New Biomedical Informatics Center Director Aims for Expansion

The Feinberg research community welcomed a valuable member in the new year: Justin Starren, MD, PhD, associate professor in the Department of Preventive Medicine, who serves as director of the Northwestern University Biomedical Informatics Center (NUBIC).

Launched nearly four years ago, NUBIC is currently housed in the Northwestern University Clinical and Translational Sciences (NUCATS) Institute. Starren oversees the growth and development of the 40 individuals who fall under the software and enterprise data warehouse teams. He took over the role previously held by Rex Chisholm, PhD, dean for scientific affairs and graduate studies, and has a vision for expanding the Center’s reach.

“At NUBIC, we are poised to be a national leader in informatics; we have all of the basic strengths that the leading institutions possess and more,” says Starren. “I hope I can be the crystal in a super saturated solution, putting NUBIC in a position to enhance our capabilities and presence.”

Starren joins Feinberg from the Marshfield Clinic, one of the country’s largest private, multispecialty group practices. The clinic serves patients throughout northern, central, and western Wisconsin. Before his time at Marshfield, Starren was at Columbia University — the same institution where he earned his PhD in medical informatics. Also serving as chief of the Division of Bioinformatics,
Starren plans to mature the division and create a full-fledged department over the next three to five years pending milestones such as grants and new faculty. He also seeks to launch a doctoral program in informatics — the first in the Chicago area — by fall of 2012.

Still a fairly new field of practice, the precise meaning and function of medical informatics remains undefined. However, it is often described as the collection, organization, and study of information related to healthcare and biomedical research.

"Originally, the sub-domains of bioinformatics described areas based on their physical scale: molecular, organ, whole individual, or population," Starren says. "At NUBIC, our teams are dedicated to creating web applications and software tools expressly for clinical and translational research, which bridges molecular discoveries and population level health."

Starren reinforces that translational informatics is the "new kid on the block" — a powerful tool that significantly shortens the time between discovery and therapy. He says that the four driving trends in the field include team science, the high-technology healthcare bill, post-genomic medicine, and socio-technical views.

A Look at the Trends

Researchers have already seen examples of these trends in action, Starren says.

With the sharing of information among multiple researchers and institutions, team science lives on an informatics backbone. Starren lists the Human Genome Project and DBGap Genome Database as examples of team science in action.

President Barack Obama's American Recovery and Reinvestment Act includes provisions related to health information technology. With the adoption of electronic health record (EHR) systems, institutions are collecting much more patient information than ever before — maintaining records in a timely and cost-efficient manner.

"It's the role of informatics to manage and analyze all of this data over time," Starren says. "In the future, physicians will act like air traffic controllers, monitoring real time patient data and administering care to those patients who are on a downward trajectory."

Knowing the sequence of base pairs in a particular gene is necessary but insufficient to fully appreciate the genesis of many diseases. Post-genomic medicine combines genetics with environmental and behavioral factors to determine the impact of a patient's health.

"Researchers previously thought that we could ignore certain genes, but we now know that we need the big picture, which informatics can help attain," Starren says.

While EHR systems are advancing the field of informatics, experts also recognize that technology doesn't solve the problems that plague patients. There is also a concern about the unintended consequences of this and other technology.

"The flaw of the electronic health record is that it's hard to understand a whole patient from nuggets of information," Starren says. "We have a task force looking into ways to improve the system to improve understanding and reduce clinician error."

Starren insists that NUBIC has the skill set to move forward with these trends and to help clinical and translational researchers in any field achieve progress. He encourages researchers to reach out to the center and leverage its computational infrastructure and its database and software development expertise.

"Medical informatics is an intrinsically collaborative discipline," Starren says. "I am focused on coordinating informatics activities across our campuses and among other institutions in Chicago; I want to leverage the strengths of these groups and make Chicago a hotbed for informatics internationally."

