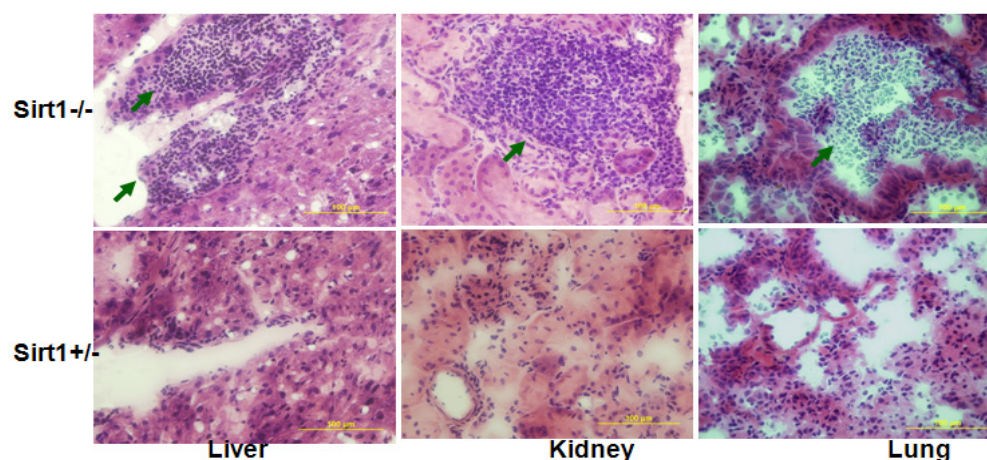




FSM Researcher

Feinberg School of Medicine Research Office

April 2012



The image from Deyu Fang, PhD's lab shows that genetic deletion of Sirt1 gene leads to systemic inflammation in an animal model.

Building Connections to Fight Inflammation

Spring allergy sufferers and heart attack survivors may not appear to have much in common. But their cells tell a different story.

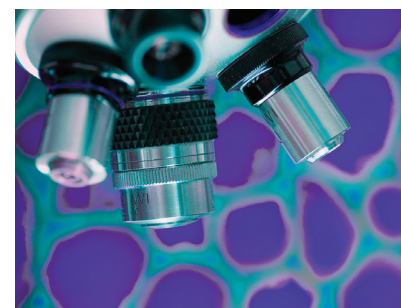
Bill Muller, MD, PhD, Northwestern University Feinberg School of Medicine chair of the **Department of Pathology** and Magerstadt Professor of Pathology, says diseases ranging from bronchitis to plaque in the arteries are inherently linked. "Virtually every disease — even cancer — has inflammation as a common thread. They are either caused by inflammation, or inflammation is the process inducing the damage," he says.

Inflammation is the body's response to tissue damage of any kind, whether it is a bacterial infection, a cut, or a chronic disease. While an inflammatory response repairs damage, it often causes more harm than good. As life expectancy has increased in the U.S., scientists have learned more about chronic inflammation and its long-term effects on the body.

When Muller was recruited in 2007, there was no central area for inflammation research. He organized an inflammation research-in-progress weekly seminar series designed to bring together a university-wide multi-disciplinary group focused on inflammation and immunity.

Muller's lab studies the molecular and cellular basis of how white blood cells, or leukocytes, cross blood vessels to enter tissues, a critical point for the regulation of the inflammatory response. The team has shown that interactions between CD31 and CD99, two adhesion molecules expressed on endothelial

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n-mladic@northwestern.edu

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cells and leukocytes, are required for leukocytes to cross blood vessels.

Current studies focus on understanding the mechanisms by which these molecules function in order to develop specific anti-inflammatory therapies.

A round-up of inflammation research happening at Northwestern follows.

Repairing the heart

Ed Thorp, PhD, assistant professor in pathology and an associate of the Feinberg Cardiovascular Research Institute, is interested in how risk factors for heart disease contribute to inflammation in the vascular wall. He studies events after an atherosclerotic plaque ruptures and induces a heart at-

infarction. In the heart, targeting the immune response is a realistic approach with the potential to improve healing."

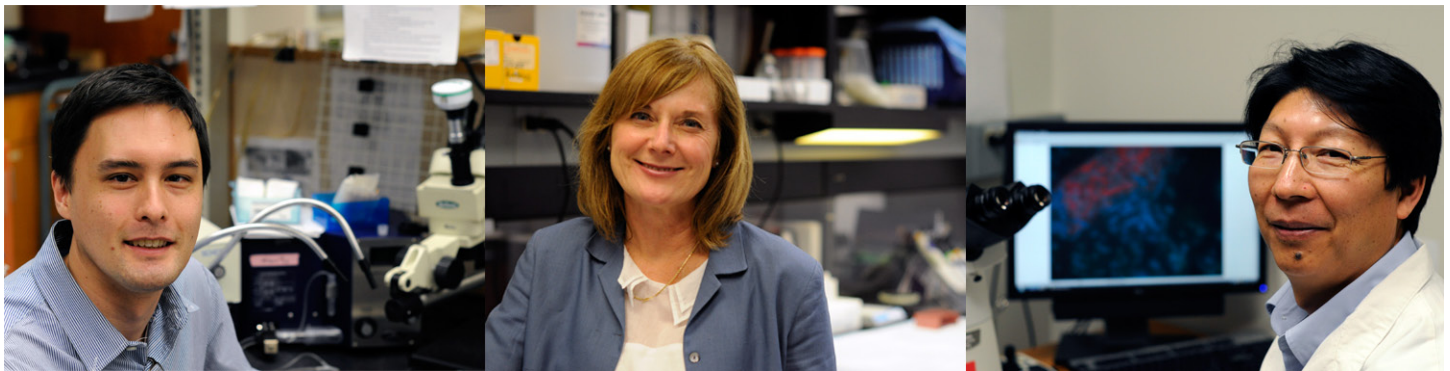
The team also studies survival of the muscle cells of the heart, or cardiomyocytes, after a heart attack. Cardiomyocyte viability is critical due to the limited regenerative capacity of coronary tissue.

