

FSM Research Newsletter

October 2008

Feinberg School of Medicine Office for Research
Northwestern University

FEINBERG SCHOOL PLAYS ROLE IN LANDMARK HISPANIC HEALTH STUDY

The Feinberg School of Medicine is one of four national sites participating in the largest study of health and disease in the Hispanic/Latino population living in the United States. Martha Daviglus, MD, MPH, PhD, professor of preventive medicine, is the principal investigator for the study. She leads a multi-disciplinary team of health experts from Northwestern and the University of Illinois at Chicago. The study is funded by a \$11.1 million, 6 ½ year grant from the National Institutes of Health (NIH).

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"We know that Latinos, who are becoming the largest minority group in the country, have a higher prevalence of obesity, diabetes, hypertension, and other risk factors," Dr. Daviglus notes. This study will explore the role of lifestyle factors such as diet, acculturation, and socioeconomic status, along with limited access to health care. Because of the accelerated growth of the Latino population nationwide and in Chicago, there is a great need to assess health needs for planning and implementation of linguistically and culturally appropriate services.

The study will determine the role of cultural adaptation and disparities in the prevalence and development of disease.

Like the landmark Framingham Heart Study, which helped increase understanding about the origins of heart disease and its risk factors, and the Jackson Heart Study, which is exploring heart disease in African Americans, the Hispanic Community Health Study of Latinos promises to make an important contribution to the nation's public health.

Dr. Daviglus and her team are studying a community-based sample of 4,000 persons of Hispanic origin, including both men and women, who are between the ages of 18 and 74 at baseline. "Within each group of 4,000, we hope to recruit 2,500 persons ages 45 to 74 and 1,500 between the ages of 18 and 44," she says. "We want the population to be 50 percent women and include persons of varying socioeconomic status."

Participants in the study undergo a series of physical examinations and interviews to help identify the prevalence of risk factors for a wide variety of diseases, disorders, and conditions. They will be followed initially for up to four years. The clinical examination is being conducted at a

community-based health center that primarily serves Latino patients.

Having the third largest Hispanic population in the country, Chicago is a good center for this study. "This is an ideal site because our Hispanic population is large, approximately 900,000, and reflects a good representation of Hispanic groups, including those of Mexican, Puerto Rican, and Central/South American origin," Dr. Daviglus says. The other three field sites of this national study are the Albert Einstein College of Medicine of Yeshiva University; the University of Miami; and San Diego State University.



Martha Daviglus, MD, MPH, PhD

"Our recruitment of participants is in the early stages," Dr. Daviglus notes.

"Still, it is interesting to note that we can already see that, compared to the national average, there are higher percentages of Hispanics with diabetes, cardiovascular disease, and other health problems. Many of these people also are underserved in our health system and have no health insurance."

According to the NIH, the Hispanic population in the U.S. is expected to triple in growth by 2050. As this population increases, and as they continue to experience varying rates of disease, it is important to understand the risk factors and health behaviors that contribute to these conditions. Dr. Daviglus says that when the data are gathered she hopes to be able to fill in some vital gaps in knowledge of disease risk factors in the various sectors of the Hispanic population. "Through the Hispanic Community Health Study, the Feinberg School can make an impact in the Hispanic community and beyond," Dr. Daviglus says. "We hope to make an impact on the health of the Hispanic community and possibly translate the information to other underserved populations in the U.S."

MEET LAIMONIS A. LAIMINS, PHD



Guy and Anne Youmans Professor of Microbiology-Immunology

What are your research interests?

My research focuses on the human papillomavirus (HPV) and its role in the development of cervical cancer. I first became interested in this field of study about 20 years ago, when the association between certain types of the virus and cervical cancer was first

discovered. At that time, I had just begun my career in microbiology-immunology, and was excited at the prospect of playing a role in finding ways to prevent the virus and thus prevent cervical cancer.

What are some of your current research projects?

My laboratory at the Feinberg School studies the molecular biology of HPV. These efforts are divided into two main categories: (1) examination of the how the viral oncoproteins, E6 and E7, contribute to the development of malignancy; and (2) studies on the mechanisms of controlling the viral life cycle in differentiating epithelia. To date, more than 70 distinct types of HPV have been identified, and approximately one third of these specifically target squamous epithelial cells in the genital tract. Of these, a subset including types 16, 18, and 31 have been shown to be the etiologic agents in most cervical cancers.

