Breakthroughs

Feinberg School of Medicine Research Office

August 2016

New research being conducted through Northwestern University's Institute for Sexual and Gender Minority Health and Wellbeing examines the complex social, relational and spatial networks that lead to health disparities among LGBT people.

New Institute Spurs Research on Sexual and Gender Minority Health

From the National Institutes of Health (NIH) to local organizations, funding agencies are becoming increasingly aware of a major population facing health disparities in the United States: sexual and gender minorities.

Studies show that members of this group, which includes lesbian, gay, bisexual, transgender, queer and gender-non-conforming people, have a higher risk of suicide, substance abuse and sexually transmitted infections. They also face stigma, discrimination and denial of human civil rights, which can affect their life expectancy, mental and physical health and access to quality care, as well as their overall quality of life.

Investigators in Northwestern University's Institute for Sexual and Gender Minority Health and Wellbeing (ISGMH), launched in early 2016, are already stimulating new research to improve the health of this population.

"Recent increases in national and local attention to sexual and gender minority health have created an extraordinary window of opportunity to conduct innovative research on the most important health concerns and needs of our community, to train scientists and clinicians in the best practices to meet those needs and to profoundly lower barriers to healthcare – all done with the goal of eliminating inequities in health outcomes," said ISGMH director Brian Mustanski, PhD, associate professor of Medical Social Sciences (MSS).

Since early 2009, Mustanski's IMPACT Program, now housed jointly within ISGMH and MSS, has pioneered research on the health of LGBT adolescents and young adults. Mustanski leads several projects through IMPACT, among them an ongoing study funded by the National Institute of Minority Health Disparities exploring the ethics of conducting LGBT health research with adolescents. He also heads a longitudinal study that follows gay/bisexual teens into young adulthood and an online HIV prevention program being tested in a randomized controlled trial, both funded by the National Institute of Drug Abuse
(NIDA).

HIV is a central topic for research within the institute, as new diagnoses continue to increase among young men who have sex with men, even as they decrease in every other demographic group. One new project, led by the ISGMH's

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Northwestern Medicine®

Sexual and Gender Minority Health

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associate director of scientific development Michael Newcomb, PhD, will explore a new intervention to prevent HIV in young, substance-using male couples.

"Romantic relationships provide myriad health benefits to couples, yet the majority of new HIV infections occur in the context of serious romantic relationships in young men who have sex with men," said Newcomb, who received a New Innovator Award from NIDA for the research. "By teaching couples skills for improving their relationships, in addition to HIV prevention skills, we aim to optimize the physical and emotional health of the dyad."

The intervention will also provide couples with skills for reducing alcohol and drug use – a major risk factors for HIV acquisition – and for managing the effects of substance abuse on behavior.

One of the most innovative aspects of the program is that it supports both primary prevention (stopping an HIV-negative person from acquiring the virus) and secondary prevention (stopping an HIV-positive person from transmitting the virus to someone else).

"Integrating these two types of prevention saves community agencies time and money because they do not need to tailor their intervention programs to either HIV-negative or HIV-positive people," Newcomb explained.

Other new grants to members of the institute focus on building connections with sexual and gender minorities within the community. George Greene, PhD, received funding from the Chicago Department of Public Health to evaluate PrEP implementation and other care services in the city. Likewise, Gregory Phillips II, PhD, was awarded a seed grant from the Alliance for Research in Chicagoland Communities to build a partnership between the university and the Latino community in Chicago in hopes of identifying barriers to study participation

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Members of the ISGMH at the Institute's opening reception earlier this year.

and health concerns faced by this population. Phillips and Greene both direct the ISGMH's EDIT program, which uses evaluation research to improve the delivery of services to sexual and gender minorities.

With Michelle Birkett, PhD, director of the ISGMH's Complex Systems and Health Disparities Research Program, Phillips also received a five-year, $3 million grant this summer from NIDA to develop a software suite called netCanvas, which can be used to administer surveys and keep track of complex social, relational and spatial data.

