WASHINGTON UPDATE
BY TIM LESHAN, VP FOR GOVERNMENT RELATIONS

Super Committee
The congressional “super committee” tasked with developing a deficit-reduction plan by November 22 did not reach consensus by the November 23 deadline. As a result, Congress moves to “sequestration,” automatic across-the-board budget cuts of 9 percent to both domestic and military spending in 2013. There will be attempts to reduce these cuts. President Obama said he would not back away from the sequestration cuts.

FY12 Appropriations
Congress has approved the FY12 appropriations bills. Funding for many scientific research and innovation accounts that Northeastern relies on has been spared, if not slightly increased. The President had not signed the appropriations package at the time of writing, but was expected to do so.

National Science Foundation (NSF)
NSF will see a $173 million increase to $7 billion for FY12. This includes a $155 million increase for NSF Research and Related Activities, including research conducted by the Social, Behavioral, and Economic Sciences Directorate.

National Institutes of Health (NIH)
The NIH budget will be $30.7 billion, $299 million above FY11. The bill assumes the NIH will support the same number of scientifically meritorious research project grants as last year. It also includes the new National Center for Advancing Translational Sciences (NCATS).

Department of Homeland Security (DHS)
The bill provides a total of $39.6 billion in funding for DHS, a decrease of $2 billion below last year. This includes $688 million for the Science and Technology Directorate, a cut of $159 million from FY11.

Department of Energy (DOE)
The bill provides $32 billion for Energy and Water programs—including the Department of Energy—a slight increase of $328 million over FY11. DOE science research programs would increase $43 million to $4.9 billion.

Department of Defense (DoD)
DoD will receive $618.1 billion for the base defense budget, an increase of $5 billion. Funding for basic research (6.1) would increase from $1.95 billion to $2.12 billion.

National Institute of Standards and Technology (NIST)
NIST will receive $751 million, a $33 million increase. This includes $567 million for the NIST Scientific and Technical Research and Services Account, an 11.6 percent increase over FY11. The Technology Innovation Program that funds the VOTERS program was eliminated.

More than 250 students, faculty, and alumni enjoyed a week of seminars, networking luncheons, a reception featuring Northeastern entrepreneurs, and news of an exciting gift as the Center for Research Innovation (CRI) hosted Global Entrepreneurship Week in mid-November.

“This week was tangible evidence of the passion for entrepreneurship within the Northeastern community,” said CRI director Tracey Dodenhoff. “All of the events were well-attended, some with standing-room only, and the collaboration with student groups made it even more engaging.”

CRI hosted networking luncheons and daily breakfast discussion sessions, with topics ranging from IP protection to venture funding. The CRI reception featured a keynote address by crowdsourcing entrepreneur Ben Kaufman of Quirky.

Hosting Global Entrepreneurship Week has been one of many accomplishments for CRI, which was established less than a year ago by a generous gift from Richard D’Amore, BA 76.

“One of the priorities for CRI was to turn around the technology transfer function for the university,” Dodenhoff said. “We did that by restructuring and hiring experienced commercialization directors and a licensed patent attorney. Now with service as our main focus, we are already seeing an increase in disclosure rates and licensing activity.”

CRI is also offering business development services to start-up companies affiliated with Northeastern and facilitating interactions with potential industry partners, including Avon and Johnson & Johnson, Dodenhoff said.

In addition to these services, CRI is piloting new programs to foster entrepreneurial success. A pilot grant program will offer resources for early-stage prototype development—timely, given the announcement of a planned gift of a 3D printer from Z Corporation, a longtime collaborator with Professor Tucker Marion. The printer will simplify product prototyping with development and early-stage innovations by start-up companies at the university.

The CRI staff is excited to be leading the Research & Scholarship Expo this spring. “The Research Expo is being recast not only to highlight the strength of student and faculty research at the university, but to expand opportunities for engagement with outside industry, venture investors, and experienced alumni,” said Dodenhoff. Extended hours for the event will also enable a deeper evaluation of projects by judges, culminating in a high-profile awards ceremony.

SELECTED FUNDED PROJECTS
Kaushik Chowdhury, Deniz Erdogmus, and Gunnar Schommer, assistant professors of electrical and computer engineering, secured National Science Foundation support for cyber-physical systems and their design rules when there is human inference and interaction in the loop.

Agnes Chan, professor of computer and information science, and David Kaell, professor of electrical and computer engineering, have received funding from the National Science Foundation to provide an education pipeline of excellence for information assurance practitioners.

Professor Michael Silevitch and Associate Professor Charles DiMarzio, both in electrical and computer engineering, have received a National Science Foundation I-Corps grant to develop a marketable technology to measure melanin coloration in the skin.