"Our overall goal is to take the information we gain from our studies to design new therapies that promote tissue repair through tailoring of the inflammatory and muscle response to ischemia," says Thorp.

Connecting arthritis and type 1 diabetes

Deyu Fang, PhD, associate professor in pathology, studies arthritis and type 1 diabetes, both autoimmune inflammatory diseases.

"Autoimmunity is caused by self-attacking immune cells,



Inflammation investigators, from L: Ed Thorp, PhD, Melissa Brown, PhD, and Deyu Fang, PhD

tack, or myocardial infarction.

Despite a recent decline in the incidence of cardiovascular disease (CVD) due to preventive treatment, Thorp notes that in a large cohort of elderly patients who survived a heart attack and were without a history of previous heart failure, more than 70 percent progressed to heart failure within five years.

"If you consider this rise along with the escalating elderly population, who are at higher risk for CVD, it becomes evident that strategies will be needed to complement existing therapeutics," he says.

To address this need, Thorp's team is experimenting with immune cells, normally absent from the heart but present after a heart attack. These cells are critical to clear away dying tissue and initiate a repair response to maintain cardiac function.

"Our approach explores how immune cells function," he says. "They promote resolution of inflammation in the heart and direct tissue repair at the molecular level, notably in the environment of low oxygen, or ischemia, as occurs after an

but the reasons why these immune cells attack are largely not known," Fang says. "We look at what happens inside the immune cells, specifically T lymphocytes, and what causes these cells to attack our own tissues and organs."

Through studies of gene expression of self-attacking immune cells, Fang identified the gene SIRT1 as important in maintaining or silencing self-attacking T lymphocytes.

"If SIRT1 functions properly in the immune cells, then these cells don't attack the body's own tissue, but if the function of the gene changes, then it can cause autoimmune inflammatory disease," says Fang.

His lab proved that SIRT1 is involved in rheumatoid arthritis and type 1 diabetes. When the gene expression was inhibited in mice, the mice developed a lupus-like systemic inflammation, with autoimmune cell infiltration in the lungs, spleen, liver, kidney, and joints.

"SIRT1 is very important to control immune response and indicates that the gene is a therapeutic target," he says. "Therefore,

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Research Day: New Location and Judging Categories, Record Participation, Exciting Keynote

With nearly 30 percent more abstracts submitted via the web site vs. 2011, the Eighth Annual Lewis Landsberg [Research Day](#) is shaping up to be another record year for participation.

The event has moved into the largest flexible space on the Chicago campus, Northwestern Memorial Hospital's third floor conference center, to accommodate the largest poster presentation ever on campus.



Robert Goldman, PhD

Research Day organizers have made several changes along with the location this year in response to feedback from previous events, including the creation of a new judging category for Public Health and Social Sciences.

"Following last year's event, we surveyed participants to learn what contributed to a good experience, and what was lacking from the event," said Eric Boberg, PhD, executive director for research.

"We heard loud and clear that presenters wanted to be in the same building, that we needed to be clearer about how our judges operate, and that our judging categories were not flexible enough for our community. We've done our best to address those needs this year."

This year's event kicks off at 1:00 p.m. at NMH, and starts with a keynote presentation by Robert Goldman, PhD, the Stephen Walter Ranson Professor and chairman of the Department of Cell and Molecular Biology.

The speech, titled "[Unexpected Links Between Rare Diseases and Basic Science: A Story of Two Kids and Their Moms](#)," will take place in the Pritzker Auditorium on the hospital's third floor. Seating in the auditorium is limited; those interested in attending are advised to arrive early.

Following the keynote, posters will be displayed in conference rooms, atriums, lobbies, and hallways of the conference center. More than 25 of Northwestern University's

research Cores are slated to participate as well.

During the poster presentation, presenters are encouraged to visit with their peers, exchange ideas, network, and view posters. Those participants selected as finalists will be interviewed by Research Day judges during the session. Finalists' posters will be marked this year, another change from previous years.

