



The LSUHSC School of Medicine electronic news

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Month: October 2017

[Department of Psychiatry: A Nationally Recognized Center for Disaster Behavioral Health](#)

[October 30, 2017](#) ~ [ginalaborde](#)

*Anthony Speier, Ph.D.
Associate Professor of Clinical Psychiatry*

It is a tradition and an expectation among Louisiana communities, healthcare agencies, social service providers, and state government that in times of need, the LSUHSC Department of Psychiatry will be there offering a helping hand. The Department of Psychiatry has consistently been a leader and innovator in disaster behavioral health and has provided essential consultation and services to the state since Hurricane Andrew tore through southeastern Louisiana in late August 1992.

In response to numerous hurricanes, floods, earthquakes, and other environmental and human caused disasters, the work of the Department of Psychiatry is known and appreciated throughout the United States and countries in Asia, South America, and Europe. The Department of Psychiatry is consistently available to identify gaps in interventions that may place survivors at psychological risk and are available to help design, develop and deliver services during all phases of response and recovery. Following Hurricane Katrina (2005) and the Gulf of Mexico Deepwater Horizon Oil spill (2010), psychiatry faculty provided leadership in the design of innovative approaches for the delivery of counseling services, and developed models of training for local providers using evidence-informed interventions. In addition, LSUHSC faculty members were available for consultation and stress reduction services for first responders and disaster survivors.

Work of the Department in the area of disaster behavioral health is an investment in clinical practice and scientific knowledge that is currently paying dividends for communities, the state, and the region. The Department of Psychiatry has recently been awarded a Substance Abuse and Mental Health Services Administration (SAMHSA) five-year grant through the National Child Traumatic Stress Network. The *Terrorism and Disaster Coalition for Child and Family Resilience* (TDC4CFR) is directed by Drs. Howard J. Osofsky, Principal Investigator and Dr. Joy D. Osofsky, Co-Principal Investigator (Department of Pediatrics). The Department is the only center funded through this initiative for the advancement of disaster behavioral health. LSUHSC is now the destination site for assisting not only Louisiana but the nation in developing sustainable approaches for building resilience among children and families impacted by disasters and acts of terrorism.

The TDC4CFR is charged with the responsibility of establishing Disaster Behavioral Health Coalitions strategically located across disaster and terrorism prone regions in the country. During the first year of coalition development across the states bordering the Gulf of Mexico (Alabama, Florida, Louisiana, Mississippi, and Texas), the TDC4CFR team has applied communication skills and organizational development strategies successfully. The strategy involves practitioners and survivor-recipients of services as co-partners in individual and community recovery.

Within the last month, once again Hurricanes Harvey and Irma have devastated Gulf Coast States. The LSUHSC Department of Psychiatry has been working with Texas and Florida to identify subject matter experts and seasoned disaster behavioral health professionals, educators, child welfare experts, along with emergency managers, and community stakeholders as participants in state-specific coalition activities and collectively as the regional gulf coast coalition.

The major emphasis has been recognizing that our collective knowledge and skills can facilitate the response and recovery process. Our TDC4CFR team is actively involved in sharing information and recovery efforts. The Gulf Coast Coalition is currently convening highly valued bi-weekly meetings with state officials and provider agencies to support recovery efforts in Texas and Florida.

TDC4CFR faculty recently provided interviews for National Public Radio, local WWL news, the Atlantic, Washington Post, Newsweek, and Education Review on the impact of disasters on children of different ages and ways to prepare children and families for the return to schools and homes after the hurricanes.

The world of disaster incidents is often unpredictable regarding intensity and degree of devastation to infrastructure as well as psychological and social damage to individuals and families. LSUHSC Psychiatry is engaged in building sustainable coalitions to mitigate the psychological impact of disasters and terrorist acts on people and communities and to foster resilience.

[\\$1.3 Million Grant for Research to Reduce Cardiac Injury](#)

[October 25, 2017](#) ~ [ginalaborde](#)

Adenopaint, LLC of Atlanta, GA, in conjunction with LSU Health New Orleans Cardiovascular Center of Excellence, has been awarded an SBIR Phase II grant in the amount of \$1.3 million over two years by the National Heart, Lung and Blood Institute. The funding will be used to study the company's Adenowire, a novel guidewire coated with a drug which is released during percutaneous coronary intervention (PCI) to prevent and reverse vascular and cardiac tissue injury during PCI and therefore improve outcomes in cardiovascular diseases.

