Tulane BRAIN INSTITUTE September 2017 Newsletter





EDUCATION





BRAIN INSTIT

NEW ORLEAN



Creating a new era of discovery, learning, and public influence in the brain sciences at Tulane.



Dr. Jill Daniel Photo Paula Burch-Celentand

MESSAGE FROM THE DIRECTOR

It is my pleasure to present the inaugural issue of the Tulane Brain Institute Newsletter. In these pages we highlight the people, events, initiatives, and accomplishments that have shaped our first year.

Much has happened since the Ceremonial Launch of the Brain Institute in October of 2016. On the uptown campus, construction has begun on our new administrative and research facilities in the Donna and Paul Flower Hall for Research and Innovation. On the downtown campus, we recently opened new Brain Institute research and meeting facilities in the J. Bennett Johnston Building. We are investing in research as we develop new multidisciplinary neuroscience research groups built around current and emerging research strengths of our faculty. Generous gifts to the Brain Institute have supported a new endowed professorship in Brain Science, faculty seed grants to foster new interdisciplinary research, and a new program in which Neuroscience undergraduate students are trained as "Stroke Companions" to patients in Tulane Hospital. Sponsored research of our faculty is at a record high and the accomplishments of our faculty and students have been recognized across Tulane and the nation. To cap the year off, we had one of our biggest graduating classes ever with over 120 students receiving degrees in Neuroscience at the May 2017 Tulane graduation.

I invite you to take a few minutes to peruse our newsletter and read about these and other highlights of the past year. If you have questions or want to learn more, please get in touch (jmdaniel@tulane.edu). I would love to share with you in detail our vision for the Brain Institute.

The future of Neuroscience at Tulane is bright. We look forward to continued growth and success of the Tulane Brain Institute in the new academic year!

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Jill M. Daniel Professor, Psychology and Neuroscience Director, Tulane Brain Institute

ABOUT THE TULANE BRAIN INSTITUTE

The 45 members of the Brain Institute faculty represent the Downtown, Uptown, and Northshore campuses; the Schools of Medicine, Science & Engineering, Liberal Arts, and Public Health & Tropical Medicine; and 16 different Departments.

Current federal and private funding of Brain Institute faculty is approximately \$60 million.

Brain Institute faculty members published 485 papers in the last three years and sit on the editorial boards of over 60 scientific journals.

Brain Institute faculty members have received numerous teaching and mentoring awards including four President's Awards for Excellence in Teaching, the highest teaching award that Tulane bestows.

The Brain Institute oversees over 400 students enrolled in interdisciplinary undergraduate and graduate studies in Neuroscience. The Neuroscience PhD Program, established in 1986, was the first interdisciplinary graduate program at Tulane.

The Neuroscience Undergraduate Major, established in 2000, has grown into one of the largest majors at Tulane and was recently recognized as among the top undergraduate neuroscience programs in the country by Study.com.

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The Neuroscience Master's Program, established in 2002, offers the M.S. degree in Neuroscience through an intensive one-year program of study.

Brain Institute faculty members, postdoctoral fellows, and graduate and undergraduate students support active programs in K-12 outreach to bring neuroscience to New Orleans schools and promote community engagement with the goal of promoting brain health throughout the region.

TULANE LAUNCHES THE BRAIN INSTITUTE OCTOBER 7, 2016

Tulane formally launched its Brian Institute in a day-long celebration that included an alumni symposium and luncheon, a keynote lecture by Dr. Fred Gage of the Salk Institute, and a ceremonial launch followed by a celebratory reception.

Marta and Bill Marko (E '81, E *83) provided a lead gift to the Brain Institute, which has set a fundraising goal of \$50 million. "We hope our contributions can help create additional momentum for the initiative and that it provides the physical space and sense of place for the initiatives, but more importantly we hope our gifts propel all those working as part of the Brain Institute to be role models for interdisciplinary cooperation in order to achieve breakthroughs that could not be accomplished in silos," Bill Marko said.