What is the ultimate goal of your research?

One of our goals is to understand why infection by specific HPV types contributes to the development of malignancy. For these studies, we examine the interaction of oncoproteins E6 and E7 with cellular proteins. In particular, E6 binds the p53 protein and facilitates its degradation by a ubiquitin-mediated pathway. The E7

oncoprotein binds the retinoblastoma gene product and alters its cell cycle regulatory proteins. We are examining the interaction of the E6 and E7 proteins with these cellular proteins at both the biochemical and genetic levels.

We also study the HPV life cycle. The production of HPVs is closely linked to epithelial differentiation, and progeny viruses are replicated in terminally differentiated epithelial cells. We use organotypic tissue culture systems to faithfully reproduce the differentiation program of epithelial cells in the laboratory. Using this system, the viral life cycle has been duplicated and we are currently studying the mechanisms that regulate viral DNA replication and gene expression. We hope that these studies provide insight into viral pathogenesis and the mechanisms that regulate epithelial differentiation.

In the last few years, a vaccine has been introduced that blocks infection by HPVs and prevents the development of 70 percent of future cases of cervical cancer. This is a major advance in the prevention of cervical cancer, but there is still work to be done. I hope that our efforts at Feinberg School will contribute to vaccines that will target all HPV types. It is important to note that the vaccines only work before an infection is present. Our hope is that the work we do will help in the development of a treatment for existing HPV lesions. This would be a major step in helping to prevent many more cases of cervical cancer.

What brought you to the Feinberg School of Medicine?

I came to the Feinberg School 14 years ago—and continue to enjoy my work here—because of its positive environment and the combination of great science and great colleagues.

JEFFREY WEISS, PHD, IS NEW DIRECTOR OF RESEARCH CORE PLANNING



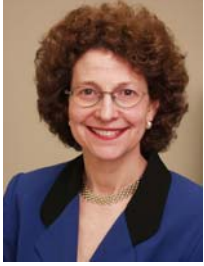
The Feinberg School of Medicine has strengthened its support for researchers with the recent appointment of Jeffrey Weiss, PhD, research professor of medicine, as director for research core planning in the Feinberg School of Medicine Office for Research. In this half-time position, Dr. Weiss will lead the efforts of the dean's office to maximize quality, efficiency, and availability of the Feinberg School's state-of-the-art research cores. He will also serve as the liaison to the Center for Comparative Medicine (CCM) and the core facilities administrator in the Office of Vice President for Research.

Dr. Weiss, who came to Northwestern in 1993, is a long-time collaborator of Dean J. Larry Jameson. His work in reproductive biology has been widely published in journals such as PNAS, Endocrinology, Journal of Biological Chemistry, and Nature Genetics. His research work has included using ethyl nitroso urea mutagenesis screens to study sex determination; studies of estrogen action in the male reproductive system; and defining developmental components of testis differentiation.

In announcing this appointment, Rex Chisholm, PhD, dean for research, notes Dr. Weiss's knowledge of the research environment at Feinberg. "Jeff's extensive experience and use of many research cores gives him a perspective that helps us assure that cores meet the needs of our research community," Dr. Chisholm says. "He has also managed one of the largest mouse colonies at Northwestern, giving him a unique perspective as a CCM user. His appointment supports our efforts to improve the environment for doing research at the Feinberg School."

"I am excited about this opportunity," Dr. Weiss says. "My job will be to support the cores' effort to provide the services our investigators need to be successful."

SPONSORED AWARDS



Amy S. Paller, MD

*Walter J. Hamlin Professor of Dermatology
Chair, Department of Dermatology*

*Project title: Genetics of Atopic Dermatitis-
Eczema Herpeticum*

Sponsor: National Institutes of Health

This grant is for two studies as part of the Atopic Dermatitis Vaccinia and Immunization Network (ADVNI). The two titles are: 1) Genetics of Atopic Dermatitis-Eczema Herpeticum 2) ADVNI Biomarker Registry Study.

The objective of the genetics study is to use new genomic technologies using high-throughput genotyping and guided by gene expression profiling studies in skin samples infected with three different viruses (HSV-1, Vaccinia and molluscum contagiosum virus [MCV]) to provide significant and novel information on the pathways responsible for the development of Eczema Herpeticum and possibly other relevant viral infections seen more commonly in AD subjects.