For more information about his research, contact Justin Starren: justin.starren@northwestern.edu or (312) 908-1723.
Faculty Profile: Paul Bryce, PhD
Assistant Professor of Allergy-Immunology and Microbiology-Immunology

Paul Bryce, PhD, assistant professor of allergy-immunology and microbiology-immunology, grew up in the small town of Gourock, Scotland, where his family ran a local grocery store. He studied at the University of Strathclyde in Glasgow, where he earned an undergraduate honors degree in immunology and pharmacology. During his undergraduate summers, Bryce worked with Sir James Black, who won a Nobel Prize in 1988 for his pharmacology research and drug discovery. After spending a short time at a pharmaceutical company, Bryce obtained a PhD from the University of Manchester under the mentorship of Ian Hutchinson, PhD, DSc. He moved to the United States in 1999 to pursue postdoctoral work at Boston Children’s Hospital and became an instructor there in 2004. He came to Feinberg one year later.

What brought you to Feinberg?
I knew I wanted to start my own research laboratory and pursue my research interests further, but I chose Feinberg over other offers for several reasons. One strong reason was seeing Bob Schleimer, a PhD qualified researcher, at the helm of the allergy-immunology division. This convinced me that Northwestern University was a progressive institution that recognized the important role research can play in medicine.

Another reason was the chance to attract high caliber PhD students through the Integrated Graduate Program and clinical fellows through our allergy-immunology fellowship program. I have been lucky to gather an outstanding team of young investigators from both tracks into my laboratory. I think it has created a dynamic environment where mechanism and medicine go hand in hand.

What are your research interests?
My laboratory focuses on understanding why allergic responses occur and how our immune system is controlled during allergy. We have a focus specifically on food allergy, using both clinical studies and animal models, but we also explore airway and skin.

The food allergy work is driven by the simple, yet serious, concern from the medical standpoint: there are no good therapeutics available for affected individuals. The drugs used for asthma don’t seem to be particularly beneficial for food allergy. Most individuals rely on careful avoidance as their best option, which has obvious difficulties and impacts their quality of life tremendously.

We are just beginning to understand the mechanisms behind the differences between asthma and food allergy, and much of this stems from new animal models of food allergy, such as the one developed by Kirthana Ganeshan, a graduate student in my laboratory.

Anaphylaxis, the most serious reaction seen in food allergic individuals, accounts for more than 100,000 emergency room visits in the USA alone, and more than 150 deaths per year. The incidence and severity is also increasing. Our research allows us to explore ideas about why this might be occurring and helps us define ways we can develop new treatments.

What types of collaborations are you engaged in across campus?
We have a wonderful collaboration with Nimi Gonsalves, MD, and her colleagues in the Division of Gastroenterology to study a relatively new allergic disease known as eosinophilic esophagitis. Nimi has been studying clinical interventions of these patients, including modulating the diet in those with food-induced responses. We have been able to integrate with her studies and explore some of the mechanisms behind this disease. On the more basic side of our work, Chia-Lin Hsu, a PhD student in my lab, has been working with Stephen Miller, PhD, and his group in the Department of Microbiology-

Continued on page 4
Immunology to study a method of fooling the immune system that Steve and his team have shown to work on autoimmunity for its ability to restore tolerance to peanut. From Chia-Lin’s animal studies, we may have found a method to safely perform immunotherapy in peanut-allergic individuals, who, using current approaches available to clinicians, have a very high rate of adverse reactions to the treatment.

What papers have you published and where?

2010 turned out to be a rather surprising year for the lab, particularly on the paper front. A lot of the mechanistic questions we have in the lab are only now reaching their conclusions due to lots of hard work from my students and postdoc. The results should be published in 2011. However, while we have been getting these studies polished up, we have actually published a number of papers that are based on clinical studies, including one currently in press at the Journal of Allergy and Clinical Immunology. This was the work of Karen Hsu-Blatman, a clinical fellow in our program who has just moved to a faculty position at the Brigham and Women’s Hospital in Boston, and was part of our collaboration with Nimi Gonsalves and the Division of Gastroenterology. Another study was done by Toral Kamdar, who worked with us during her residency, but has now joined the allergy-immunology fellowship training program.