Tulane President Michael Fitts addresses attendees at the Launch of the Brain Institute held at the Flower Hall for Research and Innovation, future location of uptown facilities of the Brain Institute.

"The Tulane Brain Institute solidifies and strengthens our interdisciplinary tradition through an invaluable matrix of researchers from all across the university," Tulane President Mike Fitts said. "Tulane owes much gratitude to Bill and Marta Marko for their generous support of the Brain Institute."

Attendees included current students, parents, faculty, administration, alumni, and other supporters of the Brain Institute.



Lead donors Marta and Bill Marko (center) honored at Brain Institute Launch Ceremony by Vice President for Research Laura Levy as Provost Robin Forman and President Michael Fitts look on.



Celebratory reception held after Launch Ceremony at 2 Audubon Place. Photos for this article courtesy of Paula Burch-Celentano

ALUMNI SYMPOSIUM

The 2016 Tulane Neuroscience Alumni Symposium held in conjunction with the October Launch featured five outstanding Tulane alumni.

Anthony Ricci, PhD '92; Edward C. and Amy H. Sewall Professor of Otolaryngology and Director of the Neuroscience Training Program, Stanford School of Medicine

Mario Romero-Ortega, PhD '97; Associate Professor of Bioengineering and Brain & Behavioral Sciences, University of Texas at Dallas

Scott Plotkin, MD, PhD '98; Associate Professor of Neurology, Massachusetts General Hospital, Harvard Medical School

Abby L. Spencer, MD, MS, BS '98; Associate Professor of Medicine and Director of Internal Medicine Residency Program, Cleveland Clinic

Johannes Bohacek, PhD '09; Assistant Professor of Molecular & Behavioral Neuroscience, ETH Zurich



Dr. Abby Spencer speaking at the Alumni Symposium. As an undergraduate at Tulane, Dr. Spencer designed her own major in Behavioral Neuroscience that later served as a prototype for the Neuroscience major established in 2000.

NEW BRAIN INSTITUTE FACILITIES SPAN THE UPTOWN AND DOWNTOWN CAMPUSES

The Brain Institute is building a physical presence on both the uptown and downtown campuses.

The center of activity uptown will be in soon-to-completed facilities at the state-of-the-art Donna and Paul Flower Hall for Research and Innovation. The new space will include the Brain Institute administrative offices, a conference and meeting room, faculty offices, the Memory and Cognition Research Lab Cluster, and the Brain Institute Cell and Tissue Imaging Core Lab. These infrastructure improvements are generously supported by Marta and Bill (E '81, E *83) Marko and Donna (P '98) and Paul (E *75, P '98) Flower.

On the downtown campus, new Brain Institute facilities have recently opened in the newly renovated J. Bennett Johnston Building. The new space includes labs for research involving human subjects as well as conference and meeting rooms for faculty and student use.



New Brain Institute facilities have opened in the J. Bennett Johnston Building on the downtown campus.



The Brain Institute will soon occupy the 2nd floor of the Donna and Paul Flower Hall for Research and Innovation on the uptown campus.



Dr. Gary P. Dohanich

ALUMNUS ENDOWS THE GARY P. DOHANICH **PROFESSORSHIP IN BRAIN SCIENCE**

Some professors have the unique ability to connect with students in a way that motivates them to search for knowledge. For Wayne Teetsel, a 1987 psychology major and 1990 masters in business administration graduate, that professor was Gary Dohanich, Professor of Psychology and Neuroscience, Co-founder of the Undergraduate and Master's Programs in Neuroscience, and current Director of the Neuroscience PhD Program.

Dohanich helped Teetsel view the world in a different way and reprioritize his life and focus on his future. When looking back on the moments throughout Teetsel's life that helped build his pyramid of success, "Gary, was at the base of the pyramid".

