



## ChemCore: Northwestern's "Chemical Gunslingers"

Karl Scheidt, chemistry, enjoys asking "What if?" questions.

"What if you could take tumor cells and keep them from migrating?" he asks. "What if we could make a molecule that would keep tumor cells from undergoing metastasis?"

The list of questions that Scheidt asks himself on a daily basis is endless. Finding an answer to one that could impact society and medicine is his ultimate reward. But the pathway from a biological question to its answer sometimes hits a dead end after the development of an idea and the screening of a compound library or enzyme assay.

"Researchers have access to very advanced biological screening technologies," Scheidt says. "But where do you go from there? The next stop is at ChemCore."

Scheidt founded ChemCore just two years ago as a part of the Center for Molecular Innovation and Drug Discovery (CMIDD), which he co-directs with Raymond Bergan, medicine: hematology-oncology.

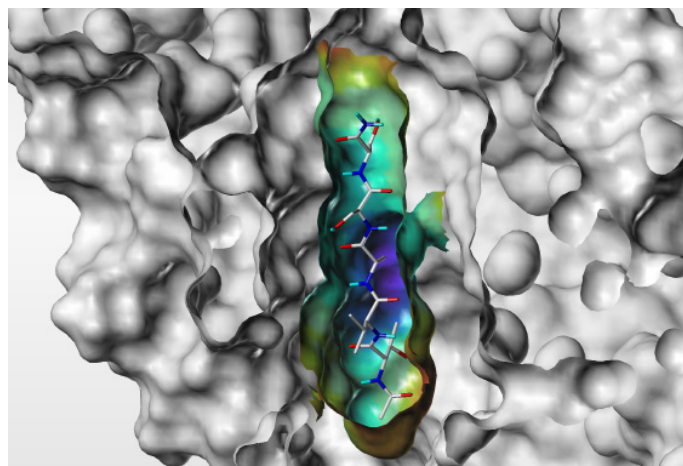
ChemCore is located in Silverman Hall on the Evanston campus and is a key component of the Chemistry of Life Processes Institute's suite of cutting-edge facilities. Supported in part by a Lever Award from the Chicago Biomedical Consortium, this one-of-a-kind resource provides synthetic and medicinal chemistry, compound purification, and molecular modeling services to researchers inside and outside of Northwestern.

Three of the four research scientists on staff at ChemCore — Chris Holmquist, Rama Mishra, and Gary Schlitz — are veterans of the pharmaceutical industry. Scheidt affectionately refers to them as "chemical gunslingers" due to their adventurous ability to plow into any and every "What if?" question presented to them.

"These guys don't just make molecules, they guide the small molecule discovery process," says Scheidt who directs the core. "They look at compounds and design new routes. They can really take investigators in new, high impact directions because they don't just buy what's commercially available, which is the typical approach. They create tailor-made compounds to answer specific hypotheses. It's opening new doors and generating new funding opportunities rather than being limited to what's already on the shelf."

In the laboratory, researchers often have to screen tens of thousands of compounds in order to find a handful that have potential. At ChemCore, Mishra uses computational software that allows him to screen compounds virtually, narrowing the field down to the compounds that have the most potential while saving resources in the real world. The team can also recreate compounds that were expended in experiments, giving researchers a cost-effective alternative to ordering supplies from outside pharmaceutical companies.

**Continued on the next page >>**



The above image is a model created by Rama Mishra, ChemCore's cheminformatics specialist, to illustrate the critical protein-ligand interactions in drug discovery research. The textured grey area indicates the Connolly surface of a protein while the more colorful area represents the lipophilic part of the surface around the ligand binding domain. (The ligand is rendered as a stick model in the center.) Models like these allow researchers to visualize the high affinity ligand without having to produce them in the real world.  
*Image used courtesy of Rama Mishra*

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Scheidt believes that the resources at ChemCore will help open the channel to drug discovery. ChemCore has users from both the Evanston and Chicago campuses with researchers working to find new approaches to treating cancer and Alzheimer's disease as well as those exploring basic sciences and advancing the biology and chemistry fields.

"It's exciting to see that, combined with the High Throughput Analysis Laboratory and the new Tumor Biology Core, we have established a pipeline of small molecule discovery at Northwestern to make compounds that people one day might use in the clinic," Scheidt says. "ChemCore works with researchers to help move the drug discovery process forward."

While the ChemCore facility is on the third floor, the purification arm of the core is housed in the Silverman East basement. For more information about ChemCore and CMIDD, visit <http://www.cmidd.northwestern.edu/chemcore>.