Who inspires you?

My inspiration continues to lie with Sir James Black, who passed away last year. He was an incredible man to have met at the formative stage of my science career. On several occasions, he would call me into his office to “simply chat.” Looking back, it was during those now surreal meetings that I learned the importance of hard work, creative thought, and a love for discovery. I continue to be mentored almost daily by Bob Schleimer, albeit sometimes about my team picks in our fantasy football league! Having grown up in a different culture – even one that speaks English – has brought a number of unique problems relating to personal and professional interactions. Bob has been an amazing mentor in helping me grow and develop on these fronts, in addition to his scientific input and feedback.
New Research Administration Services Team Serves as Central Resource for Faculty and Staff

Managing grants, working with human resources and compliance offices, conducting budget reviews, and supporting investigators are all in a day's work for research administrators at the Feinberg School of Medicine. But what happens when the administrators need support?

Enter the newly formed Research Administration Services team, an arm of the Feinberg Research Office. The team collaborates with departments, centers, cores, and institutes at Feinberg to provide comprehensive services at essential intervals in the research lifecycle. Focused on small and underserved areas of Feinberg which need additional research assistance, the team is “building capacity and creating the environment you would have in a large department while providing ongoing support and resources to staff who are working extremely hard and under high expectations. In most cases, they’re doing the work of multiple people,” says research administrator Michelle Melin-Rogovin, formerly a center administrative director in NUCATS.

Services provided by the office include:

- Establish internal controls and compliance mechanisms that cannot occur in small departments (not enough staff) or are not performed regularly in larger departments due to overburdened staff.
- Provide checklists, tools, and templates to staff and investigators to streamline work processes and ensure that the systems established take hold in the department and lead to operational changes, not quick fixes.
- Provide connection to Feinberg systems and resources to facilitate collaborative research at all levels (access not otherwise available at the department level).

A full list of services can be found on the Research Office’s web site. The team employs a consultative approach to helping departments. “We’re very customer-focused,” says Melin-Rogovin. “Our culture as a team is responsive and results-oriented. Those are qualities we want to see come across in what we do. We want to leave a lasting footprint, to know that we’ve made a difference.”

The team currently works with the Departments of Dermatology, Physiology, and Emergency Medicine, as well as Cores. Sandra Kozlowski, dermatology department administrator, says, “We engaged the support of Research Administration after meeting with Eric Boberg because we have a vacancy in a key role in the department. It was an excellent fit; the team has proven to be extremely valuable in keeping research operations moving forward. Because they are University employees, they came to us with all appropriate knowledge, contacts, and access and experience with Northwestern systems. Typically when there is a vacant position there is subsequent chaos. For the first time this is not the case. They have been proactive in their approach, first meeting with the leadership team and then key individuals in the department. After performing a needs assessment they developed a plan for the department and have updated it as needed. They are helpful in educating team members about correct policies and research administration, and they have been thorough in the work they do.”

“We work in partnership with investigators and administrators to facilitate the stewardship of sponsored funding,” says research administrator Catie Hor, whose background in finance and four years of experience working in the Feinberg Research Office benefits the team. “Our office strives to provide effective and efficient services to the departments we support.”

Adds Melin-Rogovin, “Research administration is complex. To the extent we can allow investigators and staff to focus on research to accomplish more and make the process easier, then we’ll have made a real impact.”

To schedule a consultation with the Research Administration Services team, contact Eric Boberg, executive director for research, at e-boberg@northwestern.edu.

Michelle Melin-Ragovin (left) and Catie Hor are members of the new Research Administration Services Team.
Cara Yajnik Gottardi, PhD
Assistant Professor in Medicine - Pulmonology

**Project title:** “Role of Wnt/beta-Catenin Signaling in Alveolar Repair and Fibrosis”

**Sponsor:** National Heart, Lung, and Blood Institute

Pulmonary fibrosis encompasses a broad class of diseases which affect five million people world-wide and approximately 200,000 people in the United States. From the onset of symptoms, median survival is only 28 months. No effective therapies exist for pulmonary fibrosis, and recent clinical trials have produced disappointing results. Thus, new molecular insights into the mechanisms of pulmonary fibrosis are needed to generate novel therapeutic treatments.