"The exact pathways that produce disparities in marginalized populations are difficult to delineate, as stigma produces multiple intersecting individual, relational and environmental processes that are difficult to understand using traditional measurement instruments," Birkett said. "Our software, however, captures data on the social and contextual systems individuals are embedded within. We've already used the netCanvas framework to understand the social, sexual and drug networks of young men who have sex with men to better understand the transmission of HIV."

A National Objective

Every decade, the U.S. Department of Health and Human Services sets science-based objectives for improving the health of Americans. While achieving health equity has always been an overarching goal, only recently, in its Healthy People 2020 agenda, did the organization acknowledge LGBT people as a population facing health disparities. The NIH, recognizing the need for coordinated research activities in this area, followed suit by creating a Sexual and Gender Minority Research Office and a working group, of which Mustanski was named a member this June. Northwestern, meanwhile, is leading the way among academic institutions.

"While the study of sexual and gender minority health is not new," notes ISGMH associate director Francesca Gaiba, PhD, "no university-wide, interdisciplinary academic institute has existed in the United States to provide thought leadership and scientific exploration of the interconnected dimensions of health and wellbeing for sexual and gender minorities, until now."

Better Healthcare for Children with Cystic Fibrosis

Susanna McColley, MD, Pediatrics, Division of Pulmonary Medicine

Through her research, Susanna McColley, '85 MD, professor of Pediatrics in the Division of Pulmonary Medicine, helps children born with cystic fibrosis, a life-threatening genetic disease that affects the lungs and digestive system. As associate director of the Cystic Fibrosis Center at Ann & Robert H. Lurie Children's Hospital of Chicago and deputy director for clinical research at the Stanley Manne Children's Research Institute, McColley's work touches many aspects of the disease, from improving screening and diagnoses to enrolling patients in trials testing new therapies.

Q&A

What are your research interests?
My research focus is cystic fibrosis (CF) in children. I use prospective databases to assess risk factors for worse outcomes, help with development of biomarkers and develop and conduct clinical trials. I have a particular interest in health disparities in minority children with CF. I am also involved in quality improvement and quality improvement research; currently my focus is improving the newborn screening process for cystic fibrosis to achieve earlier and more accurate diagnosis.

What is the ultimate goal of your research?
The goal of my research is that children with cystic fibrosis have normal lives, both as children and as adults. This requires development of better therapies and the application of those therapies to the right person at the right time.

What types of collaborations are you engaged in across campus (and beyond)?
Manu Jain, MD, has been a key collaborator for 20 years. He directs Northwestern Medicine's Adult Cystic Fibrosis Program, and we have long-standing collaborations in translational research and clinical trials. We have had numerous collaborations in diverse departments including the Microbiology-Immunology and Psychiatry. Many of the advances in CF are only possible due to great national and international partnerships, and I have many collaborators in the US and Europe.

How did you become interested in this area of research?
I became interested in cystic fibrosis as a student at Feinberg in the early 1980s. At that time, the cause of CF was unknown. It was a multi-system disease with a very high childhood mortality rate; there were very few adults with CF. There was a lot of research needed and a great chance to make an impact. My interest led me to enter the then brand-new field of pediatric pulmonology.

Who makes up your research team and what role does each individual play in your research?
My research team includes faculty collaborators, research coordinators, nurse practitioners, respiratory therapists and our entire clinical staff at the Cystic Fibrosis Center at Lurie Children's. Research is part of the continuum of care; it's important to give patients and families access to clinical trials, and many of our studies are embedded in clinical care.

Which honors are you most proud of and why?
I'm actually most proud that our CF Center at Lurie Children's, and Northwestern has received the Quality Care Award from the Cystic Fibrosis Foundation during our last two eligible cycles. The teamwork involved in both the care of the patients and the research is phenomenal.

What do you enjoy about mentoring young scientists in the lab?
I enjoy mentoring clinical and translational researchers in both research processes and career strategies. It's energizing to work with young investigators who are beginning to build a body of work.

Feinberg Welcomes New PhD Students to Campus

This fall, new PhD students from around the world arrived on the Chicago campus to join the Driskill Graduate Program in the Life Sciences (DGP), Northwestern University Interdepartmental Neuroscience Program (NUIN), Medical Scientist Training Program (MSTP), Clinical Psychology PhD program, Doctor of Physical Therapy/PhD program and Health Sciences Integrated PhD (HSIP) Program.