The purpose of the registry study is to facilitate ADVNI clinical research designed to reduce the risk of eczema vaccinatum (EV), a complication of vaccinia immunization that occurs in patients with atopic dermatitis, by collecting the relevant data and blood samples and providing participating investigators with access to a pool of potential study subjects for subsequent studies.



James R. Bartles, PhD

Professor of Cell and Molecular Biology

*Project title: The Roles of Espins in Hair Cell
Stereocilia*

*Sponsor: National Institute on Deafness and
Other Communication Disorders*

Hearing and vestibular function depend critically on fingerlike protrusions called stereocilia, which are found atop hair cells in the inner ear. At the core of each stereocilium is a specialized cytoskeletal element, a parallel actin bundle, which acts as a molecular scaffold and determines stereocilium dimensions, placement, and physical properties. We have discovered and are characterizing a novel family of actin-bundling proteins, the espins, which cross-link the stereocilium's parallel actin bundle and thereby regulate stereocilium length, diameter, and integrity.

In addition, we have found that espins are the target of genetic mutations that cause deafness and vestibular dysfunction in mice and in humans. The goals of this grant are to determine how espins with deafness mutations differ from normal espins in their interactions with actin filaments and bundles, to elucidate the effects of espin deafness mutations on hair cell stereocilia in mouse models, and to use a newly developed epithelial cell model to study the targeting and interactions of espins and other stereocilium proteins.

[Click here for a list of recent FSM sponsored awards](#)

NEW Facilities and Administrative (F&A) Rates for Use in Proposals Submitted and Awards

Negotiations have been made with the Department of Health and Human Services (DHHS) regarding the University's F&A rates. The new rates apply to new and renewal awards received on or after September 18, 2008 with expenditure transactions from October 1, 2008 going forward. The new federally sponsored research on-campus F&A rate is 52.5%.

For more details, download this memo issued by the Office of the Vice President for Research: http://www.research.northwestern.edu/osr/docs/FY09_FA_Rate_Alert_Memo.doc.

NEW eProposal System Launched on Sept. 22nd

OSR-1 and OSR-100 forms can now be electronically routed throughout the University via the eProposal application developed by the Office for Research Information Systems. The ultimate goal of eProposal is to simplify the proposal submission process by making the completion and routing of OSR-1 and OSR-100 forms easier for Northwestern faculty and staff. Office of Sponsored Research (OSR) anticipates that eProposal functionality will be replaced by InfoEd's proposal development module, currently scheduled to begin implementation in 2009.

Visit <http://www.eproposal.northwestern.edu/login.aspx> to access the new eProposal system. A step-by-step instruction on how to use the system is available on the front page. Please direct questions about the eProposal system to Bruce Elliott, director of OSR-Chicago, at b-elliott@northwestern.edu.

ANIMAL RESEARCH CORNER



Did a new graduate student, postdoc, fall student, etc. join your lab? Are they assisting with the research on your Animal Study Protocol (ASP)? Will they be using animals?

If you said "yes" to all of the above, you will need to add them to your ASP, even if they are only with your lab for a few months. Adding new staff is easy. The following three things need to occur:

1. The new staff member will need to enroll in the Occupational Health and Safety Program.
2. The new staff member will have to complete online training at the AALAS Learning Library.
3. You will have to add the new staff member to your ASP by submitting an addendum and revised protocol to the Institutional Animal Care and Use Committee (IACUC) Office.

How do you start the above process? All the information you need is located on the IACUC web site at <http://www.research.northwestern.edu/oprs/acuc/forms/8-2008%20new/AddendumChecklist8-2008.doc>. Then, look for section 9 A or B as appropriate on the form.

How long does the process take? The approval process for new staff is only one or two days, as long as they have completed steps 1 and 2 above. For questions, please contact the IACUC office at 312-503-9339 or email at acuc@northwestern.edu.

NIDRR Grant Funds Five-year RERC for P&O at NUPRL & RERP

The National Institute of Disability and Rehabilitation Research (NIDRR) of the United States Department of Education has awarded the Northwestern Prosthetics Research Laboratory (NUPRL) and Rehabilitation Engineering Research Program (RERP) a five-year grant as a Rehabilitation Engineering Research Center (RERC) for Prosthetics and Orthotics (P&O) (NIDRR Grant H133E080009).