Wnt/β-catenin signaling is a major pathway required for cell differentiation decisions that maintain adult tissue homeostasis, and has recently been implicated in fibrosis. Since tissue fibrosis is thought to require both epithelial destruction and fibroblast activation, we hypothesize that Wnt/β-catenin signaling drives the fibrogenic phenotype by targeting proliferation, survival, and differentiation in both lung epithelial cells and fibroblasts.

We plan to establish a causal role for Wnt/β-catenin signaling in the bleomycin model for lung fibrosis using mouse models that manifest attenuated (LRP5−/−) or enhanced (AXIN2−/−) β-catenin signaling. During the injury phase of the bleomycin model, we will determine whether activation of Wnt/β-catenin signaling is required for the survival of alveolar type 2 (AT2) epithelial cells and their ability to repair after lung injury. During the fibrogenic phase of the bleomycin model, we will determine whether the activation of Wnt/β-catenin signaling observed in fibroblasts promotes their proliferation and migratory activities.

We also hypothesize that limited Wnt/β-catenin signaling activation promotes alveolar epithelial cell survival and differentiation, revealing an important protective role during the early stages of alveolar repair after injury. Sustained activation of Wnt/β-catenin signaling in fibroblasts, however, ultimately drives the fibrogenic phenotype by promoting their proliferation and migration.

We aim to demonstrate the first causal link between Wnt/β-catenin signaling and pulmonary fibrosis. By parsing the effects of Wnt/β-catenin signaling in both alveolar epithelial and fibroblast components, we will provide much needed insight into the instigating causes of fibrotic lung diseases.

Welcome New Faculty

James Elliott, PT, PhD, joins as assistant professor in physical therapy and human movement sciences.

Elliott previously completed a post-doctoral research fellowship at the University of Queensland in Brisbane, Australia. He earned his PhD at Regis University in Denver, Colo., where he served as an assistant professor in physical therapy. In addition, he worked as a physical therapist in Colorado for more than 10 years, including three years with the Colorado Rockies. Prior to pursuing his interests in research and physical therapy, he was a professional baseball player for the San Diego Padres.

Elliott’s research interests include pathophysiological mechanisms underlying transition to chronic pain and disability following whiplash injury and neuromusculoskeletal trauma, quantitative magnetic resonance imaging assessment of spinal cord biochemistry and muscle water diffusion, and exploring and developing interventions for promoting recovery following whiplash injury.

Maxwell Vergo, MD, joins as assistant professor in medicine-hospital medicine and in hematology and oncology.

Vergo recently served as chief fellow in Northwestern’s Division of Hematology and Oncology. Prior to that appointment, he completed a fellowship in palliative medicine and internship and residency in internal medicine at Massachusetts General Hospital.

He received his MD in 2004 from Tufts University School of Medicine in Boston.

His research interests in gastrointestinal malignancies include therapeutic drug studies, symptom management, patient understanding of their illness, and improving psychosocial support and decision making for patients.
Sponsored Research

Richard Gershon, PhD
Research Associate Professor in Medical Social Sciences

Project title: “Toolbox for Assessment of Neurological and Behavioral Function”

Sponsor: National Institute on Drug Abuse (via NorthShore University HealthSystem Research Institute)

The National Institutes of Health Toolbox for the Assessment of Neurological and Behavioral Function (NIH Toolbox), part of the NIH Blueprint for Neuroscience Research Initiative, is developing brief yet comprehensive assessment tools measuring motor, cognitive, sensory, and emotional function.

The underlying proposition is that a focus on optimal functioning and health might lead to the identification of a different set of risk factors and thus different prevention strategies versus the traditional focus on single disease outcomes. This applies to studies whose primary focus is neurological and behavioral function and to those sponsored by scientists working outside this arena (e.g., in cardiovascular research) who wish to assess these domains in addition to their primary outcome measures.