Karl Scheidt, director of ChemCore.  
Photograph by Bruce Powell

## Jonathan Widom, Valued Colleague and Researcher, 1955-2011



Sam Levitan

Prominent biochemist Jonathan Widom, the William Deering Professor of Molecular Biosciences in the Weinberg College of Arts and Sciences, Northwestern, died July 18 of an apparent heart attack. He was 55.

Widom's research on chromosomal structures within DNA — and the location of nucleosomes specifically — has profoundly impacted our understanding of how genes are read and how mutations outside of the regions that encode proteins can lead to errors and disease. His laboratory's work greatly influenced work in this area, and he had numerous collaborators across the globe.

"In the passing of Jon Widom, Northwestern has lost an insightful colleague and ingenious researcher," says

Jay Walsh, vice president for research.

"The field of molecular biology has lost a great mentor and source of inspiration. Jon was a brilliant biochemist whose legacy of innovation includes the incorporation of physical chemistry concepts in our understanding of several fundamental problems in the life sciences."

Widom held appointments in the department of molecular biosciences, the Chemistry of Life Processes Institute and the Robert H. Lurie Comprehensive Cancer Center of Northwestern University. The National Institutes of Health (NIH) has supported his research since 1985.

He was principal investigator of Northwestern's Physical Sciences-Oncology Center, one of 12 established nationwide in 2009 by the National Cancer Institute. The center brings together physical scientists and cancer biologists to use non-traditional, physical-sciences based approaches to understand and control cancer.

Widom chaired the department of biochemistry, molecular biology and cell biology (now the department of molecular biosciences) from 1998 to 2004. As director of Northwestern's Center for Structural Biology from 1994 to 2000, he obtained substantial funding from the W. M. Keck Foundation to purchase state-of-the-art instrumentation for the analysis of the biochemical and biophysical properties of proteins. He established and served as director of the Keck Biophysics Facility, which has been recognized as an Outstanding Core Facility by the Office for Research for the past two years.

"I will miss Jon as a friend and colleague," says Linda Hicke, molecular biosciences and associate vice president for research. "He was wonderfully generous with his time and effort and it will be difficult to recover from the loss of his leadership. It's hard to think of a future without his enthusiasm, humor, and brilliant analysis."

In consultation with the Widom family, the department of molecular biosciences will plan and host a scientific symposium to celebrate Jon's life and accomplishments. Gifts in Widom's memory may be made to Northwestern for an endowed lectureship in his name or to the Lyric Opera of Chicago.

For Northwestern gifts: contact Stephanie A. Banta, senior director of development, Judd A. and Marjorie Weinberg College of Arts and Sciences, Northwestern University, 2020 Ridge Ave., 4th floor, Evanston, IL 60208-4308; [s-banta@northwestern.edu](mailto:s-banta@northwestern.edu); [www.giving.northwestern.edu](http://www.giving.northwestern.edu); (800) 222-5603.

For Lyric Opera gifts: contact Lyric Opera of Chicago, 20 N. Wacker Drive, Suite 860, Chicago, IL 60606; [www.lyricopera.org](http://www.lyricopera.org); (312) 332-2244, ext. 3500.

To read the many expressions of sympathy about Widom's death from federal agencies and universities throughout the world, please follow this link: <http://psoc.northwestern.edu/news/remembering-dr-jonathan-widom-tributes-and-condolences>.

## Is American Cultural Diplomacy Out of Date?

In 1956 America was in the midst of the Cold War. With increasingly chilly relations with the Soviet Union and the rest of the communist world, the U.S. State Department reached into its weapons arsenal and pulled out a trumpet. It would improve the American image around the world with "cultural diplomacy" and send jazz trumpeter Dizzy Gillespie on a worldwide tour to ease political tensions abroad.

Gillespie wasn't the only one. William Faulkner and Robert Frost were sent to Latin America. The New York City Ballet performed in Berlin. For years, Brian Edwards, English and comparative literary studies, found himself wondering if this cultural diplomacy actually worked.

"During the Cold War, the State Department sent out 'cultural products' to give a good impression of the U.S. for political benefits," Edwards says. "I want to challenge the idea that it works in the way we assume it does."

Edwards focuses on the circulation of American culture through North Africa and the Middle East. His research is collected primarily from three sites: Casablanca, Morocco; Cairo, Egypt; and Tehran, Iran. He looks at the circulation of traditional cultural products such as books and films as well as cultural forms that people generally interpret as American such as blogs, social networking, and American studies as a discipline.

"My work looks at different sites during particular moments," Edwards says. "We have a tendency to collapse the Middle East into one area, but it's really quite diverse."