Teetsel has endowed a professorship in Dohanich's honor, the Gary P. Dohanich Professorship in Brain Science. The professorship is housed in the Brain Institute, enhancing our ability to recruit and retain top neuroscientists to Tulane. Plans are to fill the professorship in the upcoming year.

"A good educator does more than just teach," says Teetsel. "They inspire. That's what Gary does. He inspires. I've taken that desire to learn into my everyday life. And I'm so grateful for that."

NEUROSCIENCE UNDERGRADUATE STUDENTS SERVE AS STROKE COMPANIONS IN NEW BRAIN INSTITUTE PROGRAM

Imagine not remembering how to dial a phone, not being able to move an entire side of your body, or knowing what something is but not being able to speak the word that describes it. These are all symptoms individuals experience when recovering from a stroke. As part of the Tulane Brain Institute's growing community outreach and engagement, a new stroke companion program was created to provide support and activities to individuals hospitalized in Tulane's Neuro-stroke unit.

In partnership with the Tulane Arts in Medicine program, carefully trained students engage in a variety of activities with hospitalized patients, providing companionship and support as individuals learn old skills all over again. This one-of-a-kind program is supported by a generous donation from Mathilde Cochran in memory of her husband and in appreciation of the exemplary care he received at Tulane



Stroke companions Megan Haney and Cade Herman prepare for an activity session.

following a stroke from Dr. Sheryl Martin-Schild, a graduate of both the Tulane Neuroscience Program (PhD, '99) and Tulane School of Medicine (MD, '01).

"This program not only adds to the exceptional care at Tulane Hospital but also provides a unique opportunity

for our neuroscience students to give back to the community while experiencing first-hand the power of the brain," says director of the program Dr. Stacy Drury, Remigio Gonzalez MD Professor of Child Psychiatry, Vice Chair of Research in the Department of Pediatrics, and Associate Director of the Brain Institute.

UNDERGRADUATES WORK IN BRAIN INSTITUTE FACULTY LABS IN SUMMER PROGRAM

Each summer, 10 - 15 neuroscience undergraduate students participate in the Tulane Undergraduate Research in Neuroscience or TURN summer program. The Brain Institute provides stipends to participants to allow them to spend 9 weeks working full-time in labs of Tulane neuroscientists. The goal of TURN is to immerse students in the research process and expose them to the rewards and challenges of scientific inquiry.

In addition to working on their research, students learn to present and discuss their data at weekly meetings attended by other participants and faculty mentors. The summer program culminates in a scientific poster session during which students present their summer research projects to the Tulane neuroscience community.

Matt Coleman, a 2017 TURN participant, spent the summer working in the Learning and Brain Development Lab of Dr. Julie Markant, Assistant Professor of Psychology. "Full-time immersion in research this summer has given me incredible first-hand experience into the daily life of a neuroscientist," Coleman says. "I now feel more confident in my career pursuits and significantly more prepared for graduate school." Coleman reports that the data he collected in the



Ryan Parmoon, a TURN participant, discusses research she conducted in the lab of Tulane neuroscientist Dr. Andrei Derbenev during the final poster session held in the Lavin-Bernick Center.

Markant lab will soon be submitted for publication.

"Our summer research students gain valuable experience conducting empirical research and giving oral and poster presentations. In addition, they are part of a cohort that shares frustrations, concerns, and joys that come from doing research, developing their professional skills, and learning about opportunities to enhance their careers," says Dr. Beth Wee, Director of the TURN Program and Director of Neuroscience Undergraduate and Master's Programs.

TURN completed its tenth successful session this past summer.

CROSSING BOUNDARIES IN QUEST TO UNDERSTAND THE BRAIN AND BRAIN DISEASE

Research at the Tulane Brain Institute is centered around four research themes built on identified strengths that are advanced by transdisciplinary teams made up of Brain Institute faculty, postdoctoral fellows, and students from across the University.

Themes are supported through investment in infrastructure and programmatic initiatives with the goal of developing physical and intellectual clusters of research excellence in the following four areas.