The grant will directly fund \$735,000 to LSU Health New Orleans to study the efficacy of the Adenowire, a patented guidewire designed to produce immediate and continuous release of high dose adenosine locally to the injured tissue during coronary intervention procedures. Adenopaint's Adenowire technology, the world's first drug-eluting guidewire, could have a profound impact on millions of people suffering from coronary artery disease undergoing angioplasty each year. The newly funded research will investigate its effectiveness in reducing tissue injury in a model of acute myocardial infarction, or heart attack. A goal of this research is to move this promising new technology towards human clinical trials.

Adenopaint's CEO Mervyn Forman, MD, PhD and LSU Health New Orleans Cardiovascular Center of Excellence Director David Lefer, PhD, are the grant's principal investigators. They will work alongside LSU Health New Orleans Cardiovascular Center Translational Core Laboratory Director Traci Goodchild, PhD, to evaluate the effect of Adenowire to increase blood flow and reduce heart muscle damage in an experimental model of heart attack. There is dire need to develop a safe device to reduce heart muscle damage and prevent heart failure in patients with acute heart attacks.

While at an early stage of overall development, the Adenowire is likely to provide a substantial impact in the treatment of tissue perfusion injury. A guidewire containing covalently bonded adenosine for controlled local delivery is innovative and if these studies are successful, likelihood of commercialization is high.

"This approach could potentially effect more than 1 million people worldwide yearly with better outcomes following acute myocardial infarction," said Dr. David Lefer, Professor of Pharmacology and Director of the Cardiovascular Center of Excellence at LSU Health New Orleans School of Medicine.

[Dr. Jawed Alam Appointed New Executive Director, Office of Research Services](#)

[October 14, 2017](#) ~ [ginalaborde](#)



LSUHSC welcomes Dr. Jawed Alam to the position of Executive Director, Office of Research Services. Dr. Alam was born in India and immigrated to the United States at an early age. He earned his Bachelor of Science degree from Clemson University and his Doctor of Philosophy from Purdue University, both in the field of Biochemistry. More recently, Dr. Alam earned a Masters of Business Administration from the University of New Orleans.

Dr. Alam completed postdoctoral fellowships at both North Carolina State University and the Louisiana State University Health Sciences Center—New Orleans. In 1989 Alam joined the Laboratory of Molecular Genetics at Ochsner Clinic Foundation as a Staff Scientist, becoming Co-Director of the Laboratory in 1998. During this period, his research focused primarily on the adaptive and maladaptive cellular and molecular responses to oxidative stress, a condition that is implicated in multiple human pathologies including cancer, cardiovascular disease, and neurological disorders such as Alzheimer's Disease.

At Ochsner Dr. Alam also held multiple administrative roles, culminating in the Interim Vice-President for Research and the Deputy Head of Research for the Ochsner Clinical School of the University of Queensland. He currently holds an appointment as an Adjunct Associate Professor of Biochemistry and

Molecular Biology at LSUHSC. Additionally, Dr. Alam has had a long-term interest in promoting science education at the K-12 level. He is involved in several programs designed to provide elementary and secondary school students with opportunities to learn about medicine, science, and research in a fun and interactive way. The ultimate goal of these programs is to spark students' interest in these fields as potential education and career pathways.

The LSUHSC Office of Research Services looks forward to expanding important research and development initiatives under Dr. Alam's leadership in the coming years. Please join me in welcoming Dr. Alam to the team!

[Drs. Cacky Hebert, Angela McLean, and Taniya DeSilva Join the Office of Undergraduate Medical Education](#)

[October 14, 2017](#) ~ [ginalaborde](#)

Over the past 6 months, new part-time curriculum co-directors have been added to the Office of Undergraduate Medical Education. As previously reported in *The Pulse*, Dr. Joy Sturtevant and Dr. Andrew Hollenbach accepted part-time positions as Basic Science Curriculum Co-Directors. They will serve as liaisons between the Office of Undergraduate Medical Education and individual courses to support to course directors, ensure compliance with accreditation standards, and facilitate continued integration of basic science material.