Through his field research in Africa and the Middle East, Edwards found that the international view of American cultural diplomacy has evolved quite a bit since the Cold War. He discovered that when the State Department becomes involved with circulating cultural products, the potential to improve America's image is lost.

"During the Cold War, other places made a distinction between the U.S. government and American culture," he says. "When



Brian Edwards stands atop a rooftop in Tangier, Morocco. Morocco was one of the locations where Edwards focused his field research into the circulation of American culture through North Africa and the Middle East. Photograph used courtesy of Brian Edwards

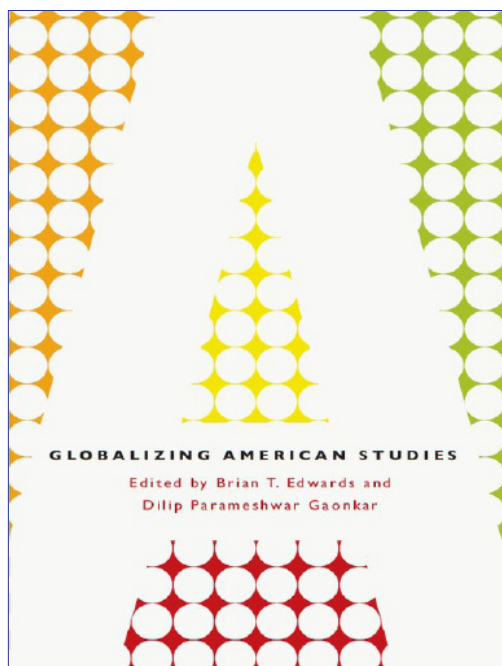
the State Department sent jazz to the Soviet Union, the people didn't confuse the music with the policies or ideologies of the U.S. government. What's surprising to me is that space between those spheres is starting to diminish for many people in the world. It's not as easy for others to distinguish between the American government and American culture. During the Cold War, jazz might have signified an oppositional response to the restrictions of life in America. In the twenty-first century, American hip hop music seems to some young Arabs an art form of resistance, but for others it seems to reflect a decadent culture of consumption."

Edwards also found that American products that are embraced by other cultures are sometimes no longer associated with America. While spending time in Iran, he noticed the popularity of the American animated film *Shrek*. Iranians who cherished the film did not always accept that it was a uniquely American film because the version they loved was dubbed in Farsi with local Iranian accents and humor. Thus, even though *Shrek* came from the U.S., its popularity in Iran reflects less on the U.S. than provides Iranians with an occasion for conversations about local culture.

"As cultural products enter new communities, they accrue different political meanings and become different things altogether," Edwards says. "They do not represent the worlds where they originated."

Edwards calls his work a fusion of social science and literary studies. He spent 2008-09 as an Andrew W. Mellon Foundation New Directions Fellow studying sociocultural anthropology at the University of Chicago in order to develop new methodologies for studying the humanities. His field research included interviewing artists and writers, attending film festivals and artistic events, and following local debates in the cultural realm.

Edwards' research will be reported in his forthcoming book *After the American Century*, due out in 2013. To learn more, visit <http://www.english.northwestern.edu/people/edwards.html>.



Edwards' most recent book project was co-editing and contributing to *Globalizing American Studies*, which was published in November 2010 by the University of Chicago Press. The book is a compilation of essays by established scholars that offer global perspectives on America and American culture. It is co-edited by Dilip Parameshwar Gaonkar, communication studies.

## Mirkin: Nanotechnology Has Power to Transform Lives



Chad A. Mirkin, chemistry, testified before the U.S. Senate Subcommittee on Science and Space on July 14, urging the government to invest in and strengthen the National Nanotechnology Initiative (NNI). Although the U.S. has made multiple breakthroughs in nanotechnology over the past few years, according to Mirkin, many other countries are now building efforts that rival the NNI.

"If the United States does not act now and aggressively pursue the development of

nanoscience and nanotechnology, we will lose our position as the global leader in this transformative field," Mirkin said before members of the committee. "Moreover, we will lose the opportunities it can afford to build our economy and new manufacturing base."

Mirkin proposed that three areas be addressed to expand the NNI: first, strengthen the NNI management structure; second, develop strategies for future investment in both research and education;

and third, deal with environmental, health, and safety issues potentially posed by nanotechnology.

"Why is there so much interest in nanotechnology?" Mirkin asked. "The reason is simple: it has the potential to transform almost every aspect of our lives by providing rapid routes to addressing some of the most pressing problems in health care, electronics, energy, and the environment."