Memory and Cognition

Brain Institute scientists are exploring brain mechanisms that support memory and cognition. Researchers are examining how memories are made and stored in the brain and how these processes change during normal and pathological aging. Ongoing research into neural processes underlying typical and atypical cognitive development and function has implications for understanding autism, attention deficit hyperactivity disorder, and schizophrenia.

Dr. Ricardo Mostany, Assistant Professor of Pharmacology in the School of Medicine and Tulane's 2016 Oliver Fund Scholar, is a member of the *Memory and Cognition Research Group*. Dr. Mostany is working to understand what happens inside our brains during aging to weaken our ability to form new memories. He has found that an aged mouse brain is not able to maintain strong connections between brain cells within neural circuits for as long as a younger mouse brain can, impairing the formation and endurance of new memories. Mostany says, "If we are able to identify the mechanism responsible for this impairment, we would be able to design therapeutic approaches to delay the onset of the decline in brain functionalities associated with healthy aging."



Two-photon excitation time-lapse imaging of dendritic spines, thought to be the anatomical substrate of memory storage, acquired repeatedly from the same cortical neuron. Stable (yellow arrowheads), gained (green), and lost dendritic spines (red) are depicted. Mostany Lab.



Neurodegenerative Disease, Neural Injury and Repair

Brain Institute scientists are conducting research on neurodegenerative disease and neural injury resulting from trauma or stroke. Researchers are examining mechanisms underlying age-related dementias including Alzheimer's disease. Experiments are underway testing the use of adult stem cells as potential avenues for treatment of neurodegenerative diseases such as multiple sclerosis. The work of Tulane neuroscientists is leading to new discoveries regarding

risk factors and treatments of stroke.

Dr. Anne Skaja Robinson, the Catherine and Henry Boh Professor of Engineering and Chair of Chemical and Biomolecular Engineering in the School of Science and Engineering, is a member of the *Neurodegenerative Disease, Neural Injury and Repair Research Group*. Dr. Robinson studies the tau protein that is found in neurons throughout the brain. Tau protein is found in healthy brains, but can develop into an insoluble form that accumulates in neurofibrillary tangles. These "tau tangles" are prominent features of several neurodegenerative diseases, including Alzheimer's disease, that are associated with memory impairments and dementia. Robinson says, "The goal of our work is to understand the molecular and cellular processes that lead to disease-related forms of tau protein in order to identify the best targets for therapeutic intervention in the treatment and prevention of dementias." *Mostany Photo Ryan Rivet, Robinson Photo Paula Burch-Celentano*



The membrane-enclosed vesicles visible in this mammalian cell (visualized by yellow-labeled tau) are one cellular mechanism hypothesized to enable dysfunctional tau protein to be packaged and transferred cell-to-cell, and ultimately from one brain area to another. Robinson Lab.

NEURODEGENERATIVE DISEASE, NEURAL INJURY AND REPAIR

HORMONE-BRAIN INTERACTIONS

BRAIN-BODY HEALTH

MEMORY AND COGNITION



Brain-Body Health

Brain Institute scientists are exploring the role of the brain in health and disease. Scientists are examining how the nervous system is involved in the regulation of the body's glucose levels and are investigating the role for the brain in the development and treatment of hypertension and obesity. Tulane neuroscientists have developed a new drug to treat pain that may be a safer, non-addictive alternative to current pain medications.

Dr. Andrea Zsombok, Associate Professor of Physiology in the School of Medicine, is a member of the **Brain-Body Health Research Group**. Dr. Zsombok's research focuses on the role of the brain in the regulation of glucose levels in the body. She is investigating the role of neurons in the brain in governing the storage and release of glucose by the liver. Her work has shown that this regulation is altered under diabetic conditions. Identification of the key elements of the brain-liver connection is an essential step in developing new targets and strategies for glucose management in people with diabetes. "The brain has so much potential and so many things we have no idea about," says Zsombok. "It's amazing."