Dr. Catherine (Cacky) Hebert, Dr. Angela McLean, and Dr. Taniya De Silva joined the Office as Clinical Science Curriculum Co-Directors. They will serve as liaisons between the Office of Undergraduate Medical Education and individual clerkships to provide support to clerkship directors, ensure compliance with accreditation standards, enhance the teaching and assessment of clinical skills, and develop additional uses for simulation in teaching and assessment. All five of these faculty members have been recognized as excellent educators. They have worked on curriculum renewal for several years and are very knowledgeable about the curriculum goals and educational program objectives that directed the recent revision.



Dr. Hebert, an Associate Professor in the Department of Internal Medicine, has been the course director for the second year clinical skills courses for many years, including the recently developed Clinical Skills Integration 200 and Clerkship Preparation courses. She is passionate about teaching physical diagnosis and the fundamentals of clinical medicine. She has also served as the associate program director for the internal medicine residency since 2008.



Dr. McLean, an Associate Professor in the Department of Internal Medicine, served for many years as the Medical Director of Student Health Services and is a preceptor in the continuity clinic for internal medicine residents. She is also the Director of Student Development in the Office of Diversity and Community Engagement and in this capacity she has served as the liaison between that office and the Office of Undergraduate Medical Education to enhance our teaching of cultural competency



Dr. De Silva, an Associate Professor in the Department of Internal Medicine, section of Endocrinology, is the section head of Endocrinology and the fellowship director for Endocrinology. She is the course co-director for the second year course Diseases and Therapy of the Endocrine/Reproductive Systems.

[\\$1.4 Million Grant To Fund Underrepresented Minorities Educational Pipeline](#)

[October 14, 2017 ~ ginalaborde](#)

Leslie Capo

Director of Information Service

The National Institute of General Medical Sciences (NIGMS) has awarded LSU Health New Orleans a \$1.4 million grant over five years to prepare individuals from backgrounds underrepresented in the biomedical sciences to earn either a PhD or MD/PhD degree. The grant was awarded through the Postbaccalaureate Research Education Program (PREP), and LSU Health New Orleans is the only Louisiana university, and one of only three in the Gulf Coast region, to successfully compete for this type of grant.

According to the National Institutes of Health, PREP provides support for participants to work as apprentice scientists in a mentor's laboratory. This program is expected to strengthen the research skills and academic competitiveness of participants for pursuit of a PhD degree in the biomedical sciences after completion of the one-year program. Grants are made to research-intensive institutions to support research experiences and courses for skills development.

“We aim to enhance the diversity of the biomedical research workforce by preparing PREP Scholars for the rigors and challenges of a biomedical doctoral degree program so that they can successfully obtain a PhD degree or MD/PhD degree and contribute their expertise to the biomedical scientific community,” notes Principal Investigator and PREP Director Lisa Harrison-Bernard, PhD, Associate Professor of Physiology.

LSU Health New Orleans will provide PREP participants with hands-on exposure to medical research, advanced courses and workshops to develop scholarly potential to prepare them for graduate school admissions, successful degree completion and careers in biomedical research.

The program will be executed by a strong leadership team, which also includes Co-Directors Allison Augustus-Wallace, PhD, and Fern Tsien, PhD; Program Coordinator Flavia Souza-Smith, PhD; and Program Administrator: Betsy Giaimo. Other keys to the program's success include 55 dedicated faculty research mentors, the institutional advisory council, external advisory council, scholar recruitment contacts at nearby universities, and external consultants.

LSU Health New Orleans' proposal received recognition for “the highly qualified leadership team and advisory board, a large pool of excellent research mentors, and a well-conceived program that provides scholars with intensive research experiences and graduate record examination preparation, comprehensive professional skills development, and mentoring, and the high likelihood that the proposed PREP would have a significant impact on the numbers of underrepresented PhD biomedical graduates, both from LSU Health New Orleans and nationally.”

[SOM Grants and Contracts](#)

[October 14, 2017](#) ~ [ginalaborde](#)

Congratulations to the following researchers for obtaining extramural funding from federal, state, and/or independent sources between July 1 – August 31, 2017!

NOTE: The Office of the Dean provided the information below to The Pulse. If there is any information that was inadvertently omitted, please contact the editor (aholle@lsuhsc.edu) so a correction can be printed in the next issue of The Pulse.