Mirkin's testimony was a part of the hearing, "The National Nanotechnology Investment: Manufacturing, Commercialization, and Job Creation." The witness panel also included Charles H. Romine, National Institute of Standards and Technology; Diandra Leslie-Pelecky, West Virginia University and West Virginia Nano Initiative; Thomas O'Neal, University of Central Florida; and George L. McLendon, Rice University.

[Read Mirkin's full testimony here.](#)

[Watch the Senate hearing here.](#)

*Photograph of the witness panel used courtesy of the U.S. Senate Committee on Commerce, Science, and Transportation.*

## Honors and Awards

**David A. Brown**, physical therapy and human movement sciences, received the **Marian Williams Award for Research in Physical Therapy** from the American Physical Therapy Association.

**Mark Beeman**, psychology, was named a **Kavli Fellow** by the Kavli Foundation.

**John Crispino**, medicine: hematology-oncology, received the **2011 Researcher of the Year Award** from the Pamela B. Katten Memorial Leukemia Research Foundation.

**Alice Eagly**, psychology, received the **Berlin Prize** from the American Academy and the **Raymond A. Katzell Award** in Industrial-Organizational Philosophy.

**Steve Epstein**, sociology, was **elected chair** of the Science, Knowledge, and Technology Section of the American Sociological Association.

**Mary J.C. Hendrix**, medicine, received an **honorary Doctor of Science degree** from Lake Forest College during its commencement in May.

**James Mahoney**, sociology and political science, received the **J. David Greenstone Best Book Award** (Section on Politics and History), **Robert Jervis and Paul Schroeder Best Book Award** (Section on International History and Politics), and **Gregory M. Luebbert Best Book Award** (Section on Comparative Politics) from the American Political Science Association. He also received the **Distinguished Contribution to Scholarship Book Award** (Section on Political Sociology) from the American Sociological Association. All four awards were for Mahoney's book *Colonialism and Postcolonial Development: Spanish America in Comparative Perspective*.

**Adilson Motter**, physics and astronomy, received the 2011 spring round **Chicago Biomedical Consortium Catalyst Award** for the project "An approach to identify drug targets that select against antibiotic resistance."

An article by **Pallavi Patwari**, pediatrics, placed in the **Best of Pediatrics Symposium** at the American Thoracic Society International Conference. The article's title is "Pupillary dysfunction in respiratory and autonomic disorders of infancy, childhood, and adulthood

(RADICA): Indication of sympathetic and parasympathetic dysfunction."

**Elizabeth Shakman Hurd**, political science, received the **Hubert Morken Award** for the Best Publication in Religion and Politics from the American Political Science Association for her book *The Politics of Secularism in International Relations*.

**Stanford Shulman**, pediatrics, was co-recipient of the 2011 American Academy of Pediatrics Section on Infectious Diseases **Award for Lifetime Contribution to Infectious Diseases Education**.

**Randall Snurr**, chemical and biological engineering, received the **2011 Institute Award for Excellence in Industrial Gases Technology** from the American Institute of Chemical Engineers' Board of Directors.

**Fred Turek**, neurobiology and physiology, received the **2011 Distinguished Scientist Award** from the Sleep Research Society.

**Ben Yang**, pediatrics, physiology, and neurology, received **first place for his poster** at the Center for Genetic Medicine's Annual Mouse Genetics Group Meeting.

## Faculty Research Around Campus

A study co-authored by **Emma K. Adam**, **P. Lindsay Chase-Lansdale**, both education and social policy, and **Thomas W. McDade**, anthropology, found that teenagers who have a positive outlook on life report better general health when they are adults. The first author of the paper was **Lindsay Till Hoyt**, doctoral student in human development and social policy. [Read more...](#)

**Joan Chiao** and **Ken Paller**, both psychology, co-authored a paper finding new biological evidence suggesting that the brain works differently when memorizing the face of a person from one's own race than when memorizing the face from another race. Doctoral student **Heather Lucas** was lead author of the paper. [Read more...](#)

**David Dunand**, materials science and engineering, co-authored a paper revealing how prehistoric Native Americans of

Cahokia made copper artifacts. Undergraduate **Matt Chastain** was first author of the paper. **Alix Deymier-Black**, a graduate student in materials science and engineering, was second author. [Read more...](#)

**Alice Eagly**, psychology, was co-author of a study finding that stereotypes about leadership still pose barriers to women's advancement. [Read more...](#)

Research by **Michael Fleming**, family and community medicine, found that college drinkers who reported alcohol-induced memory loss run a higher risk of alcohol-related injuries over the next two years than their peers who drank as much but did not have memory blackouts. [Read more...](#)

**Barton Hirsch**, education and social policy, led a three-year evaluation of After School Matters finding that the after-school program for teens helps

reduce problem behaviors. [Read more...](#)

