Mel Bernstein**, vice president for research. "We came out of this meeting with a better understanding of the significant overlap between the two groups, given the type of expertise we have on campus and the challenging problems that Lockheed Martin would like to have addressed."

"This developing strategic alliance is a very unique opportunity for the university and one

that will greatly benefit our research faculty," adds **Ken Gertz**, associate vice president for research development.

The strategic partnership will enable university faculty to team with a world-class industrial partner to confront challenging real-world problems. Discussions are ongoing to have technical staff from Lockheed Martin teach and work on campus, engage in joint seminars and conferences and share research facilities.

Also, there will be more opportunities for students to work with Lockheed Martin on cutting-edge, real-world projects and as a result Lockheed Martin will have enhanced access to "the best and brightest" students as potential future employees.

"We're eagerly looking forward to the opportunities and possibilities that lie ahead," says Bernstein.

### Research and Education Partnership Agreement with PAX River

As the **Naval Air Warfare Center Aircraft Division** at Patuxent River, Md., or NAWCAD, has rapidly expanded in recent years, there has been an increased need for trained personnel and the naval base has looked to the university for assistance. As a result, the university has entered into an education and research partnership with NAWCAD. The agreement is focused on developing collaborative research and engineering projects as well as educational activities, including degree programs. This includes NAWCAD funding research projects of mutual interest to both institutions.



### MURI Awards

For the second year in a row, the university has won three awards from the highly competitive **Department of Defense's Multidisciplinary University Research Initiative Program (MURI)**. Of the 30 awards given this year, only one other school, Carnegie Mellon, received three. And, the university is collaborating on three additional new MURI awards.

The university will lead research on the effect of culture on collaboration and negotiation; remote multi-modal biometrics for the maritime domain; and rotorcraft brownout. The principal investigators for these three programs are, respectively, **Michele Gelfand** (top), professor of psychology; **Rama Chellappa** (middle), professor of electrical and computer engineering; and **J. Gordon Leishman** (bottom), professor of aerospace engineering.

### SCHOLARSHIP AND RESEARCH CELEBRATION



More than 300 people gathered in the atrium of the Art/Sociology Building on May 1 for a **celebration of scholarship and research** undertaken by Maryland faculty in the past year. The event was sponsored by the Division of Research and the Provost's Office. "We wanted to bring our talented faculty together and show our appreciation for their commitment and recognize the impact of their excellent work," says Mel Bernstein, vice president for research.

From left, Eric Seagren (Civil Engineering), David Ross (Environmental Science & Technology), Jennifer Becker (Environmental Science & Technology) and Robert Hill (Environmental Science & Technology).

## THE FEDERAL CORNER AUGUST UPDATE AND ANALYSIS FROM THE OFFICE OF FEDERAL RELATIONS

### Presidential Candidates Support Science and Technology Objectives

The **Rising Above the Gathering Storm Report** reiterated the relevance of science and technology in ensuring America's competitiveness edge against other emerging countries. The recent presidential campaign has seen both nominees come out extremely supportive of similar science and technology objectives.

Supporting research and development in the creation of renewable energy, Senator Barack Obama revealed an energy plan that includes an investment of \$150 billion in the span of a decade. Senator John McCain, on the other hand, unveiled the Lexington Plan, which focuses on the exploration for oil and gas. He further promised to invest \$2 billion annually in clean coal

research. Along similar lines, Obama has stated that he would increase resources for the development of low-carbon coal technology and support coal-to-liquid fuels if they emit 20 percent less carbon than conventional gas.

On supporting research on health, both senators have expressed support for stem cell research. While Obama has promised federal funding for research on embryos used for in-vitro fertilization, the McCain camp will refrain from funding embryo harvesting. Support of this stature will bode well for the science and technology community, however, the likelihood of a continuing resolution for funding is unfortunate news for researchers.

Look to the Federal Corner for more information regarding higher education and the federal government. If you have a specific matter you would like to see discussed in this column, please contact Rae Grad, director of federal relations, at [rgrad@umd.edu](mailto:rgrad@umd.edu).

## NEWS You Can Use

FROM THE OFFICE OF RESEARCH ADMINISTRATION AND ADVANCEMENT (ORAA)

### New Web Site

ORAA's Web site has a new look. In an effort to provide information in a timely and efficient manner, ORAA's Web site has been redesigned to organize information that individuals use for proposal preparation and award administration. Check out the new look at [www.umresearch.umd.edu/ORAA](http://www.umresearch.umd.edu/ORAA). Comments and suggestions on content are welcomed. Send emails to [oraaweb@umd.edu](mailto:oraaweb@umd.edu)

### COEUS Electronic Research Administration System

COEUS® is the university's new electronic research administration system that replaced RAA in April 2008, as the system of record for proposal and award data. COEUS was originally developed by MIT and is one of the first cradle-to-grave electronic research administration systems. The system allows for electronic proposal creation, internal routing to obtain proper approvals and eventually, electronic proposal submission to Grants.gov. Initially ORAA is implementing the Proposal Development, Institute Proposal, Award and Subcontract modules.

COEUS will provide a secure location for principal investigators to interact in the research environment by allowing them to search for funding opportunities available in Grants.gov, create and route proposals online. User roles restrict or provide access to the different modules based on roles and rights assigned to an individual.