Few relevant assessment tools exist that reliably reflect every day function, and that monitor health rather than identify illness and disability. Current instruments for assessing cohort, longitudinal, and epidemiological neural function are not uniform, making comparison of data across studies difficult. This limits the ability to conduct combined analyses which may, in turn, reduce the amount of information available to design strategies that maintain health and prevent disease.

The NIH Toolbox, envisioned as a standard set of measures of function, is intended to address these needs. Additionally, to counteract current drawbacks of assessing nervous system functioning, the NIH Toolbox assessment is designed to be brief, relatively low in cost, exhibit strong reliability over time and incorporate state-of-the-art psychometric properties and advances in technology (e.g., computerized administration and adaptive testing when applicable).

Instruments have been created in both English and Spanish versions and are appropriate for use with subjects from ages 3 to 85 years. In late 2011, we will commence a stratified random sampling of the U.S. general population to obtain normative information (including an assessment of 1 week and 6-month retest reliability). Follow-up analyses will provide single year age-based norms for ages 3 to 17 years, and multi-year age bands through age 85. In addition, we are working with a growing number of researchers outside of our development group who wish to assess the validity of the Toolbox measures in targeted disease groups.

Error Correction Window Eliminated

As of January 25, the error correction window has been eliminated for NIH, AHRQ, and NIOSH proposals. A proposal that is free of both Grants.gov and NIH validation errors must be received in Grants.gov by 5 p.m. on the day of the deadline.

NIH validation occurs after the proposal is accepted by Grants.gov; therefore, proposals found to have errors must be corrected, resubmitted, and revalidated by 5 p.m.

Any application submitted after 5 p.m. on the due date will be subject to the NIH late policy and may not be accepted for review. The following are examples of submissions considered late under the new policy:

- An original submission after 5 p.m.
- An original submission at 4:59 p.m. that isn’t validated by Grants.gov until 5:01 p.m.
- A proposal that was originally submitted on time but had errors, and the resubmission and revalidation of the corrected proposal occurs after 5 p.m.
- An error-free proposal that was originally submitted on time but which was withdrawn by the PI to correct the science section, and the corrected proposal was submitted and validated after 5 p.m.

Analysis of the OSR-Chicago submission times for a recent NIH deadline showed that most proposals (64 percent) were submitted after noon on the day of the deadline, a significant number of proposals (17 percent) were returned from NIH with errors, and for proposals that had errors, the time for the entire process took up to 2.75 hours.

To ensure that a proposal is successfully submitted, PIs and department administrators must submit their final proposals to OSR two days prior to the deadline. This is necessary to provide the time OSR needs to review the file, submit it to the queue for submission to Grants.gov, and correct it for resubmission if there are errors in the original submission. PIs and department administrators should also provide their contact information and remain available by email or phone so there is no delay in correcting proposals if they do not pass the validation process.
Staff Q&A: Nicole Shiperek, MSEd
Manager, Program Development, NUCATS

Where are you originally from?
I’m originally from Northwest Indiana, more specifically Highland, Ind. For the record, I didn’t ride a tractor to school as a kid.

What is your educational background?
I earned a bachelor’s degree in business administration from Lewis University. I also received a certificate in international studies from the Northwestern University School of Continuing Studies and a master’s degree in higher educational administration and policy from the Northwestern University School of Education and Social Policy.

What is your role at the medical school?
I am a program development manager for Clinical Research Professionals Training (CRPT) Programs in the Center for Education and Career Development (CECD) at the NUCATS Institute. I work on or manage multiple projects simultaneously, including the Clinical Research Compliance Training Library, CRC Basic Training, Introduction to Online Learning, Essentials of Initiating Clinical Research, and Engineering into Medicine.

I am also co-chair of the Association for Higher Education Administrators’ Development at Northwestern University (AHEAD@NU).

