

Pennington Biomedical Research Center is one of the world leaders in obesity, diabetes and nutrition research. We put science to work for a healthier Louisiana, country and global community. A campus of LSU located in Baton Rouge, LA, our specialized research team and facilities are dedicated to uncovering the triggers of chronic diseases and improving health across the lifespan. Our discoveries have helped to change the way America eats, exercises and ages; advancing treatments for diseases from obesity and diabetes to Alzheimer's and dementia.

TRANSLATING SCIENCE INTO SOLUTIONS

- We have been involved in the development of all approved obesity medications on the market today, as well as key diabetes medications.
- We discovered a new pathway that controls how our bodies respond to a diet that's low in protein. This finding could improve treatments for obesity and diabetes.
- We discovered a mechanism that leads to an inflammatory response in obesity.
- . We identified regions of the human genome that predicts the effect of aerobic exercise on an individual's health.
- We developed a novel compound that targets and attacks only cancer cells, leaving normal cells unharmed. This compound is currently in clinical trials as an anti-cancer therapeutic and is the basis for establishing Esperance, Inc., a Pennington Biomedical originated startup company.



WE LEVERAGE INVESTMENTS FOR DISCOVERY

- Our postdoctoral training program has been voted among the top 10 in the nation in The Scientist's 2012 listings of Best Places to Work for Postdocs. Pennington
 Biomedical provides hands-on laboratory research training to scores of Louisiana undergraduate, graduate and medical students each year. We are training the next
 generation of biomedical researchers and academic physicians for service to Louisiana.
- Our scientists are among the most sought after and cited researchers in the world. Over the last 20 years, more than 4,600 publications have been attributed to Pennington Biomedical scientists.
- Our publications have been cited in the scientific literature by other authors and experts more than 116,000 times and have garnered an Institutional H-index = 138.
- Our current top 10 cited scientist average a citation rate of 26,400 and an H-index =76.7.

WE COLLABORATE WITH PARTNERS ACROSS THE STATE AND AROUND THE WORLD

- Our basic scientists collaborate with nearly 300 institutions or companies in over 20 countries.
- We lead a \$20 million NIH IDEA-CTR grant, the Louisiana Clinical & Translational Science (LA CaTS) Center's in
 partnership with LSU Health Sciences Center New Orleans, Tulane University Health Sciences Center, Xavier
 University of Louisiana, LSU Health Sciences Center Shreveport, LSU, and the Research Institute for Children in
 New Orleans. Together, we represent a unified, comprehensive approach to create a collaborative infrastructure
 for clinical and translational research both within and across participating institutions.
- We are home to five nationally-acclaimed, NIH federally-funded collaborative centers and consortiums including: Center for Research on Botanicals and Metabolic Syndrome (BRC), Center of Biomedical Research Excellence (COBRE), Nutritional Obesity Research Center (NORC), Institute for Dementia Research & Prevention (IDRP), Louisiana Clinical & Translational Science (LA CaTS) Center



PROMOTING OPTIMAL AGING

- Our Institute for Dementia Research and Prevention is an Alzheimer's Disease Cooperative Study Site an innovative partnership with the
 National Institutes of Health's National Institute on Aging. This a prestigious designation makes ours the only such site in a tri-state area.
 We are home to one of the largest brain aging studies in the country with more than 2,000 Louisiana participants helping identify triggers
 and advance treatments for dementia.
- Our dementia study is one of the largest aging studies in the U.S., and our research has been recognized by the Alzheimer's Disease
 Cooperative Study Group (ADCS) the largest Alzheimer's therapeutic research consortium in the U.S. making Pennington Biomedical the only ADCS-approved site in a tri-state area.



IMPACTING CHILDREN & FAMILY HEALTH

OPTIMIZING MILITARY PERFORMANCE

- Our Translational Research Clinic for Children is dedicated to the study of pediatric obesity and diabetes. Since its opening in 2014, our researchers have been exploring innovative methods - such as "exergaming" (or using video games for exercise) - for encouraging children towards a healthy lifestyle.
- Our Childhood Obesity Treatment Toolkit provides integrative strategies for reducing and treating obesity in children across Louisiana.
- The Louisiana Trial to Reduce Obesity in Primary Care project is looking at the comparative effectiveness of obesity treatment options for underserved populations delivered in primary care settings. The results of the study are anticipated to have a direct impact on improving healthcare delivery and outcomes.
- Our Maternal Infant Phenotyping Core includes a first of its kind whole-body calorimeter that helps us research obesity in utero and understand health early in the lifespan.
- Our clinical trials and research studies have engaged nearly 18,000 individuals from every parish in Louisiana in an effort to improve the health of our state.
- We played a key role in designing the NIH DASH diet voted the #1 diet in America for the fifth year in a row by U.S. News & World Report.

- We are a leader in nutrition research for our U.S. military Soldiers, retirees and their family members.
- We were proud to be part of the team that developed the First Strike® ration which feeds our U.S. military Soldiers in the field.
- We designed the Army H.E.A.L.T.H. online tool as a primary online resource for proper nutrition and physical fitness information needed to ensure personnel readiness and increase warfighter performance.
- We have aided in the development and testing of new and improved field and garrison rations for America's fighting forces. The U.S. Department of Defense is one of Pennington Biomedical's longest standing funders (\$74M since inception), making our center one of the top providers of nutritional research for the U.S. Military.



BY THE NUMBERS

730,550 sq ft of research space

- 450+ team of faculty, adjunct faculty, postdoctoral researchers, research associates, technicians, support and administrative personnel
 - 40 laboratories
 - 13 specialized core service facilities:
 - · Cell Biology, Imaging and Culture
 - Clinical Chemistry
 - Clinical Trials (outpatient, inpatient, pharmacy and intervention)
 - Comparative Biology & Animal Metabolism and **Behavior**
 - **Database Management**

- Dietary Assessment and Food Analysis
- **Exercise Testing**
- Genomics
- **Imaging**
- Mass Spectrometry
- Metabolic Kitchen
- Recruiting
- Transgenics

SERVICES AND FACILITIES

- Outpatient clinic
- Imaging center
- Outpatient examination and interview rooms
- 10 inpatient rooms (20 beds)
- Magnetic resonance spectroscopy
- Metabolic kitchen
- Metabolic procedure rooms
- 2 whole-room indirect calorimeters
- Dual energy X-ray absorptiometry
- Ultrasound imaging
- Air displacement plethysmography

- Underwater weighing unit
- 4 metabolic chambers
- Infant metabolic chamber
- Pediatric clinic



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