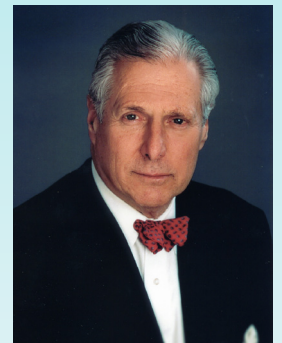
At 3:30 p.m., awards for the poster session will be announced. Additionally, the [ARCC](#) Community-Engaged Research Partnership Award will be announced for the first time at Research Day.

"Research Day is an exciting event during which the campus comes together to celebrate innovation, collaboration, and discovery," said Rex Chisholm, PhD, vice dean for scientific affairs and graduate education. "I'm looking forward to engaging in conversation about the next generation of discoveries and exploring the diverse array of posters that will be presented."

Landsberg Receives Tripartite

Lewis Landsberg, MD, professor of medicine-endocrinology and former dean of the medical school from 1999 to 2007, has been named the winner of the 2012 Tripartite Legacy Faculty Prize in Translational Science and Education.

The prize is presented annually to the faculty member who has demonstrated excellence in research that emphasizes translational approaches, teaching, mentoring, and leadership. Landsberg is also currently director of the Northwestern University Comprehensive Center on Obesity.



Lewis Landsberg, MD

Robert Rosa, MD, dean for regulatory affairs and chief compliance officer at Feinberg, nominated Landsberg for the recognition, stating that Landsberg's work "changed the field of metabolism and nutrition." He commended Landsberg's dedication to education as well, noting "because of his widely recognized gifts as a teacher and his general wisdom, he has served as a role model for innumerable students, residents, and fellows and as a mentor for junior and senior faculty."

The Tripartite Ceremony, which in previous years has been held in conjunction with Research Day, will instead take place at a later date in 2012, yet to be determined, to accommodate Landsberg's travel schedule.



Inflammation, continued from pg. 2

a small molecule that can enhance SIRT1 functions can be used to treat inflammatory diseases.”

One SIRT1 activator, known as Resveratrol and found in red wine, can “extend the life span of worms, yeast, and mice, and now people believe it can extend the life of humans,” Fang says. While most of the research on Resveratrol revolves around metabolism, obesity, and type 2 diabetes, Fang found it is also important in type 1 diabetes therapy.

Mast Cells in Multiple Sclerosis

Mast cells, immune cells that reside in tissues and produce multiple inflammatory mediators, have been studied primarily in the context of allergic disease. [Melissa Brown, PhD](#), professor in microbiology-immunology, takes a different approach by focusing on how mast cells affect disease pathology in a model of multiple sclerosis (MS).

MS, an autoimmune disease that is caused by immune cells gaining abnormal access to the central nervous system (CNS), attacks the myelin sheath, a covering that protects nerves and is necessary for normal nerve function. This

damage can result in cognitive deficits as well as visual, sensory, and motor disturbances.

“We discovered that mast cells are important in breaking down the blood-brain barrier, a set of specialized blood vessels that normally restrict the entry of most large molecules and cells into the CNS, allowing access of damaging inflammatory cells,” says Brown. “This includes T cells that specifically target the myelin proteins for destruction.”

Using mouse models, Brown’s lab demonstrated that the removal of mast cells from the protective tissues surrounding the brain and spinal cord result in a much milder form of MS. If mast cells are put back into mice, disease susceptibility is restored.

“We think that this information will eventually allow us to use drugs that block activation of mast cells that reside near the blood-brain barrier, ultimately preventing its opening and limiting access of all inflammatory cells into the CNS,” says Brown. “When used with T cell directed therapies that interfere with T cell function, we hope we can intervene in a more efficient way to treat ongoing disease.”

Harvard’s Donahoe Delivers Distinguished Women in Medicine and Science Lecture

Internationally known for her research on the mechanisms of birth defects, Patricia Donahoe, MD, professor of surgery at Harvard Medical School and director of the pediatric surgical research laboratories at Massachusetts General Hospital, presented the 16th annual Distinguished Women in Medicine and Science Lecture at Northwestern University Feinberg School of Medicine on Thursday, March 22.

The afternoon lecture, “Reproductive Development Instructs Treatment Strategies for Reproductive Cancers,” was part of a visit to campus that included a lunchtime talk and opportunity for Donahoe to mentor some of the junior faculty members at the medical school. The event is hosted annually by the Northwestern Medical Women Faculty Organization ([WFO](#)).

“Mentoring is an incredibly important part of my life,” said Donahoe, who has trained more than 100 fellows, many of whom have gone on to significant academic careers. “To me, it’s one of the most exciting things I do. To have watched people like Neena Schwartz, PhD, and Teresa Woodruff, PhD, mentor young researchers throughout their careers has been great.”

William Lowe, MD, vice dean of academic affairs, welcomed Donahoe on behalf of Feinberg before discussing the opportunities that lie ahead for female faculty members on campus. In the past decade, Lowe said, the medical school has been successful in increasing the percent of female faculty by more than 10 percent, while continuing to provide opportunities for career advancement.

A [video](#) of Donahoe’s lecture is available on the Feinberg web site.