Tell us about a current project you’re working on.
The Clinical Research Compliance Training Library is a new project that I’m currently working on; it was launched in October 2010. These five online courses were created for role-based training and education for allied health, ancillary, patient care, financial, and clinical research staff. It’s exciting to take on the challenge of getting the word out about these worthwhile courses.

In addition, I will be serving as the distance education coordinator on the Medical Education Partnership Initiative in Nigeria (MEPIN) grant. Dr. Paula Carney and I are fortunate enough to be working with staff members from the Center for Global Health to develop training for physicians and healthcare staff in Nigeria. The initiative will form a network including about 30 regional partners, country health and education ministries, and more than 20 U.S. collaborators. I look forward to learning a lot from this amazing experience.

What do you like to do in your spare time?
My favorite thing to do in my free time is to spend time with family and close friends. I also like to exercise, read educational books, and keep up with my favorite TV show, Dexter.

When I am able to, I am very passionate about traveling to new places within the United States and around the world. I am lucky to have traveled quite a bit so far, and I hope to be able to continue my traveling adventures throughout my life.

Read more about Nicole on the Research Office’s web site.

NIH News

Controversy continues over a proposal to establish an NIH National Center for Advancing Translational Sciences (NCATS) and abolish the National Center for Research Resources (NCRR). NIH has responded to a recent New York Times story on the effort, insisting that “NCATS is not intended to be a drug company” and that “There are no plans to ‘cannibalize’ the budgets or programs of other NIH Institutes and Centers to form NCATS.”

Health and Human Services (HHS) Secretary Sebelius officially notified Congress of the reorganization plan on January 14th. The National Journal reported that Sen. Richard Burr told reporters after a hearing on Thursday, “to say that they’re going to start getting into drug development, regardless of what category, is a huge departure that needs debate.” A staff member for Denny Rehberg, chair of the House Appropriations Subcommittee that funds NIH, asked NIH to respond to 25 pointed questions on the plan, including, “what criteria or evaluation was used to determine the need to abolish NCRR, and how do the other NIH ICs rank when applied to this criteria.”

The proposal also was heatedly discussed this week at both the NCRR and NIGMS advisory committee meetings. Comments on the proposals are being solicited on the NIH feedback web site.
Research in the News

Chicago Magazine January 2011
Breakthroughs in Women's Health
Drs. Teresa Woodruff, Vera Rigolin, William Grobman, Patricia Garcia, Virginia Kaklamani, Beatrice Edwards, Jackie Gollan and Rosalind Ramsey-Goldman were featured.

National Geographic January 18
The Big Idea: Brain Trauma
Dr. Hunt Batjer was quoted.

WTTW-TV (Chicago) January 18
“Chicago Tonight”
Dr. Jelena Radulovic was featured regarding her work on PTSD.

WMAQ-TV (Chicago) January 16
Dr. Donald Lloyd-Jones was interviewed about cardiovascular disease.

WBBM-TV (Chicago) January 16
Dr. Michael Fleming’s research was referenced.

US News January 13
Businessweek
Health.com
MSN.com
Yahoo! News
Simple Screen May Help Spot Depression in College Students
Dr. Michael Fleming was quoted regarding his depression research.

ABC News (National) January 13
Did ‘Power of Touch’ Help Giffords From Brink?
Dr. Theresa Pape’s research was referenced.

WBBM-TV (Chicago) January 13
Dr. Hunt Batjer was interviewed regarding concussions.

Los Angeles Times January 10
Chicago Tribune
Abbott’s Dissolvable Heart Stent Gets OK for Use in Europe
Dr. Charles Davidson was quoted.

High-Impact Factor Research November and December 2010


Core Fact

If flow cytometers were cars, the Robert H. Lurie Comprehensive Cancer Center’s flow cytometry core’s new addition would be a Bugatti Veyron.

The BD LSRSFortessa offers six lasers of excitation, 20 parameter collection capabilities, enhanced small particle detection, and a 96 well high throughput sampler. It’s a one of a kind and ready for you to test drive today.