A study by **Jacob Hirsh** and **Adam Galinsky**, both management and organizations, found that losing one's inhibitions can lead to positive outcomes or social misfires. [Read more...](#)

**Doug Losordo**, medicine, led a study finding that adult stem cells may improve chest pain and exercise tolerance in angina patients. [Read more...](#)

**Lixin Kan**, neurology, led a study finding a brain chemical that causes abnormal bone growth. The discovery offers a molecular target for drugs to prevent and treat the growth. [Read more...](#)

A clinical trial co-led by **Seema Khan**, surgery, tested the benefits of topical anti-estrogen gel in treating early breast cancer. [Read more...](#)

A recent book by **Kate Masur**, history, called *An Example for All the Land: Emancipation and the Struggle Over Equality in Washington, D.C.*, sheds light on post-Civil War Washington, D.C. and the struggle for equality that still shapes America today. [Read more...](#)

Research by **Ketan Patel**, economics, found that a tax on soft drinks will not reduce obesity in America. [Read more...](#)

**Joshua Rauh**, finance, calculated the tax hikes and spending cuts needed to fulfill public state and local pension promises over the next 30 years. [Read more...](#)

**Curtis Weiss**, medicine: pulmonary, led a study finding that physicians who treat critically ill patients need copilots to remind them of important details that reduce deaths. [Read more...](#)

## Porter to Direct Fundraising Effort

The Office for Research welcomes Benjamin Porter as Northwestern's new director of development. Starting in July, he became the principal development officer for the Initiative for Sustainability and Energy (ISEN), the Chemistry of Life Processes (CLP) Institute, and the International Institute of Nanotechnology (IIN).

In this newly created position, Porter jointly reports to Jay Walsh, vice president for research, and an associate vice president in the Office of Alumni Relations and Development. His primary focus is on raising capital gifts for endowment from individual donors.

Porter has been at Northwestern for five years, first as the director of leadership and annual giving and then as the Midwest director in the major gifts office. Before joining Northwestern, he worked as a development officer at Harvard University.

A Princeton graduate,



Ben Porter  
Photograph by Eric Young Smith

Porter grew up in a scientific household. He spent much of his childhood at a research station in the Adirondack Mountains alongside his father William Porter, a wildlife ecologist at Michigan State University.

"I am proud to be making a contribution to scientific discovery by supporting world-class faculty," Porter says.

To contact Porter, email [b-porter@northwestern.edu](mailto:b-porter@northwestern.edu).

## Research Safety News Wins Award

*Research Safety News*, a publication of the Office for Research Safety, was awarded the 2011 Award of Excellence from the Campus Safety, Health, and Environmental Management Association (CSHEMA).

*Research Safety News* is a quarterly newsletter that features announcements, policy statements, and other news and information about research safety at Northwestern.

This is the third time the newsletter has won CSHEMA's top award.

"We are thrilled and honored with the top award," says L. Todd Leasia, executive director of the Office for Research Safety and executive editor of the newsletter. "Our volunteer team of writers and editors tries to keep the quality high and works to make the newsletter informative and



attractive. The award validates the hard work that goes into it."

George Morton is the managing editor of the publication, and Deanna Maurer serves as editor and designer.

To view the newest issue of *Research Safety News*, visit <http://www.research.northwestern.edu/ors/news/archives/2011/RSNv27n3-summer-2011.pdf>.

## Call for Entries: NSF Image Contest

From the diagrams of Leonardo DaVinci to the breathtaking, deep space images of the Hubble telescope, some of science's most powerful statements are not communicated in words. Visualization of research has a long history and holds an important role in the public's level of science literacy.

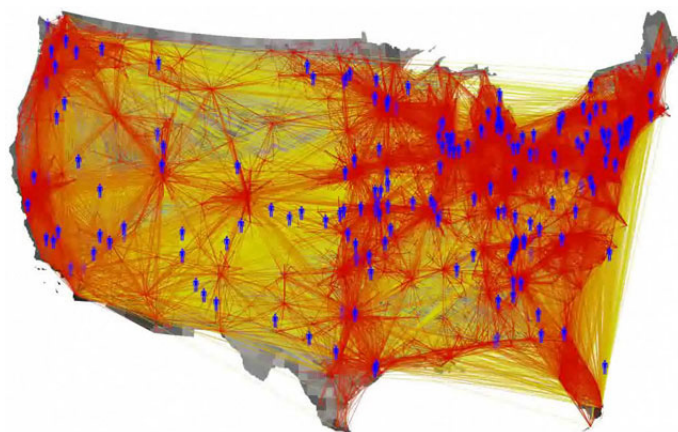
To celebrate these visualizations, the National Science Foundation (NSF) and the journal *Science* created the International Science & Engineering Visualization Challenge. Researchers are invited to submit science-based or science-inspired images.