Distinguished Professor of Civil and Environmental Engineering Mishac Yegian and Akram Alshawabkeh, the George A. Snell Professor of Engineering, received National Science Foundation support to study soil liquefaction under moderate earthquake stress.
Faculty are invited to submit proposals for the 2012–2013 Tier 1 Interdisciplinary Research Seed Grant Program. Proposals should be submitted to their respective deans’ offices by February 6, 2012.

In announcing the deadlines for the coming year, the Office of the Senior Vice Provost for Research and Graduate Education noted that the focus would be on proposals addressing the university’s global research themes of health, security, and sustainability. “We anticipate that up to half of the awards will be for projects that advance research in these strategic areas,” said Senior Vice Provost for Research and Graduate Education Met Bernstein.

For more information about the program, the review process and how to apply, please visit northeastern.edu/research/interdisciplinary_grants

The Pop-Up Open Lab was launched in December, featuring the research of Lisa Feldman Barrett, Distinguished Professor of Psychology, and the Interdisciplinary Affective Science Laboratory. This new series of open house events invites faculty and students to explore the innovative research happening in laboratories and centers across Northeastern’s campus in an informal, interactive setting.

Sponsored by the Office of the Provost, and held each semester, pop-ups bring the university community together to learn about their colleagues’ work and potentially spark new, interdisciplinary education and research initiatives and collaborations.

The Interdisciplinary Affective Science Laboratory studies human emotions—specifically, what they are and how they function in the economy of the mind. The research, which includes areas such as emotion perception and gossip, combines experiential, behavioral, psychophysiological, and brain-imaging techniques. Faculty and students who participated in the lab’s pop-up, the Chocolate and Happiness Experiment Open Lab, ate, mixed, mingled, and participated in student-led experiments that highlight the lab’s work. One experiment called “What are You Looking At?” used eye tracking to explore the role of emotion in visual attention. Another used continuous flash suppression to explore the relationship between vision, feelings, and attraction in an online dating context.

“Mark of a great university is its ability to create opportunities to give science away— to students, colleagues and members of the general public,” said Barrett. “In our lab, we are both excited and grateful for this chance to show what the science of emotion looks like from an insider’s view.”

Visit northeastern.edu/research/popup for information on future events

UPCOMING RESEARCH EVENTS

January 16–February 5
“Art” by Yasmina Reza
A production of the award-winning comedy “Art,” produced by New Repertory Theatre, Watertown, MA. Directed by Antonio Ocampo-Guzman with set and lights by Justin Townsend, assistant professors of theatre. For more information: newrep.org

January 17
Northeastern Marine Science Center, Nahant, MA
7:00 PM
Conservation Research in the Stellwagen Bank National Marine Sanctuary
This event is part of the Northeastern Marine Science Center Monthly Lecture Series.
Speaker: David Wiley, research coordinator; Stellwagen Bank National Marine Sanctuary

February 26
Blackman Auditorium, Northeastern University
The Physics of Superheroes
Hosted by the College of Science in association with the American Physical Society March meeting.
Free and open to the public.
Speaker: Jim Kakalios, Taylor Distinguished Professor in the School of Physics and Astronomy at the University of Minnesota

March 29
Caban Center, Northeastern University
11th Annual Research & Scholarship Expo
Sponsored by the Center for Research Innovation at Northeastern University

April 10
Raytheon Amphitheater and Curry Student Center, Northeastern University
8:30 AM–7:00 PM
School of Nursing Annual Research Symposium
A citywide day of research, education, and scholarship

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FACULTY NEWS

Professor Hortensia Amaro, associate dean of Bouvé College of Health Sciences and director of the Institute on Urban Health Research, was inducted into the Institute of Medicine in October 2011. Amaro’s nationally recognized work includes developing an innovative integrated model for the treatment of substance abuse, mental illness, trauma, and HIV/AIDS. She has forged vital connections between public health research and practice. Terry Fulmer, recently appointed dean of Bouvé, was inducted in 2010.

Alessandro Vespignani, Sterenberg Family Distinguished University Professor, has been elected to the physics and engineering sciences branch of the Academy of Europe for his research on the spread of epidemics. Some 2,300 members, including more than three-dozen Nobel Laureates, currently represent a diverse range of disciplines, such as medicine, mathematics, and biological sciences.

Fareena Sultan, of the marketing group in the College of Business Administration, was awarded a “Top Scholar” designation by the University of Bocconi in Milan, Italy. The award was based on Professor Sultan’s research expertise in digital marketing, with special recognition for her research on mobile marketing. The recognition also extends to the college’s marketing group.

INaugural Pop-Up Open Lab and Reception

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