DGP welcomes 25 new PhD students. This group includes individuals with undergraduate degrees from nearby schools in the Midwest, and as far away as China, Vietnam and Bolivia. The DGP Students will complete courses and lab rotations during the first year, which allow them to explore several types of research before selecting a dissertation lab and project.

The new NUIN students hail from across the United States, from Maryland to Utah and New York to Baltimore. The entering class is comprised of 19 PhD candidates.

The MSTP welcomes 15 new students who will earn both their MD and PhD degree at Northwestern. They will complete two years of medical school before beginning their doctoral program in a lab. Once they earn their PhD, they will return to medical school to complete their medical degree. This year's entering class has earned undergraduate degrees from institutions that include Stanford University, Brown University and the University of California, Berkley.

Seven new students are beginning the Clinical Psychology PhD program. They will spend six years at Feinberg for training in the clinical practice and science of psychology, along with specific training needed for careers as clinical psychologists conducting research and/or clinical work in academic medical centers or other healthcare settings. Students in this year's class come from near and far, including Michigan, Pennsylvania, Minneapolis and Washington, DC.

The DPT-PhD (Eng) program welcomed one new student, Andrew Dragunas, who will earn both his Doctor of Physical Therapy (DPT) degree and PhD in biomedical engineering at Northwestern. He will complete two years of engineering school before starting the DPT program at Feinberg. Once he earns her DPT, he will return to the engineering school to complete his PhD degree. Dragunas earned his undergraduate degree from Case Western Reserve University.

Finally, four new students join the HSIP program to become its fifth entering class. Founded in 2012 and unique to Northwestern, HSIP trains students in processes and methodologies in clinical and population sciences through the Institute for Public Health and Medicine. The class comes from Egypt, Maryland, Illinois and China, and all previously earned master's degrees.

New MD/PhD students in the Medical Scientist Training Program.

Congratulations to all the new PhD students in these programs:

Driskill Graduate Program in the Life Sciences

Jihae Ahn
Triet Bui
Margarette Clevenger
Katherine Fetterman
Derrik Germain
Shana Gregory
Blanca Gutierrez Diaz
Ariel Harden
Dong Ho Kim
Timothy Kountz
Patrick Madden
Eric Martin
Joyce Ohiri
Ashley Queener
Yara Rodriguez
Caleb Stubbs
Milagros Suarez Palacios
Nathan Waldeck
Anna Woo
Shang-Yang Chen
Yu-Ying Chen
Chang Zeng
Jiyang Zhang
Guangyuan Zhao

Northwestern University Interdepartmental Neuroscience Program

Maite Azcorra-Sedano
Grace Bellinger
Katrina Campbell
Casey Dalton
Andrew Jo
Soojin Kim
Bryan McClarty
Torben Noto
Michaela Novakovic
Jacqueline Patterson
Chelsea Rugel
Vivek Sagar
Owen Shelton
Kacey Suvada
Tianyu Tang
Seth Thompson
Nathan Whitmore
Sophia Wienbar
Mingzheng Wu

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Investigating Sex Difference in Multiple Sclerosis Research

Abby Russi, Medical Scientist Training Program

Abby Russi a student in the Medical Scientist Training Program (MSTP), studies mouse models of multiple sclerosis (MS) to determine how certain individuals' immune systems predispose them to MS and orchestrate the autoimmune disease in the laboratory of Melissa Brown, PhD, professor of Microbiology-Immunology.

Q&A

Where is your hometown?

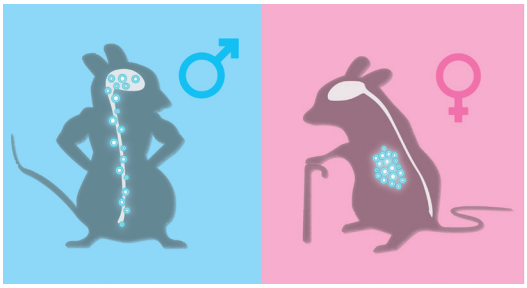
While I was born in Virginia and lived in West Virginia for six years, I consider Worthington, Ohio, my hometown. Worthington is a suburb of Columbus with a small-town feel. It's not uncommon to run into friends at the local ice cream shop on a Friday summer night or to marry your high school sweetheart – which I did!