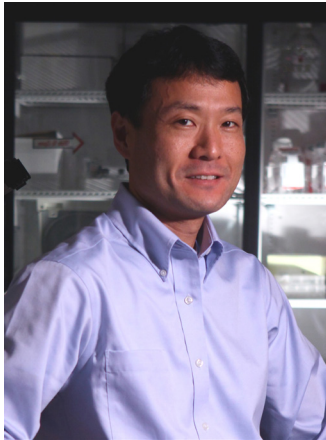


Patricia Donahoe, MD, presented the Distinguished Women in Medicine and Science Lecture at Feinberg.



Faculty Profile: Tsutomu Kume, PhD

Associate Professor of Medicine-Cardiology and Molecular Pharmacology and Biological Chemistry



Tsutomu Kume, PhD

Cardiovascular development is at the center of all the work that goes on in Tsutomu Kume, PhD's lab.

The cardiovascular system is the first functional unit to form during embryonic development and is essential for the growth and nurturing of other developing organs. Failure to form the cardiovascular system often leads to embryonic lethality, and inherited disorders of the cardiovascular system are quite common in humans. The causes and underlying developmental mechanisms of these disorders, however, are poorly understood.

Kume works to better understand this development process using mice as animal models, as well as embryonic stem (ES) cells as an in vitro differentiation system.

Kume received a bachelor's and master's degree in science, and doctorate degree in molecular biology from the University of Tokyo, Japan. He completed his postdoctoral training in developmental biology at the Howard Hughes Medical Institute (HHMI) at Vanderbilt University Medical Center in 2000. After serving on the faculty of Vanderbilt University, Kume joined Northwestern University Feinberg School of Medicine in 2009.

What are your research interests?

Q&A

As a postdoc more than a decade ago, I discovered that the Foxc1 and Foxc2 transcription factors are important for cardiovascular development. Specifically, my research group is seeking to explain the molecular basis for the role of Foxc1 and Foxc2 in the specification and differentiation of cardiovascular progenitors. In addition, my research has increasingly focused on understanding angiogenesis, the formation of new blood vessels from preexisting vessels, which is essential not only for embryonic development, but also for maintenance of adult tissues. This process is tightly regulated by the balance of pro- and anti-angiogenic factors, and many of these molecules are involved in both embryonic and pathological angiogenesis.

What is the ultimate goal of your research?

As a trained basic scientist, I am always aware of the impact

of basic science research on clinical practice and how it can lead to new therapeutic applications for the treatment of disease.

In that sense, I am delighted to be at Feinberg. I hope that my work in understanding the mechanisms of embryonic development will ultimately address a fundamental question, since many important molecules involved in embryonic development are postnatally "reused" in health and disease: How do tissues such as blood vessels normally form and go awry in the development of many diseases?

The ultimate goal of my research is to provide new insights into the mechanisms that lead to the development of therapeutic strategies designed to treat clinically relevant conditions of pathological neovascularization under ischemia, a restriction in blood supply, which includes myocardial infarction, known as a heart attack.

How does your research advance medical science and knowledge?

In collaboration with Dr. Ordan Lehmann, MD, PhD, associate professor, Departments of Ophthalmology and Medical Genetics, University of Alberta in Canada, our research team has recently identified Foxc1 as a master regulator in inhibiting the formation of blood vessels, and thereby maintaining clarity of the cornea of the eye in humans and mice.

Our new finding, published in the *Proceedings of the National Academy of Sciences USA* (PNAS), is clinically important because Foxc1 could possibly be used as gene therapy to treat diseases that cause blindness. One possible use might be in corneal transplants, where the growth of new blood vessels onto the transplanted cornea is a major problem. Our new approach may also be applicable to the treatment of other vascular-related disorders such as cancer. I gave a talk about this project at the Gordon Research Conference in March.

What types of collaborations are you engaged in?

During the past two-and-a-half years since my lab relocated to Northwestern, through collaborations, we have expanded our work into clinically related research.

In particular, the [Feinberg Cardiovascular Research Institute](#) has been performing cutting edge research, and it was especially appealing for me to join such an extraordinary group. We have also been collaborating with [Samuel Stupp, PhD](#), director at [Institute for BioNano-technology in Medicine](#),

Continued on pg. 6



Kume, continued from pg. 5

Thomas Meade, PhD, professor of radiology, and **Harris Perlman, PhD**, associate professor of medicine-rheumatology, for our newly funded NIH-sponsored program project grant aimed at advancing the therapeutic use of endothelial progenitor cells for the treatment of cardiovascular diseases.

As another ongoing collaboration, Lehmann and I are planning to submit a new grant to test if exogenous Foxc1 inhibits the formation of blood vessels in the injured cornea in mice by using different approaches of gene delivery.

I am also part of the organizing committee composed of researchers from Northwestern and the University of Chicago for the 2012 Weinstein Cardiovascular Development Conference, which will be held in Chicago in May.

How did you become interested in this area of research?

In the end, it was all about connecting the dots. My research interests have evolved over the years. As a graduate student working on a project of leukemia cells in Japan, I became interested in developmental biology by reading the literature. It was at the time when knockout mouse technology using ES cells was newly developed, and developmental biologists were the pioneers to employ this top-notch technique.