COEUS offers a wide variety of search and sort options and report formatting in three main modules. A relational tool called "Medusa" can chart the connections among all proposals, awards and subcontracts.

The COEUS fall training schedule may be viewed at [www.umresearch.umd.edu/ORAA/memos/61.html](http://www.umresearch.umd.edu/ORAA/memos/61.html). For more information email [coeus-help@umd.edu](mailto:coeus-help@umd.edu).

In the coming months, we will continue to introduce you to new faculty and research scientists who have joined the Maryland research community.



**Vincent Lee** is an assistant professor of cell biology and molecular genetics. His research interests include host-pathogen interactions, molecular mechanisms of pathogenesis for *Pseudomonas aeruginosa* and allosteric regulation of molecular complexes.



**Shannen Hill** is an assistant professor of African art history. Her research is based in South Africa, with studies in the visual culture of political rhetoric and trauma, war and representation. Her forthcoming book is called "Biko and Black Consciousness in South African Visual Culture."



**Nikhil Chopra** is an assistant professor with the Department of Mechanical Engineering and the Institute for Systems Research. His broad research goal is to develop a fundamental understanding of synchronization and control of networked dynamical systems interacting over unreliable communication networks.



**Darrell Gaskin** is an associate professor of health economics with the African American Studies Department. His primary research interests are safety net hospitals, access to health-care for minorities and other vulnerable populations and healthcare disparities.



**Christopher Monroe** is the Bice Sechi-Zorn Professor of Physics and a Fellow of the Joint Quantum Institute at Maryland and NIST. His research interests include trapped ion quantum computing, quantum networks with atoms and photons, microfabricated atom trap structures and interactions between laser-cooled atoms and ions.

## Valentine to Play Key Role in Helping Pursue Research Funding

According to **Karl Valentine**, the new assistant vice president for corporate and foundation relations, the university's potential to raise research funding has always been there. However, "The university can do more to advertise and inform those in a position to make gifts and grants," says Valentine, who brings with him 22 years of experience in fundraising with such prestigious institutions as the Wharton School and other medical and engineering schools.

And, in his new role, Valentine will be assisting in that process.

On the corporate side, Valentine is working to establish strategic alliances, "conversing with faculty one on one and then going out and talking with corporations and letting them know we have faculty that can look at complex problems, address issues and provide solutions," he says. "I can assist faculty in brokering these relationships."

In regards to foundations, Valentine notes that there has been an increased emphasis on supporting funding for the basic sciences. "A lot of foundations were created to fight particular diseases and then realized it all starts with basic science research," he says. "That is a big focus here at the university. We have a diverse faculty with strengths across the board."

Overall, Valentine is looking to support funding research across the campus, from the sciences to the humanities. Adding, "The bottom line is all about building relationships between myself and our faculty and between our faculty and corporations and foundations. That's why I'm here."



## FACULTY AWARDS & HONORS



**ICHIRO TAKEUCHI**, an associate professor with the Department of Materials Science and Engineering, is among 100 of the nation's most outstanding young engineers invited to attend the National Academy of Engineering's 2008 U.S. Frontiers of Engineering Symposium. The annual symposium brings together a select group of engineers from industry, academia and government to discuss pioneering research.



**GERALD GALLOWAY**, research professor and Glenn L. Martin Institute Professor of Engineering in the Department of Civil and Environmental Engineering, has won the 2008 American Association of Engineering Societies Norm Augustine Award. Galloway was recognized for his continuous work on promoting national policy on floodplain and wetland management.



**MICHAEL PECHT**, George E. Dieter Professor of Mechanical Engineering, was chosen to receive the IEEE Reliability Society's Lifetime Achievement Award. This recognition is the highest reliability honor awarded and was given to Pecht for his major contributions to the Reliability Society, reliability research and education and to the reliability community as a whole.



**MAUREEN CROPPER**, professor of economics, has been selected to the National Academy of Sciences. Cropper has focused her research on environmental and natural resource economics for the past three decades. Her contributions to the field have been recognized by the Association of Environmental and Resources Economists, which named her one of its first Fellows.

## Ottinger Named New Associate Vice President for Research Compliance



**Mary Ann Ottinger** has been appointed the new associate vice president for research compliance and policy in the Division of Research. Ottinger's responsibilities will include coordinating and overseeing the university's compliance program. Compliance areas include animal care and use, protection of human research subjects, conflict of interest, research integrity, intellectual property and export controls.

Ottinger, who earned her Ph.D. and master's degree in behavioral neuroendocrinology, is a professor in the Department of Animal and Avian Sciences. She has also served as interim associate dean of the university's graduate school and has held appointments with NIH, NSF and the Smithsonian Institution; among others.

## UPCOMING EVENTS & CONFERENCES

### New Faculty Research Orientation

**Wednesday, Sept. 24, 2 p.m. to 4 p.m.**

Marie Mount Hall, Maryland Room

Reception for new faculty and deans from 4 p.m. to 5 p.m.

For more information: [geronimo@umd.edu](mailto:geronimo@umd.edu)



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The Division of Research publishes [RESEARCH@MARYLAND](mailto:RESEARCH@MARYLAND) several times per semester. Its goal is to better inform and connect the research community at the University of Maryland. Your comments and suggestions are welcome. Please email them to Anne Geronimo, Division of Research, at [geronimo@umd.edu](mailto:geronimo@umd.edu).

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