Retrograde viral labeling was used to identify liver-related (green) and stomach-related (red) neurons in the brain. Zsombok Lab.



Hormone-Brain Interactions

Brain Institute scientists are exploring the impact of hormones on the brain. Research investigating stress and the effects of stress hormones on the brain has implications for understanding depression, anxiety disorders, and posttraumatic stress. The study of how hormones such as estrogens and androgens impact the brain across the lifespan may lead to the understanding of mechanisms by which males and females have different biological vulnerabilities to brain disorders.

Dr. Jeffrey Tasker, the Catherine and Hunter Pierson Chair in Neuroscience and Professor of Cell and Molecular Biology in the School of Science and Engineering, is a member of the *Hormone-Brain Interactions Research Group*. Dr. Tasker studies the effects of stress on the brain. Stress leads to changes in communication between neurons that can be beneficial to survival in the short term, but can be detrimental if stress is chronic or traumatic in nature. His research has identified intriguing links between stress hormones and cannabislike compounds called endocannabinoids that are produced naturally by our brains. His ultimate goal is to understand the changes in the brain induced by stress that lead to human psychiatric conditions, including depression, anxiety, and posttraumatic stress disorder. "We want to look at why (with PTSD) you can't get past those memories," says Tasker.



Supraoptic nucleus of the hypothalamus in a brain of a transgenic rat expressing green fluorescent protein in vasopressin neurons. Stress hormones inhibit release of vasospression through a mechanism involving endocannabinoids. Tasker Lab.

Zsombok Photo Paula Burch-Celentano, Tasker Photo Jackson Hill

BRAIN INSTITUTE AWARDS FACULTY GRANTS TO SUPPORT NEW COLLABORATIVE RESEARCH

The Marko Spark Innovation Research Fund in Memory, Cognition, and Neurodegeneration was created through the generous support of Marta and Bill Marko (E '81, E *83) to spark innovative research and support the creation of interdisciplinary collaborative research teams at the new Tulane Brain Institute. A \$50,000 award is to be made for five consecutive years.

The recipients of the inaugural Brain Institute Marko Spark Fund Award were Dr. Bruce Bunnell, Director of Tulane Center for Stem Cell Research and Regenerative Medicine and Professor of Pharmacology in the School of Medicine, and Dr. Michael Moore, Associate Professor, Department of Biomedical Engineering in the School of Science and Engineering in support of their project "Determining actions of adipose stem cells on CNS remyelination in a novel microengineered in vitro model".

This award sparked a new interdisciplinary collaboration between Drs. Bunnell and Moore allowing them to investigate the feasibility of studying complex interactions between stem cells and demyelinating nerve tissue in a completely novel way--using advanced 3D engineered tissues. The work has important implications for the study of demyelinating diseases such as multiple sclerosis. Results of this new collaborative research have already been presented at the Mayo Clinic "BRAIN Initiative Symposium" in April and at the "Organ-ona-Chip World Congress" held in Boston in July.

A second grant, the *Tulane Brain Institute Research Fund Award*, was given this past year thanks in part through the generous support of Maria and Curtis Pellerin (A&S '77) made in memory of Sue Rose Wright Pellerin (NC'47). A \$25,000 grant was awarded to Dr. Laura Schrader, Associate Professor of Cell and Molecular Biology in the School of Science and Engineering and Dr. Ricardo Mostany, Assistant Professor of Pharmacology



Microengineered myelinated axon structures. MBP (green) = myelin basic protein, a main component of myelin, the fatty insulation that encases axons of nerves and increases the speed of neural conduction. Moore Lab.

in the School of Medicine, in support of their new collaborative project "Orchestration of thalamic oscillations by Shox2 and its role in experiencedependent cortical plasticity". The research is testing novel hypotheses regarding the role of the thalamus, a brain area critical for sensory integration, and its connections with the cortex in learning and memory. Results of the work will be presented in November at the Society for Neuroscience annual meeting in Washington DC.