Steven A. Gard, PhD, and Stefania Fatone, PhD, BPO(Hons), are coprincipal investigators of this grant. However, the combined abilities and efforts of the NUPRL & RERP staff, faculty, and graduate students contributed to the success of the grant proposal. During the next five years of this NIDRR grant cycle, the NUPRL & RERP will conduct seven research projects, five development projects, and multiple educational projects that will expand the understanding of the biomechanics of human movement, develop improved devices for people with amputations, and train others in these areas of knowledge.



Front row (L to R): Rebecca Stine, Dilip Thaker, Dudley Childress, Kathy Waldera, Stefania Fatone
Back row (L to R): Andrew Hansen, Joshua Rolock, Edward Grahn, R.J. Garrick, Steven Gard, Craig Heckathorne, Kerice Tucker

WELCOME NEW FACULTY

Linda Ernst, MD joins as assistant professor of pathology. She received her graduate medical education from Yale University School of Medicine in anatomic and clinical pathology. She held a faculty appointment at the University of Pennsylvania School of Medicine in pathology. Her recent article published in *Pediatric and Developmental Pathology* is titled, "Familial perinatal liver disease and fetal thrombotic vasculopathy."

Steven Kosak, PhD joins as assistant professor of cell and molecular biology. He holds a degree in molecular genetics and cell biology from the University of Chicago. He was a postdoctoral fellow at the Fred Hutchinson Cancer Research Center in Seattle, where his research focused on the role of genome organization in coordinate gene regulation during hematopoiesis.

Angela Lawson, PhD joins as assistant professor of obstetrics and gynecology. Her degree is from the University of Illinois at Urbana-Champaign in psychology. She was an instructor in the department of behavioral sciences at Rush University Medical Center.

Nikia Laurie, PhD joins as assistant professor of pediatrics. She was a postdoctoral research associate at St. Jude Children's Research Hospital where her research focused on broad-spectrum and targeted chemotherapy for retinoblastoma.

Jing Liu, PhD joins as assistant professor of medicine. She is an expert in JNK signaling, which has been implicated in various pulmonary diseases. Her prior academic appointment was in the Ben May Department for Cancer Research at the University of Chicago.

Yong-Chao Ma, PhD joins as assistant professor of pediatrics. He has a degree in physiology, biophysics, and molecular medicine from Weill Medical College at Cornell University and obtained his postdoctoral research training from Harvard Medical School.

Erica Marsh, MD joins as assistant professor of obstetrics and gynecology. After graduating with honors at Harvard Medical School, she obtained further medical training at Brigham and Women's Hospital in Massachusetts and the Feinberg School. She received a master of science degree in clinical investigation from Northwestern University.

Brian Mitchell, PhD joins as assistant professor of cell and molecular biology. His postdoctoral work focused on a novel mechanism for how cilia acquire planar polarity. His degree is in neurobiology from the University of North Carolina, Chapel Hill.

LaTasha Nelson, MD joins as assistant professor of obstetrics and gynecology. She received her graduate medical education from Tulane University School of Medicine and holds a master of science degree in clinical investigation from Northwestern University.

Pembe Ozdinler, PhD joins as assistant professor of neurology. She obtained her degree in cell biology, anatomy, and neuroscience from Louisiana State University. One of her most recent research projects is titled, "Translating mouse CSMN biology toward human therapies," sponsored by the ALS Association.

Harris Perlman, PhD joins as associate professor of medicine. He was associate professor of molecular microbiology and immunology and director of the flow cytometry core facility at the Saint Louis University Medical School. One of his recent research projects is titled, "The role of BH3 and multi-BH domain Bdl-2 genes in regulating the development of arthritis."

IN THE NEWS

The Benefits of Therapy by Phone

The New York Times – October 2nd

<http://well.blogs.nytimes.com/2008/09/22/the-benefits-of-therapy-by-phone/>

"The problem with face-to-face treatment has always been very few people who can benefit from it actually receive it because of emotional and structural barriers," said David Mohr, professor of preventive medicine at the Feinberg School of Medicine and lead author of the study, published in the September issue of *Clinical Psychology: Science and Practice*. "The telephone is a tool that allows the therapists to reach out to patients, rather than requiring that patients reach out to therapists."

STAFF PROFILE: LISA HURLEY



*Department of Medicine – Jameson Lab
Lab Manager*

Where are you from? I grew up in the western suburbs of Chicago in Downers Grove, but I currently live on the northwest side of Chicago.