What are your research interests?

My research interests are in the field of neuroimmunology. Specifically, I study a mouse model of MS. MS is an autoimmune disease where the body's own immune system attacks certain cells of the brain and spinal cord. It causes neurological symptoms that range from difficulty walking to cognitive decline. The most common clinical variant is relapsing-remitting MS, which is characterized by neurological symptoms with recovery in between relapses. My interests are in understanding how the immune system of some individuals predisposes them to MS and orchestrates the autoimmune disease process.

What exciting projects are you working on?

I'm currently working on a very exciting project that investigates sex differences in a mouse model of multiple sclerosis, known as experimental autoimmune encephalomyelitis (EAE). It's been known for several decades that females are more susceptible to both MS and EAE. In fact, women are three times more likely to develop MS than men are. Under the direction of Melissa Brown, PhD, I am investigating the cellular mechanisms responsible for male protection. While many researchers study females, we feel that better understanding why males are protected will reveal insights for treating MS patients. Specifically, we study a population of cells called "type 2 innate lymphoid cells" (ILC2s), which are a subtype of immune cells. In EAE/MS, we hypothesize that ILC2s dampen the autoimmune response and are protective against relapses. We discovered that ILC2s accumulate and are more active in the brains and spinal cords of male mice with EAE compared to female mice, perhaps explaining why males are protected from disease. Now we are investigating the upstream mechanisms to explain the sex-disparate activation of ILC2s. Our working hypothesis invokes a role for testosterone-dependent mast cell activation.



Russi and Brown's research was a finalist for the Golden Mole Award, which celebrates the moments of serendipity of science.

What attracted you to the PhD program?

I can't say I've always loved science – I actually wanted to be a painter for several years of my early childhood. However my goal has been to be a medical researcher for quite some time now. While I've always enjoyed science, it was the experience of losing my mother to MS that really drove me to pursue a career in medical research. I wanted to better understand the disease process and how to improve treatment options. Through an intensive research program as an undergraduate at The Ohio State University, I learned that the exploratory nature of biomedical research was just what I was looking for. However, it became clear to me that something was missing. That something was a bigger perspective and a need for instantaneous impact, which is why I decided to pursue the dual degree. Working with patients is such a humbling and encouraging experience. I believe that both my clinical and scientific ambitions will augment each other throughout my career.

What has been your best experience at Feinberg?

I've had many wonderful and exciting experiences while at Feinberg. One of my favorite experiences has been working with CommunityHealth Clinic, a free clinic in West Town for uninsured patients, through the Education Centered Medical Home (ECMH) program. Working with a team of students and two attending physicians, we provide care to a cohort of high-risk patients. I really enjoy working closely with a consistent team of individuals to impact patient care. As a student, it is gratifying to be involved in clinical decision-making and to observe patient improvement over the course of several months.

Another great opportunity I had was to represent Feinberg and share my research at the National Student MD/PhD

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Searching for New Treatments for Chronic Pain

Katie Rankin, Research Project Coordinator, Physical Medicine and Rehabilitation

Where are you originally from?
I was born in West Palm Beach, Florida, but was raised in Bel Air, Maryland.

What is your educational background?
I have a bachelor's of science in exercise science from East Carolina University.

Please tell us about your professional background. My first job was as an exercise physiologist for a cardiac rehabilitation program in Bel Air. After that, I took a position at Johns Hopkins University as a research assistant in the general internal medicine department. There, I worked on a clinical trial for weight loss that targeted persons with serious mental illness. After a couple of years, I was promoted to clinical research coordinator and handled the data collection side of the trial. This included taking vital signs and doing modified stress tests with subjects at each time point throughout the trial. I was at Hopkins more than five years.

Why did you choose to work at Northwestern?
Northwestern is one of the best academic institutions in the country with a strong reputation in the research world, and it's located in a great city. I was ready for a change in scenery and jobs. When I came for my first interview, it just felt like home.

