

Brain science researchers embark on year-long studies of autism, epilepsy, pain, stroke

Funded by 'New Frontiers' awards from the Brown Institute for Brain Science and the Norman Prince Neurosciences Institute

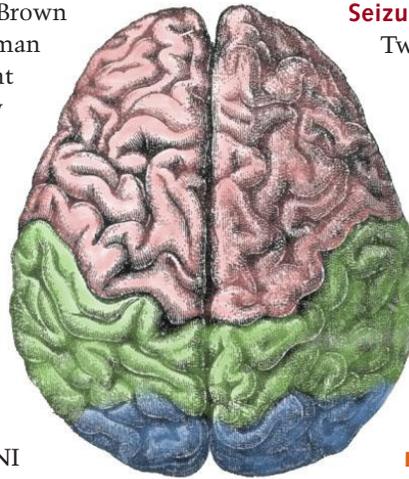
PROVIDENCE — With four new grants, the Brown Institute for Brain Science and the Norman Prince Neurosciences Institute have brought together teams from the Brown University campus and affiliated hospitals to study key questions in autism, epilepsy, pain and stroke.

"A great strength of our academic medical center is the ability to bring together expertise that stretches from the lab to the patient," said **JOHN ROBSON**, BIBS associate director for medical research and clinical programs and NPNI administrative director. "The New Frontiers Award program of BIBS and NPNI is to encourage and support innovative new projects of basic and clinical teams so they can succeed."

This round of grants, the program's fourth, launches three new projects and continues another. Each team will receive \$40,000 from BIBS, NPNI, and their academic departments. The new projects will begin July 1.

Autism

BARRY CONNORS, chair of neuroscience, and **DR. BRIAN THEYEL**, a psychiatry resident, will use Brown-developed mouse models to test their hypothesis that disruptions in the connectivity between the thalamus and the cerebral cortex might contribute to some of the symptoms associated with autism, such as hypersensitivity to stimuli.



Seizures

Two neurology faculty members, **DR. CURT LAFRANCE** and **DR. ANDREW BLUM**, and Wilson Truccolo, assistant professor of computational neuroscience, will study whether nervous system measurements gathered by the MIT-developed "Q-sensor," which can be worn on the wrist, can be used to detect, distinguish, and possibly predict different types of seizures. If so, it could help streamline and improve seizure diagnosis and treatment.

Strokes

DEREK MERCK, assistant professor of diagnostic imaging, and **JAMES HAYES**, assistant professor of computer science, will work together to develop an automated method of analyzing CT scans to quickly detect and classify strokes. Their goal is to shorten the time required to diagnose and begin treating patients.

Chronic pain

The fourth grant continues a New Frontiers collaboration between **STEPHANIE JONES**, assistant professor (research) of neuroscience, and **DR. BEN GREENBERG**, professor of psychiatry and human behavior. They are exploring whether noninvasive electromagnetic stimulation that modulates alpha rhythms can reduce sensory sensitivity in people and be developed as a technique for reducing chronic pain where drugs, including opioids, are not effective. ❖

CNE Cardiovascular participating in TEMPO clinical research trial

PROVIDENCE – Care New England Cardiovascular Care is taking part in the TEMPO clinical research trial to evaluate the effect of an investigational drug being developed for the treatment of heart rhythm problems. The study is specific to patients with Implantable Cardioverter-Defibrillators (ICD) or Cardiac Resynchronization Therapy-Defibrillators (CRT-D).

The purpose of the TEMPO study is to assure what effect the trial drug has on heart rhythm problems in patients who have an ICD or CRT-D, and also determine the safety profile of the drug in this phase II study.

Specific heart rhythm problems which the investigational drug is being developed for are ventricular tachycardia (VT) and ventricular fibrillation (VF), in patients with an ICD or CRT-D. VT and VF are major causes of sudden death relating to the heart. Patients who have a history of these conditions or are at risk for developing these conditions, are usually treated with an ICD which can stop VT/VF but does not prevent VT/VF.

"We are excited to be conducting the TEMPO clinical trial for the many patients who have heart rhythm problems and live with ICD and CRT-D

devices," says **CHESTER HEDGEPEETH, MD, PhD**, executive chief of cardiology, Care New England. "These patients could greatly benefit from drug therapy to reduce the frequency of VT/VF and defibrillator shocks."

Enrollment will occur over a 12-month period and the expected maximum treatment duration is approximately 18 months. Approximately 120 subjects will be randomized at about 120 study sites in North America, Europe and Israel. The study is open to male and female subjects, 18-80 years of age and is funded by Gilead Sciences, Inc. ❖