Tulane Neuroscience PhD students Kevin Pollard (left, with back to camera) and Jeff Darling (center) present their research at a poster session at the 2016 Society for Neuroscience Annual Meeting held in November in San Diego.

BRAIN INSTITUTE RESEARCHER HAS DEVELOPED A NEW DRUG THAT COULD BE SAFER, NON-ADDICTIVE ALTERNATIVE TO MORPHINE

By: Keith Brannon

Researchers at Tulane University and Southeast Louisiana Veterans Health Care System have developed a painkiller that is as strong as morphine but isn't likely to be addictive and with fewer side effects. The work was published in the journal Neuropharmacology.

Using rats, scientists compared several engineered variants of the neurochemical endomorphin, which is found naturally in the body, to morphine to measure their effectiveness and side effects. The peptide-based drugs target the same painrelieving opioid receptor as morphine.

Opium-based drugs are the leading treatments for severe and chronic pain, but they can be highly addictive. Their abuse results in thousands of overdose deaths in the United States annually. They can cause motor impairment and potentially fatal respiratory depression. Patients also build up tolerance over time, increasing the risk for abuse and overdose.

"These side effects were absent or reduced with the new drug," said Brain Institute faculty member and lead investigator James Zadina, VA senior research career scientist and professor of medicine, pharmacology and neuroscience at Tulane University School of Medicine. "It's unprecedented for a peptide to deliver such powerful pain relief with so few side effects."

In the study, the new endomorphin drug produced longer pain relief without substantially slowing breathing in rats; a similarly potent dosage of morphine produced significant respiratory depression. Impairment of motor coordination, which can be of particular importance to older adults, was significant after morphine but not with the endomorphin drug.



Dr. James Zadina (center) with members of his lab, Neuroscience PhD students Amy Feehan and Mark Nilges (PhD '15).

The new drug produced far less tolerance than morphine and did not produce spinal glial cell activation, an inflammatory effect of morphine known to contribute to tolerance.

Scientists conducted several experiments to test whether the drug would be addictive. One showed that although rats would spend more time in a compartment where they had received morphine, the new drug did not affect this behavior. Another test showed that when the press of a bar produced an infusion of drug, the rats only increased efforts to obtain morphine and not the new drug. The tests are predictive of human drug abuse, Zadina said.

Researchers hope to begin human clinical trials of the new drug within the next two years.



Faculty and student members of the Tulane Brain Institute participate in the 2016 Walk to End Alzheimer's. The Brain Institute sponsored an information table and walking team at the event held in November at Audubon Park.

FACULTY ACCOLADES

Congratulations to the following Brain Institute faculty on their recent grants awards and other recognitions.

Dr. Prasad Katakam was awarded a \$1.3 million grant from NIH, "Endothelial expression of neuronal nitric oxide synthase."

Dr. Andrew MacLean was awarded two grants from the NIH, a \$2.87 million grant, "Eradication of Latent SIV from the CNS" (with Co-Principal Investigator Binhua Ling of the Tulane Primate Center) and a \$413,000 grant, "Exosome Origin in HIV Pathogenesis".

Dr. Michael Moore and his group's start-up company, AxoSim, was awarded a \$1.7 million Small Business Technology Transfer Grant from the NIH, "Peripheral nerve-on-a-chip for predictive preclinical pharmaceutical testing".

Dr. Ricardo Mostany was awarded a \$1.5 million grant from the NIH, "Cortical synaptic dynamics during learning in the aging brain" and also received the 2016 Tulane Oliver Fund Scholar Award.

Dr. Laura Schrader was awarded a \$413,000 grant from the NIH, "The role of Shox2 in thalamic development and function."

Dr. Jill Daniel was awarded a \$413,000 grant from the NIH, "Neural mechanisms underlying sex differences in impulsivity."

Dr. Sarah Lindsey was awarded a \$1.9 million grant from the NIH, "Eliciting estrogens protective vascular effects" and also received the Research Career Advancement Award from the American Physiology Society.