How do you help scientists and/ or research students at the medical school?
Currently I'm a research project coordinator for Thomas Schnitzer, MD, PhD, professor of Physical Medicine and Rehabilitation. I'm currently coordinating three trials, one for individuals with osteoarthritis, one for individuals with chronic low back pain and one for individuals with fibromyalgia. All three of these trials are industry-sponsored pharmaceutical trials focusing on investigational new medications for pain.

What is your favorite part of the job?
My favorite part of the job is interacting with the research subjects. Each person provides such a unique background and is usually a pleasure to interact with. Every day is different, and I thrive off of that variability. It's nice to not have to sit at a desk all day.

Two of the clinical trials I am coordinating are being run by Pfizer and are investigating a new pain medication for individuals with osteoarthritis and chronic low back pain. It's always exciting to see subjects come back with some sense of pain relief.

What do you like to do in your spare time?
In my spare time I enjoy spending time outdoors, whether that's being active in some sort of social sports league or enjoying a glass of wine on a patio. I also love listening to all kinds of live music, reading and spending time with family and friends.

Anything else we should know about you?
I've only lived in Chicago for about a year and still really enjoy getting to explore new areas of the city and meeting new people.

Connect with Katie on LinkedIn.

Abby Russi *(continued from page 5)*

Conference in Keystone, Colorado. This was a fantastic experience to meet and work with several other students from MD/PhD programs around the nation. It was invigorating to learn from my peers and their diverse experiences.

How would you describe the faculty at Feinberg?
My mentors at Feinberg have been amazingly supportive. From my interests in research, teaching and clinical medicine, I have always been able to find an encouraging and knowledgeable mentor. The one characteristic that all my mentors share is that they challenge me. They push me to discover my passions and develop my skills. Importantly, they also encourage me to challenge them on concepts. I think this is one of the best characteristics of the Feinberg faculty – they are open, welcoming and enjoy a good heated discussion. The passionate discussions I have had with my mentors have really allowed me to grow, both personally and professionally.

What do you do in your free time?
My husband and I just welcomed our son, Curtis Michael, at the end of May. We are enjoying watching him grow and learn many new things! We also have two pugs and enjoy taking the whole family on long weekend walks or to the dog beach. In any extra free time, I enjoy running!

What are your plans for after graduation?
As of now, I plan to pursue a neurology residency. In the long run, I hope to stay in academic medicine, both running a lab and seeing patients in a clinic setting.

Research in the News

Chicago Tribune, July 1

What to know about the Zika risk in Chicago
Michael Angarone was quoted.

► This research was also featured in *CBS Chicago*

The Wall Street Journal, July 7

Obama Administration Awards $55 Million for Research on Genetic Links to Disease
Philip Greenland was quoted.

► This research was also featured in *CBS Chicago, The Boston Globe*

The Washington Post, July 7

4 in 10 highly rated sunscreens don't meet American Academy of Dermatology guidelines
Shuai Xu was quoted.

► This research was also featured in *Reuters, ABC News, CBS News, CNN, Fox News, Today and HealthDay*

The New York Times, July 7

Why Dieters Flock to Instagram
Bonnie Spring was quoted.

Chicago Tribune, July 11

Exercise linked to fewer memory problems in breast cancer survivors
Siobhan Phillips was quoted.

► This research was also featured in *HealthDay*

The New York Times, July 12

For Coffee Drinkers, the Buzz May Be in Your Genes
Marilyn Cornelis was quoted.

Bloomberg, July 13

How Office Lighting Can Boost Your Productivity
Phyllis Zee was quoted.

More media coverage available online.

Northwestern University
NUCATS
Clinical and Translational Sciences Institute

NUCATS Corner

Transform your research with health data on 6 million individuals

The Northwestern Medicine Enterprise Data Warehouse (NMEDW) contains health data for approximately 6 million individuals who have received healthcare treatment through Northwestern Memorial HealthCare or who participated in clinical research at Northwestern University Feinberg School of Medicine.

With new data on appointments, billing, diagnoses, labs, medications, orders, physician notes and allergy information added daily, the NMEDW is one of the largest repositories of its kind in the country.

You can use the NMEDW to run free feasibility queries using i2B2. Variables that can be searched include the number of patients that have been diagnosed with a disease, had a procedure, meet certain demographic criteria, had a laboratory result and were prescribed a medication.