Winners will be selected in each of these five categories: photography, illustrations, informational posters and graphics, interactive games, and videos.

**The deadline is Friday, September 30.**

Winning entries will appear in a special section of *Science* and *Science Online* as well as on the NSF website. One of the winning entries will be pictured on the front cover, and each winner will receive a one-year print and online subscription to the journal *Science*.

For guidelines and the online submission form, visit [http://www.nsf.gov/news/special\\_reports/scivis/challenge.jsp](http://www.nsf.gov/news/special_reports/scivis/challenge.jsp).



**A "Moving" Winner from 2009:** Northwestern researchers Christian Thiemann and Daniel Grady received first place in the category of noninteractive multimedia in 2009 for their video "Follow the Money: Human Mobility and Effective Communities." The video animates the results of their human mobility project, which uses the website "Where's George?" to study how and where people move within the United States. The above image is a screenshot from their video, which tied for first place with a group from the University of Utah. Thiemann and Grady are graduate researchers in the laboratory of Dirk Brockmann, engineering sciences and applied mathematics.  
Image credit: Christian Thiemann and Daniel Grady

## Northwestern Research in the News, June 15 – August 2

The *Los Angeles Times* included an article about a study by **Murad Alam**, dermatology, finding that heart transplant patients have a higher risk of skin cancer.

*The Atlantic* and *PsychCentral* covered research by **Emma K. Adam**, **Lindsay Chase-Lansdale**, both education and social policy, and **Thomas McDade**, anthropology, into the health benefits of being a positive teenager.

**Al Benson**, hematology oncology, discussed diet and cancer prevention in *Reuters*.

**Ed Colgate**, mechanical engineering, discussed haptic technology with the *NewScientist*.

**Victoria DeFrancesco Soto**, political science, discussed Obama's health care law on *MSNBC*.

**Daniel Diermeier**, managerial economics and decision sciences, commented on security practices for Twitter in *Reuters*.

**Adam Galinsky**, management and organizations, discussed debt-ceiling negotiations with NPR's "All Things Considered."

**Robert J. Gordon**, economics, talked about the push to cut labor costs in *The Wall Street Journal*.

**Shane Greenstein**, management and strategy, talked about QR codes with *USA Today*.

*CBS News* and *Popular Science* covered a study by **Bartosz Grzybowski**, chemical and biological engineering, into static electricity.

*Discover* covered research by **Lixin Kan**, neurology, about abnormal bone growth in muscle.

A study by **Douglas Losordo**, medicine, using stem cells to treat

chest pain was covered by the *BBC*, *CBC*, *Los Angeles Times*, *CBS News*, *MIT Technology Review*, and *Chicago Tribune*.

**Hani Mahmassani**, civil and environmental engineering, commented on the "unstable regime" of traffic flow in the *Washington Post*.

**Joseph Mathewson**, journalism, commented on News Corp.'s phone hacking scandal in the *Washington Post*.

**Matthew McCrory**, academic technologies, and **Thomas J. Meade**, chemistry, were in a *New York Times* article about CAMI's 3-D screen.

**Chad A. Mirkin**, chemistry, commented on the uses of nanotechnology for disease detection in *U.S. News & World Report*.

**Robert Murphy**, medicine: infectious diseases, discussed promising treatments for HIV/AIDS in *The Economist*.

**Mary Pattillo**, sociology, wrote an op-ed for *The New York Times* about economic prospects for African Americans.

*Forbes* mentioned QuesTek, a tech start-up company founded by **Greg Olson**, materials science and engineering.

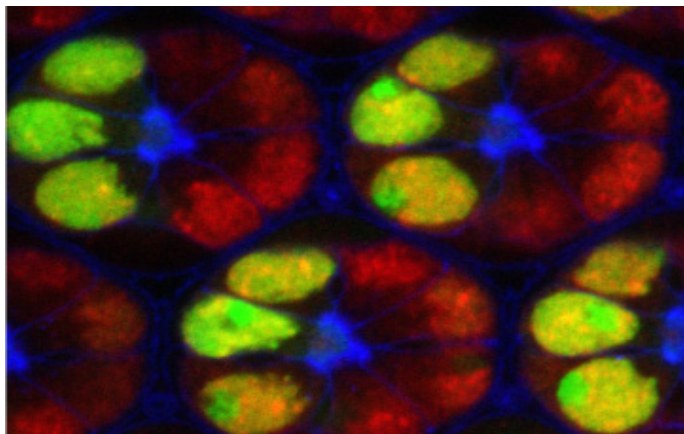
*The New York Times* cited a study by **Leigh Thompson**, management and organizations, about the anticipation leading up to vacation.