National Institutes of Health R01:

- Carmen Canavier, Ph.D. (Department of Cell Biology and Anatomy)

Foundations and National Associations:

- Hamid Boulares, Ph.D. (Department of Pharmacology and Experimental Therapeutics)
- American Association of Immunologists
- Benjamin Springgate, M.D. (Department of Internal Medicine)
- University of California, Los Angeles
- National Academies, Institute of Medicine
- Jeffrey Wang, M.D., Ph.D. candidate
- American Heart Association

Pharmaceutical, and Company Grants:

- Clifford Crutcher, M.D. (Department of Neurosurgery)
- Stryker Spine – National Office
- Matthew Lammi, M.D. (Pulmonary/Critical Care and Allergy/Immunology)
- Pharmaceuticals Research Associates, Inc.
- Frank Lau, M.D. (Department of Surgery)
- MiMedx Group, Inc.
- David Lefer, Ph.D. (Director, Cardiovascular Center of Excellence)
- Exscien Corp.
- Paul LeLorier, M.D. (Department of Internal Medicine)

- Biotronik
- Adam Podet, M.D. (Department of Neurosurgery)
- Globus Medical

[Reducing Disparities In Cancer Precision Medicine](#)

[October 14, 2017](#) ~ [ginalaborde](#)

Leslie Capo
Director of Information

The National Cancer Institute has awarded LSU Health New Orleans and Moffitt Comprehensive Cancer Center in Tampa a \$2 million grant over four years to study cancer precision medicine with an emphasis on underserved minorities and to train students and junior scientists in cancer health disparities-based precision medicine research. The funding will be shared equally between the two institutions.

“Louisiana cancer mortality is among the worst in the nation, and many of these cancers are diagnosed in understudied, underserved patients,” notes Lucio Miele, MD, PhD, Director of the Precision Medicine Program at LSU Health New Orleans School of Medicine and co-principle investigator. “Precision medicine is making tremendous advances in tailoring cancer treatment and prevention measures to specific molecular cancer subtypes. However, the patients who are most affected by cancer are often the ones with the least access to precision medicine studies. This leaves a huge gap in our understanding of how to plan cancer prevention and care, and risks worsening existing health disparities.”

The LSU Health Research team also includes Drs. Paula Gregory, Fern Tsien, Jovanny Zabaleta and Arnold Zea.

Adds Dr. Miele, who is also a professor and head of genetics at LSU Health New Orleans, “There is an acute need for investigators who will carry the torch into the future, investigate cancer health disparities and share their results with stakeholder communities. This partnership’s goal is to address both these needs, by carrying on ground-breaking research on patient-derived cancers, as opposed to laboratory models, and by training students and junior investigators in how to rigorously and ethically conduct such research, as well as how to communicate its results to the community.”

Dr. Cathy Meade is the co-principle investigator at Moffitt, and her team includes Drs. Teresita Antonia, Doug Cress, Clement Gwede and Gwendolyn Quinn.

[\\$3.7 Million Grant to Fund Research on Novel Drug Targeting Heart Diseases](#)

[October 14, 2017](#) ~ [ginalaborde](#)

The Exscien Corporation of Louisville, KY, in conjunction with LSU Health New Orleans Cardiovascular Center of Excellence, has been awarded an SBIR Fast-Track grant in the amount of \$3.7 million over three years by the National Heart, Lung and Blood Institute. The funding will be used to study the company’s first in a new class of drugs that repairs DNA damage to reduce cardiac tissue injury and improve outcomes in cardiovascular diseases.

The grant will directly fund \$1,441,643 to LSU Health New Orleans to study the potential efficacy of Exscien1-III, a patented three-part fusion protein designed to harness the body's own mechanisms to control and repair disease pathways. The drug has demonstrated significant cardioprotective actions in rodent models of acute myocardial infarction, or heart attack, and the newly funded research will investigate its effectiveness in a model of heart failure. A goal of this research is to move this promising new drug toward human clinical trials.

Exscien CEO Dr. Ker Ferguson and Chief Scientific Officer Dr. Glenn Wilson, and LSU Health New Orleans Cardiovascular Center of Excellence Director David J. Lefer, PhD, are the grant's principal investigators. They will work alongside LSU Health New Orleans Cardiovascular Center Translational Core Laboratory Director Traci Goodchild, PhD, to develop a pathway for Exscien1-III to restore fundamental cellular metabolic function and disrupt a root pathway for cardiac disease progression and heart failure.