NMEDW analysts are also available for an hourly rate to develop more complex reports and dashboards that can be customized to fit specific research need. For those who do not have adequate funding, the pilot data program, supported by NUCATS, will fund up to 8 hours of analyst time for preliminary queries.

For more information about the NMEDW, visit http://www.edw.northwestern.edu.

Sponsored Research

Co-PIs: Alfred George, Jr., MD, chair of Pharmacology, and Elizabeth McNally, MD, PhD, director of the Center for Genetic Medicine

Sponsor: National Heart, Lung, and Blood Institute

Title: "Channelopathies and Cardiomyopathies Among Sudden Deaths in the Young"

Genetic disorders of heart rhythm (channelopathies) and myocardial function (cardiomyopathies) are blamed for approximately a quarter of all cases of sudden unexplained death (SUD). Screening first-degree relatives of a SUD victim for genetic disease may identify additional family members at risk for sudden death. George and McNally plan to develop a three-tiered research study designed to uncover the prevalence and mutational spectrum of channelopathies and cardiomyopathies among cases of sudden death collected by the Sudden Death in the Young Case Registry that occur in the absence of epilepsy and have a high likelihood of having a cardiac etiology. The work will generate whole human genome sequence data on 500 SUD cases, allowing the investigators to perform a targeted analysis of several genes responsible for various heart disorders that can cause sudden death. Key collaborators include Greg Webster, MD, MPH, assistant professor of Pediatrics, and Steven White, MD, PhD, adjunct assistant professor of Pathology and Cook County's assistant medical examiner.

Read more about this project.

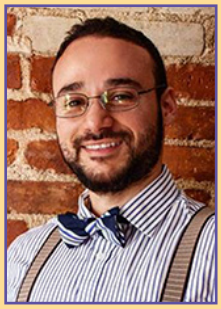
PI: Hongxin Dong, MD, PhD

Sponsor: National Institute of Mental Health

Title: "Age-Related Histone Modification Effect on Antipsychotic Action"

The use of psychotropic medications in the elderly population generates a number of obstacles, including increased incidence and severity of neurological side effects. Although aged-induced changes in pharmacokinetics (how an organism modifies a drug) may contribute to increased sensitivity to side effects of antipsychotic drugs (APD) in the elderly, age-related changes in pharmacodynamics (how a drug modifies an organism) at the target receptor level likely play a key role, too. Recent findings from Dong's lab suggest that age-related histone modifications at the gene promoters of target receptors could affect APD action. In this project, Dong aims to identify a novel mechanism by which epigenetic alterations during aging contribute to the increased severity of motor and cognitive side effects in the elderly. This work will also determine the therapeutic benefits of histone deacetylase inhibitors to reduce the severity of antipsychotic induced side effects using mouse models of aging.

Read more about this project.



Welcome New Faculty

Pablo Penaloza-MacMaster, PhD, joins as assistant professor of Microbiology-Immunology. His research examines the basic mechanisms of immune regulation and uses the information to develop vaccines to fight chronic infections such as HIV and HCV, as well as cancers. He comes from the Harvard Medical School where he was an assistant professor of virology and vaccine research. He earned his PhD in Immunology and Molecular Pathogenesis from Emory University. He then completed postdoctoral training at Beth Israel Deaconess Medical Center, focusing on virology research and vaccines. He is the principal investigator on an NIAID K22 Career Development Award and has published more than 18 peer-reviewed journal articles.

Welcome New PhD Students

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Medical Scientist Training Program

Zachary Chalmers
Margaret Coats-Thomas
Sky Dominguez
Zachary Gaertner
Cooper Hayes
Evguenia Morgun
Bilal Naved
Meghan Orr
Wesley Peng
Emily Pinheiro
Radhika Rawat
Roger Smith
Mihai Trucia
Karthik Vasan
Max Wang

Clinical Psychology PhD Program

Hayley Goldenthal
Julie Petersen
Andrea Russell
Tawny Spinell
Bayley Taple
Elizabeth Waldron
Molly Winston

DPT- PhD (Eng)