Dr. Franck Mauvais-Jarvis was awarded a \$1.8 million grant from the NIH, "Repurposing estrogens to improve pancreatic islet transplantation."

Dr. Anne Robinson along with investigators from Clemson and the University of Delaware was awarded a \$6 million grant from the NSF, "Advanced biomanufacturing: Catalyzing improved host development and high-quality medicines through genome to phenome predictions" and was also named a Fellow of the American Institute of Chemical Engineers.

Drs. Stacy Drury, Aaron Dumont, Stephen Nelson, and Gregory Stewart made New Orleans Magazine's annual Best Doctors list.

Dr. Stacy Drury was appointed to the National Institute on Minority Health and Health Disparities Expert Panel.

Dr. Jeffrey Lockman was named the Lila L. & Douglas J. Hertz Chair in Psychology.

Dr. Yu-Ping Wang was elected as a member of the College of Fellows to the American Institute for Medical and Biological Engineering.

Dr. Beth Wee (*pictured below*), Director of Neuroscience Undergraduate and Master's Programs, received the Tulane 2017 Weiss Fellow Award for excellence in undergraduate teaching.



THE BRAIN INSTITUTE CONGRATULATES OUR 2017 GRADUATES!

At the May Commencement, 122 students were awarded degrees in Neuroscience that included 93 Bachelor of Science, 25 Master of Science and four Doctor of Philosophy degrees.

The following Neuroscience graduates received Neuroscience Program Awards:

 Kathy Le - Senior Scholar in Neuroscience

 Alyssa Cruse - Senior Scholar in Neuroscience

 Clara Howell - Gerall Award in Behavioral Neuroscience

 Julia Chimienti - Neuroscience Faculty Award

 Taylor Fitzpatrick-Schmidt - Neuroscience Faculty Award

 Sara Kebede - Neuroscience Faculty Award

 Chara Kebede - Neuroscience Faculty Award

The following Neuroscience graduates received University Awards: Julia Chimienti - Tulane 34 Award

G. Hunter Williams - Green Wave Athletics Wilson Award

Rory Loo - Newcomb - Tulane College Leaders in Service Award

Bailey Monsour - Newcomb-Tulane College Leaders in Service Award

Morgan Moses - Newcomb-Tulane College Dean's Service Award

Alyssa Cruse - William Peery Society

Kathy Le - William Peery Society

The following Neuroscience graduates received national awards: **Sierra Lear** - Goldwater Scholar Honorable Mention

G. Hunter Williams - Academic All-America Division I Baseball First Team

The following graduates received PhD degrees in Neuroscience:

Brett East - currently a postdoctoral fellow at New York University

Damek Homiack - currently attending Tulane Medical School

Oliver Miller - currently a postdoctoral fellow at the University of California, San Francisco School of Medicine

Jackie Moran - currently attending Tulane Law School

LOOKING FORWARD



Damek Homiack, who did his PhD training with Dr. Laura Schrader, lines up in preparation to enter McAlister Auditorium for the PhD Recognition and Hooding Ceremony.



The Class of 2021 is welcomed to Tulane University during the annual President's Convocation for New Students on August 26, 2017. Included in that number are approximately 120 future neuroscience majors!



Tulane Brain Institute

Donna and Paul Flower Hall Suite 200 6823 St. Charles Avenue New Orleans, LA 70118





Giving to the Tulane Brain Institute

Our vision is to create a new era of discovery, learning, and public influence in brain sciences at Tulane as we advance the Tulane Brain Institute to national prominence. A gift to the Brain Institute can help us realize this vision.

To give online, please go to http://giving.tulane.edu and type in *Brain Institute* in the "other" box. For more information on giving opportunities or if you would like to target your gift to initiatives supporting faculty and their research, the training and education of our students, or community outreach and engagement, please contact Nicole Graas at 504.314.2900 or ngraas@tulane.edu. Thank you.