For training or questions please contact James Marvin.
Funding Opportunities

Shared Instrumentation Grant Program (S10)
More information
Submission Deadline: March 23, 2011
Upper Amount: $600,000
Synopsis: The purpose of this funding opportunity is to continue the competitive National Center for Research Resources (NCRR) Shared Instrumentation Grant (SIG) Program. The objective of the program is to make available to institutions expensive research instruments that can only be justified on a shared-use basis and for which meritorious NIH research projects in basic, translational, or clinical areas are described. The SIG program provides funds to purchase or upgrade to a single item of expensive, specialized, commercially available instrumentation or an integrated instrument system. An integrated instrument system is one in which the components, when used in conjunction with one another, perform a function that no single component could provide. The components must be dedicated to the system and not used independently. Increase in productivity or efficiency is not sufficient justification for an integrated system. Instruments must be for research purposes only. Foreign made equipment is allowable. Types of instruments supported include confocal and electron microscopes, biomedical imagers, mass spectrometers, DNA sequencers, biosensors, cell-sorters, X-ray diffraction systems, and NMR spectrometers, among others.

Translational Scholar Career Awards in Pharmacogenomics and Personalized Medicine (K23) - PA-11-009
More information
Submission Deadline: March 12, 2011
Upper Amount: $1,000,000
Synopsis: The purpose of this Mentored Patient-Oriented Research Career Development Award (K23) is to provide salary and protected time to support the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research. Each Research Career Development Award must be tailored to meet the individual needs of the candidate. The Translational Scholar Awards in Pharmacogenomics and Personalized Medicine program is intended to address the scarcity of investigators cross-trained in both clinical research core competencies and modern methods required to address pharmacogenomics research problems in patient populations. Dual mentors from the Clinical and Translational Science Awards consortium and the Pharmacogenomics Research Network are required.

View more funding opportunities

Featured Events

f15 Nanotechnology: The Ethics of this Actual World
Presented by Laurie Zoloth, PhD, professor of Medical Humanities & Bioethics and Religion, director, Center for Bioethics, Science, and Society
Date: Thursday, February 15 Noon to 1 p.m.
Location: Lurie Medical Research Center Searle Seminar Room 303 E. Superior St. (Chicago campus)
Contact: bryan-morrison@northwestern.edu
More information

f22 Macrophage and Neutrophil Dysfunction in Tularemia
Presented by Lee-Ann Allen, PhD, University of Iowa
Date: Tuesday, February 22 Noon to 1 p.m.
Location: Lurie Medical Research Center Baldwin Auditorium 303 E. Superior St. (Chicago campus)
Contact: h-seifert@northwestern.edu
More information

f24 Alzheimer’s Disease Seminar
“Does Shape Matter?: Imagining the Hippocampus in Dementia,” presented by Lei Wang, Northwestern University
Date: Thursday, February 24 Noon to 1 p.m.
Location: Lurie Medical Research Center Gray Seminar Room 303 E. Superior St. (Chicago campus)
Contact: k-zachrich@northwestern.edu
More information

f25 Towards a Neurobiology of Recollection
Presented by Howard Eichenbaum, PhD, professor of Psychology and director, Center for Memory and Brain, Boston University
Date: Friday, February 25 1:30 to 2:30 p.m.
Location: Lurie Medical Research Center Hughes Auditorium 303 E. Superior St. (Chicago campus)
Contact: s-stade@northwestern.edu
More information

m3 Fructose: A Sweet Problem? (Endocrinology Seminars)
Presented by Anthony Heaney, MD, associate professor, Division of Endocrinology, Diabetes and Hypertension, University of California-Los Angeles
Date: Tuesday, March 3 4 to 5 p.m.
Location: Lurie Medical Research Center Baldwin Auditorium 303 E. Superior St. (Chicago campus)
Contact: p-yim@northwestern.edu
More information

More events
Event organizers are encouraged to submit calendar items on Plan-It Purple for consideration. Please contact the Research Office with further questions.