**Fred Turek**, neurobiology and physiology, discussed aging and circadian rhythm with *The Scientist*.

**Victor Shih**, political science, commented on China's economy in *Time* and *The New York Times*.

**Michael Wolf**, general medicine, discussed labels on prescription medications with *Time*.

## Five Core Facilities Receive Awards



An image of a fruitfly retina captured at BIF, which was named a 2011 Outstanding Core Facility. Image from the lab of Richard Carthew

The Office for Research selected five core facilities for the 2011 Outstanding Core Facility Award. The award honors facilities for exemplary service and support of research at the University. The recipients are the Biological Imaging Facility (BIF), Cell Imaging Facility (CIF), Integrated Molecular Structure Education and Research Center (IMSERC), Keck Biophysics Facility (Keck Bio), and the Northwestern University Atomic and Nanoscale Characterization Experimental Center (NUANCE).

This is the second year of the Award created in part to recognize the important contributions that all core facilities provide to the research community. The awardees set an especially high standard of service and support as determined by their exceptional resource management, grantsmanship, participation in educational and outreach activities, communication of services within and outside of the University, and results of a University-wide customer satisfaction survey.

Each facility will receive a \$2,000 award for use related to the operation of the facility (including travel to a conference or workshop, hosting of a workshop, seminar program, etc). In addition, the directors, managers and staff will be honored guests at an awards luncheon sponsored by the Office for Research. The website of each facility will also be recognized on the OR core facilities website by a special icon that indicates the award.

BIF, directed by Catherine Woolley, offers cutting-edge electron, photonic, and computational imaging technologies and resources for approximately 150 biomedical researchers on the Evanston campus. [Learn more about BIF here.](#)

CIF, directed by Teng-Leong Chew, is one of the largest facilities at the University, serving the cellular imaging needs of approximately 300 biomedical researchers on the Chicago campus. [Learn more about CIF here.](#)

IMSERC, directed by Andy Ott, provides instrumentation, technical expertise and education in the synthesis of small molecules. All research at Northwestern utilizing novel compounds relies on IMSERC to characterize these molecules before application testing can begin. [Read more about IMSERC here.](#)

Formerly directed by the late Jonathan Widom, Keck Bio is a center for biophysical and biostructural research that serves approximately 200 researchers on both campuses. [Read more about Keck Bio here.](#)

Serving roughly 600 researchers on the Evanston campus, NUANCE, directed by Vinayak Dravid, provides a host of technologies and services in the engineering and physical sciences as well as facilitating collaborations with the Art Institute, Botanical Gardens, and Museum of Science and Industry. [Learn more about NUANCE here.](#)

## Divulge Your Sources

In the spring OR Newsletter readership survey, we received a wealth of answers to the question: "Where else do you go to find research news?" The responses generally fell into one of three categories:

- National and international news sources such as *The New York Times*, BBC News, *Scientific American*, the *Economist*, *Nature*, and the *Smithsonian*.
- Government agencies such as Clinicaltrials.gov, NIH's PubMed, NSF's Science 360, and AHRQ newsletter.
- Others sought information from other universities and organizations such as *Science* from the AAAS, Futurity.com from the AAU, and *MIT Tech Review*.

Several people suggested a website that is new (to us)—and a prolific source of science information—[ScienceDaily.com](#), which pulls information from many of the above sources, especially research universities including Northwestern. A great feature of *ScienceDaily* is that it not only cites the source of the article but also lists the proper citations in both APA and MLA styles.

We're interested in hearing about new websites, in addition to the ones listed above. Share your sources with us — reliable sources of research news, enlightenment, or maybe just amusement for a slow day. Contact Amanda Morris at [amandamo@northwestern.edu](mailto:amandamo@northwestern.edu) and we'll publish some of the more interesting suggestions in future newsletters.

## OR's Mandell Wins Art Prize



"Winter of Love" ©Kathy Mandell, 2009

The title might be "Winter of Love," but Kathy Mandell's art piece has endured of a summer of praise.

The piece, which combines alkyd paints, sumi ink, and gouache, won first place for best use of space in the NU Galleria's 2011 "One by One" summer exhibit. Mandell is a senior editor in the Office for Research as well as the award-winning designer and creative director of OR's *CenterPiece* magazine.