In 1996 I joined the laboratory of Brigid Hogan, PhD, an HHMI investigator at Vanderbilt University at that time and now chair of the Department of Cell Biology at Duke University. After publishing a couple of papers from her lab, I borrowed a protocol from another lab and did whole mount

CD31 immunostaining of early wild-type embryos to see blood vessels.

It worked very well, and I was very fascinated with the well-coordinated formation of blood vessels in the developing embryo. I found it beautiful and wanted to know how blood vessels can develop the entire vasculature, so that's why I decided to move to cardiovascular research. It was not easy at the beginning because no one was working on this area of research in the Hogan lab, but it has turned out to be one of the best decisions of my life.

The start of the recent cornea project was also intuitive. From my postdoctoral work and that of others in 1999, it had been known that Foxc1 is critical for the development of the eye, and that mutations of human Foxc1 cause congenital glaucoma. But when my lab newly generated conditional Foxc1 knockout mice for other reasons a couple of years ago, I thought I might have missed something important in the eye. We revisited it and surprisingly found abnormal growth of blood vessels in the mutant corneas. Vascular development became my favorite and strongest area of research.

Who inspires you?

I have benefited from good mentors, including my doctorate and postdoctoral mentors, Michio Oishi, PhD, and Brigid Hogan, PhD, respectively, who have guided and nourished me to become a better scientist. They taught me how to tackle key biological questions, design research projects, and run my own lab. I have invited Brigid to host her Lectures in Life Sciences seminar here at Northwestern in May. I'm very excited about it.

Sponsored Research



Robert Galiano, PhD
Assistant Professor of Plastic Surgery

Project title: "BIOMASK: The Use of an In-Vivo Bioreactor as a Biologic Platform for the Guided Self-Contained Fabrication of a Composite Facial Regenerate"

Sponsor: U.S. Army Medical Research and Materiel Command

Severe facial injuries and burns in the injured warrior present a complex problem that has eluded a satisfactory surgical solution. These battlefield injuries are associated with the loss of key anatomic structures which are either impossible to satisfactorily reconstruct with current surgical strategies, or are plagued by

unrestrained fibrosis and scar contractures.

Facial transplantation is a recent development that may be useful in certain cases, but it is also fraught with lifelong concerns of immunosuppression and technical limitations that serve to emphasize the lack of adequate surgical options available to these patients.

With all these limitations and needs in mind, we established a long-term intensely collaborative venture between multiple participating institutions, such as the U.S. Army, the Institute of Surgical and Regenerative Medicine, the Automation and Robotics Research Institute, and Northwestern University that will culminate in the development of a "Biomask," a bioreactor-mimetic that will regenerate the complex topographic features of the facial form and will revolutionize the care of the soldier with severe facial burns.



Staff Q&A: Michelle Melin-Rogovin

Manager of Research Administration



Michelle Melin-Rogovin

Where are you originally from?

Arizona, and I went to college in Miami, Fla. before coming to Chicago in 1990 for graduate school. I call Chicago my home.

What is your educational background?

I have a bachelor's degree in political science from Barry University and a master's degree in public policy studies from the University of Chicago, where I also received a certificate in

health administration. I also have a certificate in non-profit administration from Case Western Reserve University.

Tell us about your professional background.

I have 20 years of experience working in health and medicine. I started my career in working in patient education and social service administration roles, working directly with children and adults facing chronic and life threatening illnesses like autoimmune diseases and cancer. I loved helping patients and families, but it became emotionally exhausting.

I transitioned to research administration in health and medicine through leadership roles in academic medicine at the University of Chicago and Northwestern. My most significant career achievements have been to serve Y-ME National Breast Cancer Organization as director of patient services for five years, and more recently, I was the executive director of the University of Chicago Celiac Disease Center, an organization founded by the division chief of pediatric gastroenterology at the University of Chicago Comer Children's Hospital to serve children and families from across the U.S.

When I came to Northwestern, I joined NUCATS as the administrative director for the Community Engaged Research Center, where I worked for three years before joining the Feinberg Research Office to launch Research Administration Services (RAS).

What is your role at the medical school?

I am very fortunate to work with a fantastic team of people

at Feinberg. As a manager of research administration, I work with my colleagues to steward the financial and human resources dedicated to research within the school, to ensure that investigators have time to focus on the pursuit of science, the care of patients, and the education of the next generation of clinician investigators.

Our team works in departments to assist staff to develop a research infrastructure, successfully submit applications, manage research grants, and establish a track record of research accomplishments at Feinberg. We work very closely with staff and central offices to achieve strategic research administration objectives that benefit departments where we work, and to conduct workshops and trainings for departments to address specific needs.

In FY11, RAS assisted departments in saving a combined total of more than \$500,000. We've continued that trend this year, and increased research administration capacity and compliance in a number of departments across the medical school.

How do you contribute to the research mission at Feinberg?