What's your educational background? I have a BS from University of Illinois, Champaign in biology/biomedical engineering. I earned a master's degree in biomedical engineering from Rensselaer Polytechnic Institute in Troy, New York.

What's a typical day for you? That depends on the day! I usually get in by 8 a.m. and follow up on e-mail, place orders, make phone calls to repair people, etc. for the first hour—routine administrative stuff. After that I try to touch base with my two technicians, Lisa Fisher and Roger Bares, to see what is going on down in the animal rooms and help them follow up on any health reports. Based on our weaning, we plan what else to do for the day. That may include doing dissections, surgeries, or collecting other data for students to assist in their projects. I try to make at least one visit per day to the barrier in CCM to check on our colonies. We maintain about 25 separate mouse lines downstairs and have databases to track breeding and genotype for every mouse in the colony. At least two days a week for the last year or so, I have been here at 5 a.m. to do IVF for cryopreservation of our mouse colonies. I have worked extensively with Lynn Doglio and Justin Meyer in the transgenic core in order to acquire and hone those skills for our lab, and we trade information and experience with different strains.

How long have you been with the university? Seven and a half years, since April 2001.

What is some interesting work you have done? I spent three years at the Westside VA hospital working on development of biodegradable implants for long term delivery in the treatment of tuberculosis. I worked with primates, and that was challenging.

What do you like about your job? I love the people I work with and the research environment here at Northwestern. It is not uncommon for people from other labs to come up and ask for help and advice or for members of our laboratory to get advice from others on the floor. In general, people will try their best to help you find the resources you need. We share a lot of resources both intellectual and physical, and I think it is a pretty exciting work environment.

What are your hobbies or favorite books and movies? I have a lot of hobbies, but the things I have done with the most intensity over the past several years are these: I study/speak/teach Irish language and attend a class once a week to maintain my fluency. I read voraciously and am currently reading *The Brief Wondrous Life of Oscar Wao*. I play tin whistle, a traditional Irish instrument. About three months ago, I took up rock climbing and intend to continue.

What do you do outside of work? Aside from spending time with friends and family, I spend time working on my Chicago bungalow, which is about 88 years old and always needs some kind of work.

STUDENT PROFILE: KELLI SWAN



*Genetic Counseling Program
Class of 2009*

Where did you obtain your undergraduate degree?

I obtained a bachelors of science in neuroscience from Westmont College, a small Christian college nestled in the hills of beautiful Santa Barbara, California.

What kind of research are you interested in?

Currently, I am interested in the influence of large for-profit companies on health care services. More specifically I am researching the impact of a marketing campaign initiated by Myriad Genetics Laboratories educating physicians about how to order BRCA genetic tests without referring to a genetics professional. I will be looking at the influence their marketing has on ob/gyns regarding testing practices and their perceived roles in providing genetic services. I feel this type of research is important as for-profit companies potentially have the ability to affect patient care, in both positive and negative ways, and it becomes increasingly important to be aware of potential conflicts of interest created by these relationships.

Why did you choose the Genetic Counseling Program at FSM?

Northwestern offers a unique opportunity to take part in a dual degree program, obtaining both a masters in genetic counseling along with a masters in medical humanities and bioethics. I have always had a strong interest in bioethics so the opportunity to pursue both areas of study was just too great to pass up. Additionally, I think Northwestern is an incredibly respected institution, which will undoubtedly prepare me for a successful career as a genetic counselor.

How would you describe the faculty at FSM?

The faculty at Northwestern has been wonderful to work with. Everyone is very passionate about their career and interests and they are eager to share that passion with their students.

What do you like to do on your spare time?

Well, I spend a lot of time with my husband and chocolate labrador retriever. We are regulars at the dog park and various coffee shops around town. I also love to travel, and this time of year we spend every Sunday cheering on the Denver Broncos.

Look for weekly event announcements and funding opportunities in your email.

UPCOMING EVENTS

Clinical Research Education Lecture Series:

“NUCATS Update”

Peri Todd, Director of Clinical Research, DuPage Medical Group
251 E. Huron St., Feinberg Pavilion, Conference Rooms B & C – CHI

Friday, October 17th, Noon - 1 p.m.