"Winter of Love" (shown above) was influenced by Edna St. Vincent Millay's poem "Never May the Fruit Be Plucked." A calligraphic artist and president of the Chicago Calligraphy Collective, Mandell inscribed words from the poem into the piece without allowing the viewer to be able to read the complete poem. Instead, she wanted to bring the feeling of the words into the colors and design of the work.

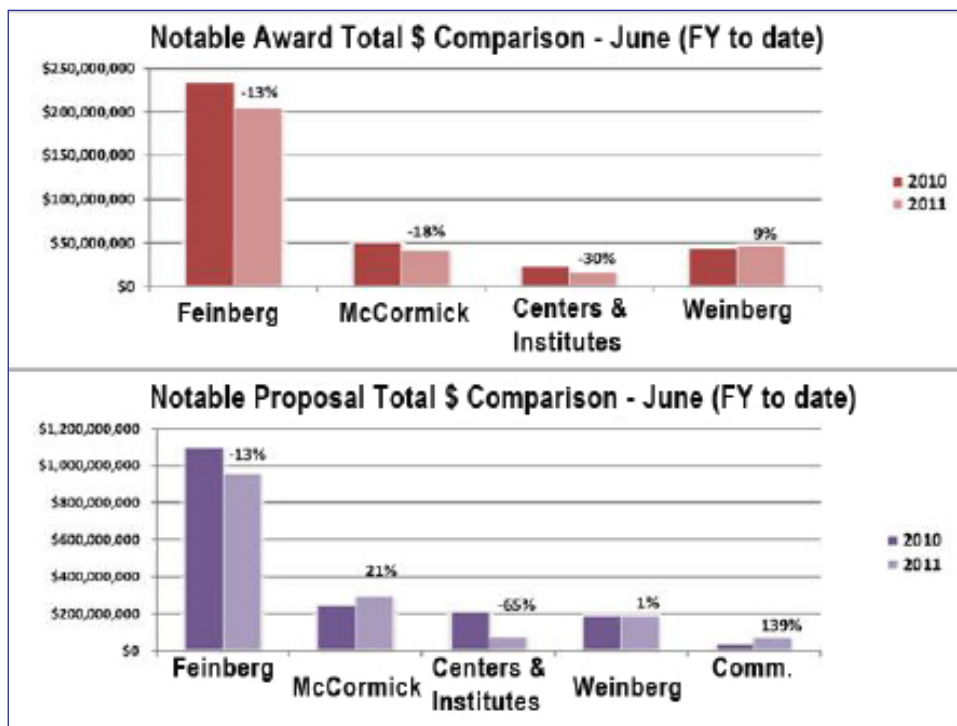
NU Galleria displays original work in a new exhibition space on the ground floor of the Norris University Center. The competition showcased photography, sketches, prints, paintings, and mixed media work. Eric Dynowski, an undergraduate in philosophy, received the judges' choice prize for his untitled series of three, black-and-white photographs. The exhibition will be on display until August 11.

## Proposal and Award Reports through June 2011

The total amount of award funding received through June 2011 is \$334.5 million, a decrease of 10 percent (\$38.9 million) over June 2010. This June 2011 figure includes 79 awards totaling \$26.4 million in funding from the American Recovery and Reinvestment Act (ARRA) compared to 184 awards for \$42.8 million received through June 2010. The number of award transactions has increased by 1 percent.

The dollar volume of proposals submitted in June 2011 is \$1.6 billion, a decrease of 10 percent (\$192.0 mil) over the total reported in June 2010. In June 2011, the dollar volume of proposals submitted to foundations more than doubled with an increase of 109 percent (\$39.8 million), while submissions to voluntary health organizations rose by 23 percent (\$10.5 million). Proposals to federal agencies and state of Illinois agencies decreased by 14 percent (\$233.3 million) and 41 percent (\$3.7 million) respectively.

To access the reports online, visit [www.research.northwestern.edu/osr/reports.html](http://www.research.northwestern.edu/osr/reports.html). You will first be brought to the university's single sign on access page, where you will then need to provide your NetID and password. From the report launching page, find the appropriate report type and select the desired month.



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## BioEXCEL Boosts Young Biologists



Photograph used courtesy of NUI-ART NUAMPS

A group of incoming Northwestern freshmen got an early taste of the college life through the new BioEXCEL program sponsored by Northwestern University Ventures in Biology Education (nuViBE).

The rigorous five-week program ended on July 29, acting as a refresher in biology, chemistry, and calculus. The program also develops students' leadership skills and prepares them for the academic and social challenges of college life.

BioEXCEL is open to all incoming freshmen but appeals specifically to members of the Class of 2015 who are studying biological sciences or are planning to attend medical school.

[Watch the video about BioEXCEL on Northwestern NewsCenter.](#)