While at an early stage of overall development, Exscien's proprietary protein leads the way to finding a means to mitigate and repair the underlying tissue damage suffered from these devastating diseases. "Exscien is able to deliver microscopic repair enzymes directly to the root of the damage and thus goes beyond the current standard of care of simply treating downstream symptoms," says Dr. Ker Ferguson, Exscien CEO. "The therapy offers substantial commercial potential and has attracted large 'pharma' interest to date."

"This approach could potentially effect more than 20 million people worldwide with progressive heart failure," notes Dr. David Lefer, Professor of Pharmacology and Director of the Cardiovascular Center of Excellence at LSU Health New Orleans School of Medicine.

[Funding Awarded to Study Cause of Alcohol Abuse to PTSD](#)

[October 14, 2017](#) ~ [ginalaborde](#)

Leslie Capo
Director of Information

Researchers at the SOM have been awarded a \$1.85 million grant over five years by the National Institute on Alcohol Abuse and Alcoholism to study the brain changes that may underlie excessive alcohol drinking associated with post-traumatic stress disorder. The researchers will use male and female rodents to investigate how individual differences in the stress response of specific brain circuits to traumatic stress affects the escalation of alcohol drinking after stress. The results of these studies could lead to treatments to improve mental health in a vulnerable population.

"Men and women with post-traumatic stress disorder (PTSD) are more likely to develop alcohol use disorder than the general population," notes Principal Investigator Nicholas Gilpin, PhD, Associate Professor of Physiology, Associate Director of the Alcohol and Drug Abuse Center of Excellence at LSU Health New Orleans. "Alcohol Use Disorder is the most commonly co-occurring mental health disorder in people with PTSD. These conditions, separately and combined, affect millions of American, cause millions of deaths worldwide and cost society billions of dollars. The underlying cause for excessive alcohol drinking by individuals with PTSD is not understood."

The research will use diverse neuroscience techniques combined with brain and behavior analyses to systematically test the effect of traumatic stress on escalation of alcohol drinking and to identify the neurobiological processes involved. Other members of the research team include Dr. Jeffrey Tasker,

Tulane University Professor of Neuroscience, and Dr. Scott Edwards, Assistant Professor of Physiology and Neuroscience at LSU Health New Orleans School of Medicine.

[Noted Research for Treating Obesity and Diabetes](#)

[October 14, 2017](#) ~ [ginalaborde](#)



Leslie Capo
Director of Information

Research led by Suresh Alahari, PhD, Fred Brazda Professor of Biochemistry and Molecular Biology at LSU Health New Orleans School of Medicine, has demonstrated the potential of a protein to treat or prevent metabolic diseases including obesity and diabetes. The findings are published online in the *Journal of Biological Chemistry*.

Nischarin is a novel protein discovered by the Alahari lab. The research team demonstrated that it functions as a molecular scaffold that holds and interacts with several protein partners in a number of biological processes. The lab's earlier research found that Nischarin acts as a tumor suppressor that may inhibit the spread, or metastasis, of breast and other cancers.

The current research project, conducted in a knockout mouse model, found that Nischarin interacts with and controls the activity of a gene called AMPK. AMPK regulates metabolic stability. The research team discovered that Nischarin binds to AMPK and inhibits its activity. In Nischarin-deleted mice, the researchers found decreased activation of genes that make glucose. The study showed that Nischarin also interacts with a gene regulating glucose uptake. Blood glucose levels were lower in the knockout mice, with improved glucose and insulin tolerance. As well, the researchers showed that Nischarin mutation inhibits several genes involved in fat metabolism and the accumulation of fat in the liver. The knockout mice displayed increased energy expenditure despite their smaller growth and appetite suppression leading to decreased food intake and weight reduction.

“These studies demonstrate the potential of Nischarin as a regulator of metabolic diseases and suggest suppression of Nischarin function may be a valuable approach in the quest to cure such diseases as diabetes and obesity,” notes Dr. Alahari.

According to the National Health and Nutrition Examination Survey (NHANES), 2013-2014, more than 2 in 3 US adults (70.2 percent) were considered to be overweight or obese. The American Diabetes Association says that in 2015, 30.3 million Americans, or 9.4% of the population, had diabetes.