My personal mission is to create additional bandwidth for our investigators to focus on research; as a team, we focus on that in RAS. The investigators I work with often wonder why I do what I do, asking, "How can you work on accounts and budgets and forms, it's so complicated and confusing?" I love it. When I'm working I think about the physician in clinic working on his study or an investigator in her lab working on her science, instead of spending time wrestling with accounts and forms and budgets.

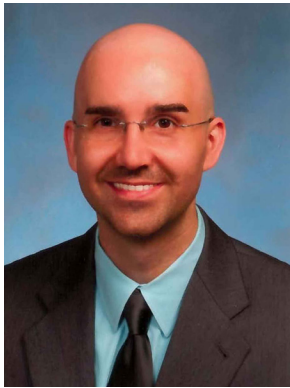
I also love helping our investigators use every research dollar they've earned on their award. When an investigator receives an award, I want to work with my colleagues to ensure that every penny is used carefully and wisely, and reported correctly. These processes can be difficult; we have to work together to ensure this happens. It's a satisfying feeling, especially now when research dollars are tight, because it serves our investigators well, in addition to Feinberg.

I enjoy working closely with department staff to help make their jobs easier and more enjoyable. It's a great feeling to partner with so many talented and dedicated staff members across the medical school who want to learn more to help their departments grow and be more successful.

➤ Connect with Melin-Rogovin on [LinkedIn](#) and follow her blog, [Research Administration Nation](#).



Student Profile: Cory Simpson, MSTP Student



Where is your hometown?

I'm from Granite City, Ill., a small steel town near St. Louis.

What is your educational background?

I completed my bachelor's degree at Washington University in St. Louis; I majored in biology and minored in Spanish. I enrolled in the MSTP (MD/PhD) program at

Feinberg, and in 2010 completed my doctorate degree in cell biology in the laboratory of [Kathleen Green, PhD](#), in the Department of Pathology. I will graduate with my Doctor of Medicine degree in May 2012.

On what does your research focus?

Broadly, my thesis examined the function of desmosomes in the epidermis. Desmosomes are organelles that mediate intercellular adhesion by physically coupling the cytoskeletons of neighboring cells at specialized regions of attachment between the cells. These adhesive structures are required for maintaining the integrity of tissues that endure mechanical stress, such as the skin. However, more recent evidence has indicated that these adhesive organelles do more than just hold cells together; they also serve to regulate critical signaling pathways driving cellular differentiation and tissue morphogenesis.

My particular project examined the function of the desmosomal cadherin (Dsg1) in regulating the differentiation of human keratinocytes within a three-dimensional model

of the epidermis. Beyond its normal role in adhesion, my experiments defined a novel role for Dsg1 in suppressing growth factor signaling to allow epidermal differentiation to occur.

What attracted you to the MSTP?

I wanted to be a physician from a young age, but my career goals evolved when I was introduced to basic science research as an undergraduate. My research mentor suggested I investigate MD/PhD programs, which would prepare me to be both a clinician and a scientist.

For me, Feinberg's MSTP was a very attractive program for many reasons: supportive academic advising at each stage of training, plenty of exciting labs to work in with cutting-edge technology, a modernized medicine curriculum that focused on individual and small-group learning, and most importantly, a very friendly program with a tight-knit group of dual-degree students in each class.

What has been your best experience at Feinberg?

One of my most memorable experiences as a student was traveling to Guatemala as part of a short-term medical aid trip. We had an incredible group of students, who worked as a team to provide medical care to residents of rural Guatemala. The trip allowed me to utilize the clinical skills I learned as a medical student, but also gave me a chance to put my medical Spanish to good use. It was an amazing opportunity to gain a more global perspective on medicine, and I hope to have more experiences like it in the future.

What do you do in your free time?

When I have free time, I love

Continued on pg. 9

DGP News

The Walter S. and Lucienne Driskill Graduate Training Program in Life Sciences ([DGP](#)) and the Master of Science Program in Clinical Investigation ([MSCI](#)) announce a newly created dual PhD/MSCI degree program recently approved by the Graduate School.

The dual PhD/MS program builds on the growth in clinical and translational research interests fostered, in part, by [NUCATS](#) and investments made in expanding translational approaches to research. The program will train students in both their chosen scientific discipline and in clinical and translational research applications.

Providing an MS in translational research early in the student's professional career will help these individuals

apply for and receive competitive clinical and translational research grants.

Graduates of this program will be uniquely positioned to work in multidisciplinary teams either in academic, corporate or government positions, and accelerate the translation of research discoveries to improve human health.

The DGP will roll out the new program to the incoming 2012 class either over the summer or during the two-week orientation in September. Students will be given the opportunity to enroll in MSCI classes, and if interested and performing well after two or three quarters, will be allowed to formally transfer into the dual degree.



Simpson, continued from pg. 8

to travel. During my time at Feinberg, I've traveled to Nicaragua and Guatemala on medical aid trips and attended research conferences in Kyoto, Japan and Bern, Switzerland. Some other favorite destinations have been Lisbon, Portugal and Barcelona, Spain.