Andrew Dragunas

Health Sciences Integrated PhD Program

Aparna Balakrishnan
Mohamed Hasan
Manrui Zhang
Lindsay Zimmerman

Funding

Quantitative Approaches to Biomedical Big Data (QuBBD)

More information

Sponsor: National Science Foundation

Submission deadline: September 28

Upper amount: $300,000 per year, for up to three years

Synopsis: Researchers now have the ability to collect, store and analyze vast amounts of health- and disease-related data from biological, biomedical, behavioral, social, environmental and clinical studies, posing significant challenges in terms of visualization, modeling and analysis. The Quantitative Approaches to Biomedical Big Data Program encourages inter- and multi-disciplinary collaborations that focus on innovative and transformative approaches to address these challenges.

The Preconception Exposure Window and Health of the Offspring (R01)

More information

Sponsors: National Institute of Environmental Health Sciences

Submission deadline: October 4

Upper amount: $300,000 per year, for up to five years

Synopsis: This funding opportunity invites grant applications that use animal models to investigate whether environmental chemical exposures during the preconception time period (pre-fertilization) to germ cells can be mechanistically linked to later-life traceable phenotypic outcomes in the first generation offspring. Priority will be given to studies that provide clear exposure/biomonitoring and/or pharmacokinetic evidence establishing the relevance of the test system, exposure, levels and route, to non-occupational human exposures.

Pediatric Centers of Excellence in Nephrology (P50)

More information

Sponsors: National Institute of Diabetes and Digestive and Kidney Diseases

Submission deadline: November 2

Upper amount: $750,000 per year, for up to five years

Synopsis: This opportunity supports both basic and clinical research on pediatric kidney disease, with emphases on attracting new scientific expertise into the study of human pediatric physiology and kidney disorders; encouraging multidisciplinary research; exploring new areas with translational potential; and designing innovative approaches to study kidney disease in the pediatric population.

View more funding opportunities

Keeping Track of Your Work

For many researchers, keeping track of your work can seem like an uphill task. Often it is left to the last minute: hastily styling citations for CV updates, Googling dates of past conferences and searching for the correct spelling of coauthor names. Use your limited time wisely by taking advantage of these tools.

Use a reference manager

Keep up your Endnote Library. By using Endnote, not only can you export a bibliography for your CV, but you can also upload your citations into NCBI's MyBibliography to incorporate when creating your NIH Biosketch. Consider looking up your articles in Web of Science, which connects directly to Endnote Online or Endnote Desktop. Need help with Endnote? Take a Galter class or see our Galter EndNote Basics guide.

Need more flexibility online? Try Zotero. Consider downloading the Zotero online plugin for Mozilla. Once you've found your article or other document online, click on the Zotero button in your browser and Zotero automatically makes a citation out of it. Once you've finished, consider exporting your Zotero library into Endnote, if that's your preferred tool. Need help with Zotero? See our Galter Guide.

Set up alerts in literature databases

Use Scopus to track your body of work. Scopus is one of the largest databases covering the fields of science, technology, medicine, the social sciences, and arts and humanities. Use the Galter Library website to navigate to Scopus, and use their Author Search (it's the tab next to Document search) to find your author page. In your author page, look to the right side and you'll see the "Follow this Author" button. The instructions are easy to follow, and when you're done you can do the same for "Get Citation alerts" so you know when you've been cited. Need help? See the Scopus author citation alerts tutorial.

Track individual articles in Web of Science. Web of Science rivals Scopus in size and covers meeting abstracts, books and other gems. Use the Galter Library website to navigate to Web of Science, and use their author search (look in the blue drop down menu next to Basic Search) to curate a list of your articles. Unlike Scopus, you can't follow yourself as an author, but you can follow each of your individual publications. Click into the article record, look to your right and you'll see the "Create Citation Alert" next to a little blue bell. Need help? See the Web of Science Citation Alerts tutorial.

Monitor attention from Social Media

Harness the power of Google. Consider setting up a Google Alert based on the name of your research study or project. The results will be sent to you via email, so consider using their settings to determine the delivery time and to receive a digest version in one email.