For more information, visit:

www.nucats.northwestern.edu/education/CRPT/ACCR/seminars.html

Presented by Advisory Council for Clinical Research at Northwestern University (NUCATS)

“RAIDing the NIH for Drug Development”

David G. Badman, PhD, Program Officer, NIH RAID Pilot Program
303 E. Superior St., Lurie Building, Baldwin Auditorium – CHI

Monday, October 20th, 1 – 2:30 p.m.

Register to attend and find details about live webcasting at:

www.nucats.northwestern.edu/events/nih-raid.html

Presented by Northwestern University Clinical and Translational Sciences Institute (NUCATS)

Community-Engaged Research Seminar Series:

“The Impact of Housing and other Socioeconomic Factors on Diabetes Care: Health Disparities Research in Community Settings”

Bechara Choucair, MD, Assistant Professor of Family Medicine

Wednesday October 22nd, 11 a.m. – Noon

303 E. Chicago Ave, Ward 5-230, CHI

Video Conference Locations:

1731 N. Marcey, Conf Room A&B, CMRC

1001 University Place, Evanston – to RSVP contact mclark@enh.org

Presented by NUCATS Community-Engaged Research Center

The First Annual Women's Health Scientific Symposium:

“Women and Cognitive Health”

Keynote Speaker: Phyllis M. Wise, PhD, University of Washington

Friday, October 24th, 8:30 a.m. – 6 p.m.

250 E. Superior Street, Prentice Women's Hospital

To register, visit:

www.scs.northwestern.edu/pdp/npdp/women-cognitive-health/

Presented by The Institute for Women's Health Research at Northwestern University

2008 Drug Discovery Symposium:

“Hits to Leads to Drugs: What Makes a Chemical a Drug?”

Keynote Speaker:

Christopher A. Lipinski, PhD, Mellior Discovery, Inc.

303 E. Superior St., Lurie Building, Lurie Atrium – CHI

Monday, November 10th

Poster Session: 12:30 – 2 p.m.

Keynote Lecture: 2:30 – 3:30 p.m.

For more information, visit:

www.research.northwestern.edu/cddcb/events/symposium/2008.html

Presented by Center for Drug Discovery and Chemical Biology

Event organizers are encouraged to submit calendar items on

[Plan-it Purple](#). For more events, visit

www.feinberg.northwestern.edu/research/calendar/.

FUNDING OPPORTUNITIES

Potamkin Prize for Research in Pick's, Alzheimer's and Related Diseases

American Academy of Neurology

<http://www.aan.com/science/awards/?fuseaction=home.info&id=13>

Deadline: 11/03/2008

Amount: \$100,000. The recipient is expected to present a 20-minute lecture during an aging and dementia scientific session at the 61st AAN Annual Meeting. The recipient will receive a medallion and \$100,000 prize, complimentary registration for the 61st Annual Meeting, and recognition at the 2009 Awards Luncheon at the 61st Annual Meeting.

Synopsis: A prize of \$100,000 is awarded to a researcher in recognition of major contributions to the understanding of the causes, treatment, prevention, and ultimately the cure for Pick's, Alzheimer's, and related diseases.

Eligibility: The applicant must be in any of the following biological disciplines: neurology, neuropathology, biochemistry, molecular biology, molecular genetics, chemistry, pharmacology, immunology, physiology, or cell biology.

American Heart Association Clinical Research Program

American Heart Association (Founders Affiliate)

<http://www.americanheart.org/presenter.jhtml?>

Deadline: Letters of Intent are due 11/28/08. Applications are due 1/27/09.

Amount: \$110,000. \$50,000 per year, plus 10 percent indirect costs

Synopsis: The sponsor provides funding for this program to encourage early career investigators who have appropriate and supportive mentoring relationships to engage in high quality introductory and pilot clinical studies that will guide future strategies for reducing cardiovascular disease and stroke while fostering new research in clinical and translational science, and encouraging community-and-population-based activities.

Eligibility: Healthcare professionals with a masters, MD, DO or PhD degree. Individuals who have held NIH RO1 grants or American Heart Association grant-in-aid awards (or equivalent awards) are not eligible to be the principal investigator. Interdisciplinary research teams are eligible.

For more funding opportunities, visit:

www.feinberg.northwestern.edu/research/funding-opportunities/

We want to hear from you!

Your feedback and suggestions are always welcomed!

Feinberg School of Medicine Office for Research

E-mail: fsm-research@northwestern.edu

Phone: 312-503-1499 Fax: 312-503-2790

www.feinberg.northwestern.edu/research/