I also really enjoy running. I completed four half-marathons while in graduate school. Though running has been on the back-burner during my clinical rotations, I hope to get back on track this spring. My fiancée and I also bought bikes last year and have been enjoying cycling along the lakefront.

What are your plans for after graduation?

I graduate from the MSTP in May and will begin residency training. I matched on March 16th; I will complete my medical internship at the University of Chicago's NorthShore Hospital in Evanston followed by dermatology training at the University of Pennsylvania. I'm planning to complete Penn's combined residency and research training program, which will prepare me to practice clinical dermatology but will also allow me time to work in a lab with the goal of developing my own research career. Before starting my intern year, though, I'm taking a trip to Italy, getting married on May 27th, and then relaxing in Hawaii for a couple weeks. I'm really looking forward to an exciting few months after my nine years at Feinberg!

NIH News

The new NIH National Center for Advancing Translational Sciences (NCATS) has started an [e-newsletter](#) to provide regular updates to keep NCATS' stakeholders informed about their work and to highlight collaboration opportunities.

NIH recently posted a new [tutorial](#) online focused on implementing the new conflicts-of-interest regulations. It followed up the tutorial with a new [FAQ](#) about conflict-of-interest shortly after.

A [blog](#) sponsored by the National Institute of General Medical Sciences recently addressed the question, "Why isn't the overall impact score the average of the criterion scores?"

NIH [notified](#) the community that it will implement the OMB Research Performance Progress Report (RPPR) through a new eRA Commons module in the fall of 2012.

Several new human embryonic stem cell (hESC) lines have been added to the NIH Human Embryonic Stem Cell Registry and are now available for use in Federally-funded research. The total number of lines on the registry is now 152.

Calls for Proposals

KL2 Open Call for Proposals - Multidisciplinary Clinical and Translational Scientists (MCTS) Scholar Grant Competition (KL2)

The NUCATS Institute is pleased to announce the fifth call for applications for the MCTS Scholars Program (KL2). KL2 applications are due August 15, 2012 and funding will tentatively begin July 2013. The program is funded through the CTSA by a KL2 award and provides salary support and additional resources to ensure protected time for mentored research and didactic training in clinical research across a wide variety of project topics and academic areas. KL2 awards will be granted initially for one year with a second year available, dependent upon progress during the first year. Applications are requested for a two-year training period. Junior faculty members participating in clinical or translational research are encouraged to review the [online information](#) regarding eligibility, criteria, and timeline.

NUCATS will host "[How to write a K award](#)," presented by Richard Pope, MD, and William Schnaper, MD, on May 8, 2012, from 3:30 to 5:00 p.m. Those interested must RSVP to attend.

TL1 Open Call for Proposals - Multidisciplinary Clinical and Translational Research Pre-Doctoral Training Program (TL1)

Graduate students interested in applying for the MCTS Pre-doctoral Trainee program (TL1): Applications are due May 1, 2012, and funding will begin June 2012. The program is funded through the CTSA by a TL1 award, and trainees are appointed for one year and receive a stipend for research support and travel. Those interested in learning more can review the information [online](#) regarding eligibility, criteria, and timeline.



Research in the News

NBC Today Show March 30

Pink Slime

Bethany Doerfler was interviewed.

Chicago Tribune March 28

How can we let medical research funds wither?

Eric G. Neilson contributed an editorial about NIH funding.

ABC News March 28

Alcohol may reduce death in men who survived heart attack

Robert Bonow was quoted.

Chicago Tribune March 28

Associated Press March 20

MSNBC.com March 20

Washington Post March 19

Transplant technique opens door to patients forgoing anti-rejection drugs

Joseph Leventhal's research was featured.

FOX News March 27

Babies still put at risk of sudden death, study finds

Debra Weese-Mayer was quoted.

Reuters March 26

Many young cancer patients don't discuss fertility

Susan Klock was quoted.

NBC Today Show March 23

MSNBC.com March 23

Docs treating rising number of women with adult acne

Bethanee Schlosser was interviewed.

Washington Post March 23

CBS News March 20

US News & World Report March 16

Few meet all seven heart-health recommendations

Donald Lloyd-Jones was quoted.

Wall Street Journal March 19

The new retirement resorts

Lee Lindquist was interviewed.

[More headlines](#)

Welcome New Faculty



Joel L. Voss, PhD, joins as assistant professor of medical and social sciences.

Voss received his doctorate degree in neuroscience through the Northwestern University Interdepartmental Neuroscience Program in 2007, after completing his bachelor's degree in psychology and biology at Eckerd College in St. Petersburg, Fla. He then completed a post-doctoral Beckman Fellowship at the University of Illinois Urbana-Champaign in 2011.

Voss' research interests are human neuroscience (MRI, EEG, eye tracking) of cognition impairments in neurological and neuropsychiatric disorder. He has served as principal or co-

investigator on four NIH grants, and has been lead or co-author on more than 30 published peer-reviewed articles.

High Impact Factor Research February 2012

Aida T, Meijer EW, **Stupp SI**. Functional supramolecular polymers. *Science*. 2012 Feb 17;335(6070):813-7.