Use free tools, like the Altmetric Bookmarklet. Consider installing the Almetric Bookmarklet in your browser for quick information regarding the attention your article has received in social media. The bookmarklet supports articles on PubMed and other articles that have a Digital Object Identifier (DOI). Need help? See the Altmetric Bookmarklet FAQ.

High Impact Factor Research

June 2016

Badal SS, Wang Y, Long J, Corcoran DL, Chang BH, Truong LD, **Kanwar YS,** Overbeek PA, Danesh FR. miR-93 regulates Msk2-mediated chromatin remodelling in diabetic nephropathy. *Nature Communications.* 2016;7:12076. http://www.ncbi.nlm.nih.gov/pubmed/27350436

Bhattacharyya S, Wang WX, Morales-Nebreda L, Feng G, Wu MH, Zhou XD, Lafyatis R, **Lee J, Hinchcliff M**, Feghali-Bostwick C, **Lakota K, Budinger GRS, Raparia K, Tamaki Z, Varga J.** Tenascin-C drives persistence of organ fibrosis. *Nature Communications.* 2016 Jun;7:14. http://www.ncbi.nlm.nih.gov/pubmed/27256716

Cai BS, **Thorp EB**, Doran AC, Subramanian M, Sansbury BE, Lin CS, Spite M, Fredman G, Tabas I. MerTK cleavage limits proresolving mediator biosynthesis and exacerbates tissue inflammation. *Proceedings of the National Academy of Sciences of the United States of America.* 2016 Jun;113(23):6526-6531. http://www.ncbi.nlm.nih.gov/pubmed/27199481

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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."

Calendar

Tuesday, August 16

TIME Lecture: Activating the Passive Learner–Using New Technologies to Create Interactive Learning Environments

Presented by David Salzman, MD, MEd, assistant professor of Emergency Medicine and Medical Education

Time: 4 p.m. to 5 p.m.

Location: Robert H Lurie Medical Research Center
Baldwin Auditorium
303 E. Superior

Contact: fame@northwestern.edu

More information

Thursday, August 18

The State of LGBT Health Symposium

Keynote lecture by Karen L. Parker, director, Sexual & Gender Minority Research Office of the National Institutes of Health, followed by a panel discussion and reception.

Time: 1 p.m. to 5 p.m.

Location: Arthur Rubloff Building, Aspen Hall
375 E. Chicago Avenue

Contact: Julia Dudek j-dudek@northwestern.edu

More information

Thursday, August 18

Chemistry of Life Processes Institute Core Expo

The expo features eight core facilities and three centers of excellence. Facility managers and staff will showcase their innovative biomedical expertise, research and services available to all researchers in greater Chicago. Learn how the centers and cores work together to advance potential therapeutics and diagnostics from the early stages of discovery through pre-clinical testing.

Time: 11 a.m. to 1 p.m.

Location: Ward Building
303 E. Chicago Avenue

Contact: Tiffany Leighton Ozmina
tiffany.ozmina@northwestern.edu

More information

NIH News

Trends in NIH's Model Organism Research Support

Staff from NIH's Office of Research Information Systems (ORIS) and Office of Portfolio Analysis (OPA) analyzed R01 applications from FY 2008 to FY 2015 and used text mining to investigate trends in NIH support for *Drosophila* and other model organism research. They began this research after an article in *Genetics* on NIH funding for model organism research involving *Drosophila* found that NIH support for *Drosophila*-based research is declining.

Overall, NIH's analysis found that award rates for model organization applications have been stable with respect to both the number of awards and amount of funding. According to NIH, *Drosophila* awards have dropped slightly. The data also shows *Xenopus* awards have dropped, while *C. elegans* and zebrafish awards increased, suggesting a shift in focus from *Xenopus* towards *C. elegans* and zebrafish research.

New Assignment Request Form

The latest NIH "All About Grants" podcast features Cathie Cooper, PhD, director of the Division of Receipt and Referral at NIH's Center for Scientific Review (CSR) on how applicants can influence the assignment of their application to a particular study section for peer review, or to a particular NIH Institute or Center for funding consideration.

Insider's Guide to NIH Peer Review for Applicants

A new video from CSR compiles insights from peer reviewers, study section chairs and NIH staff, to help guide new and established applicants in planning and writing a highly competitive NIH grant application.

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