McNally BA, Somasundaram A, Yamashita M, Prakriya M. Gated regulation of CRAC channel ion selectivity by STIM1. *Nature*. 2012 Feb 9;482(7384):241-5.

Meyer RM, Gospodarowicz MK, Connors JM, Pearcey RG, Wells WA, **Winter JN**, Horning SJ, Dar AR, Shustik C, Stewart DA, Crump M, Djurfeldt MS, Chen BE, Shepherd LE; NCIC Clinical Trials Group; Eastern Cooperative Oncology Group. ABVD alone versus radiation-based therapy in limited-stage Hodgkin's lymphoma. *New England Journal of Medicine*. 2012 Feb 2;366(5):399-408.

Thadhani R, Appelbaum E, Pritchett Y, Chang Y, Wenger J, Tamez H, Bhan I, Agarwal R, Zoccali C, Wanner C, **Lloyd-Jones D**, Cannata J, Thompson BT, Andress D, Zhang W, Packham D, Singh B, Zehnder D, Shah A, Pachika A, Manning WJ, Solomon SD. Vitamin D therapy and cardiac structure and function in patients with chronic kidney disease: the PRIMO randomized controlled trial. *JAMA—Journal of the American Medical Association*. 2012 Feb 15;307(7):674-84.

Help Feinberg Track Journals

The Feinberg Research Office regularly tracks research published by Feinberg investigators. The citations are used on web pages, in newsletters and social media, for internal reporting, and more. To more accurately track these journals, the Research Office asks that Feinberg investigators use the following institution name in the address field when publishing in peer-reviewed journals: **"Northwestern University Feinberg School of Medicine, Chicago, Illinois."**



Funding Opportunities

Ancillary Studies to Major Ongoing Clinical Research Studies to Advance Areas of Scientific Interest Within the Mission of the NIDDK (R01)

[More information](#)

Sponsors: United States Department of Health and Human Services (HHS), National Institutes of Health (NIH), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

Submission Deadline: June 5

Upper Amount: \$2.5 million

Synopsis: This opportunity encourages Research Project Grant (R01) applications from qualified investigators to conduct ancillary studies to major ongoing clinical research studies, including clinical trials, epidemiological studies, and disease databases supported by the NIDDK. Major studies include multi-center investigations, national databases and Phase 3 clinical trials.

This opportunity also encourages grant applications for ancillary studies utilizing major clinical research studies supported by other institutes and centers of the NIH, other government agencies, and the private sector. However, the proposed ancillary study must be designed to advance the scientific research mission of the NIDDK by focusing on diseases and areas of interest of the institute.

NIH Exploratory/Developmental Research Grant Program (Parent R21)

[More information](#)

Sponsor: United States Department of Health and Human Services (HHS), National Institutes of Health (NIH)

Submission Deadline: June 16

Upper Amount: \$275,000

Synopsis: The Exploratory/Developmental Grant (R21) mechanism is intended to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of these projects.

These studies may involve considerable risk but may lead to a breakthrough in a particular area, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact on a field of biomedical, behavioral, or clinical research.

[View more funding opportunities](#)

Featured Events

4/10 TEDMED Live Simulcast

Speakers will include Francis Collins, director of NIH, and Jill McGovern, president and CEO of the American Red Cross.

Date: Tuesday, April 10 to Friday, April 13

Location: Various locations at Feinberg and NMH (Chicago campus)

Contact: a-chase2@northwestern.edu
[More information](#)

4/16 Science of Team Science Conference

The annual conference is a forum to enhance our understanding of how best to engage in team science to meet society's needs. Registration required.

Date: Monday, April 16 to Thursday, April 19

Location: Wyndham Chicago, 633 N. St. Clair St. Chicago

Contact: I-trimuel@northwestern.edu
[More information](#)

4/19 Annual M.A.D. Day & CNADC Lecture

"Strategies to Reverse Neural Network Dysfunction in Alzheimer's Disease," presented by Lennart Mucke, MD, Gladstone Institute of Neurological Disease and University of California, San Francisco

Date: Thursday, April 19, Noon to 1 p.m.

Location: Robert H. Lurie Building - Baldwin
303 E. Superior St. (Chicago campus)

Contact: s-stade@northwestern.edu
[More information](#)

4/19 INVO Match 2012 - Entrepreneurial Speed Dating

INVO and NUCATS aim to connect inventors with experienced business entrepreneurs. Registration required to present; event is open to public.

Date: Thursday, April 19, 9 a.m. to 1 p.m.

Location: Robert H. Lurie Building - Ryan Family Atrium
303 E. Superior St. (Chicago campus)

Contact: j-bray@northwestern.edu
[More information](#)

4/30 CERC Poster Session and Keynote Presentation

The Community Engaged Research Center keynote will be presented by Daniel Blumenthal, MD, MPH, Morehouse School of Medicine, and LaShawn Hoffman, Pittsburgh Community Improvement Association of Atlanta

Date: Monday, April 30, 1:30 to 3 p.m.

Location: Robert H. Lurie Building - Hughes
303 E. Superior St. (Chicago campus)

Contact: cerc@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.

