

\$19.5M Grant to Bridge Gaps Between Medical Research, Health Care in RI

With a new five-year federal grant, the Rhode Island Center for Clinical Translational Science will strengthen connections between scientific discovery and health around the state.

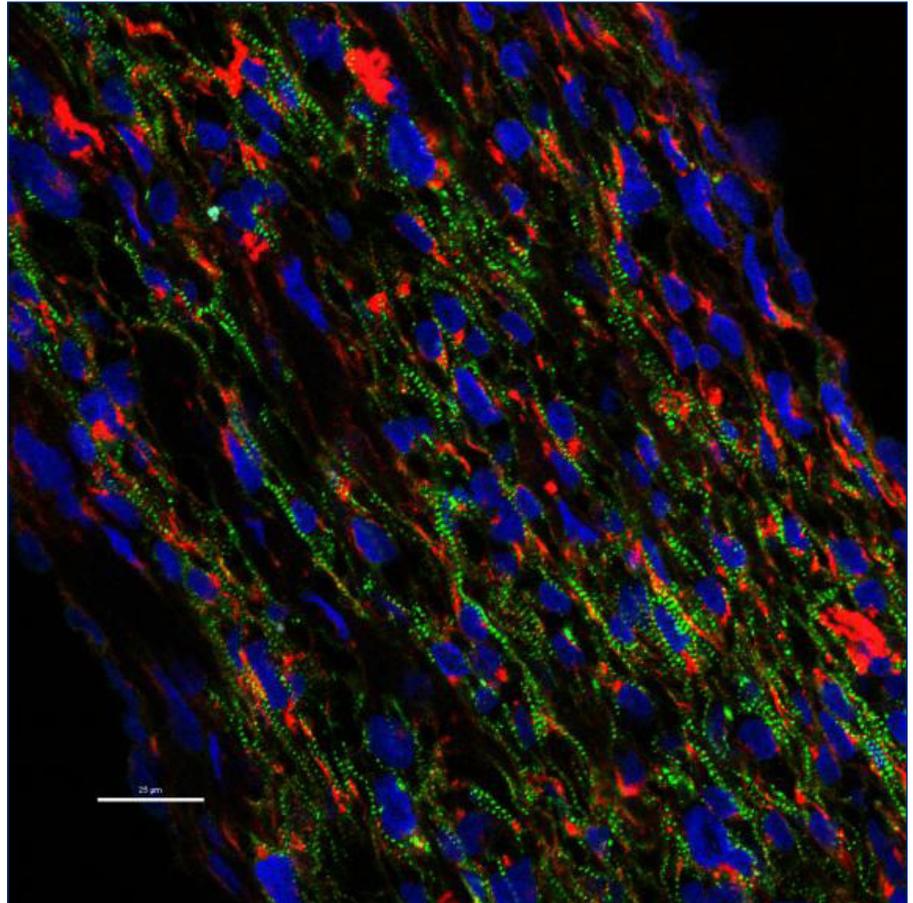
PROVIDENCE – Rhode Island’s scientists can deliver the benefits of discoveries more quickly to health care providers and those clinicians can pose more pertinent questions to scientists when they work together closely with broad, deep and cohesive services and support from their academic medical institutions. That’s the vision the Rhode Island Center for Clinical Translational Science (RI-CCTS) will implement with a new \$19.5 million, five-year grant from the National Institute of General Medical Sciences.

The grant will allow RI-CCTS to create the educational and technical infrastructure needed to spur Rhode Island researchers to design, conduct and analyze more medical studies, including treatment trials, that build on basic research. The center — based at Brown University in full partnership with the University of Rhode Island and the Care New England, Lifespan and Veterans Affairs hospitals – will also expand the access that medical and public health researchers have to population health data by working with the Rhode Island Quality Institute.

To achieve those aims, RI-CTTS will create a robust foundation of services and supports and fund dozens of pilot projects and training grants to catalyze new clinical research, said **DR. JAMES PADBURY**, principal investigator and program director of the new center.

“This is an infrastructure grant,” said Padbury, the William and Mary Oh-William and Elsa Zopf Professor of Pediatrics for Perinatal Research at Brown’s AlpertMedicalSchoolandpediatrician-in-chief at Care New England’s Women & Infants Hospital. “We aren’t being awarded resources to target a specific disease but to build the infrastructure to target a wide range of opportunities.

“Nonetheless, with these resources we will be able to support the kinds of advances that have already been taking



COURTESY: KAREEN COULOMBE

Brown University and Lifespan researchers designed a new way, using a tissue engineering mold, to align human non-embryonic stem cells to derive heart muscle cells to strengthen a rat’s heart after a heart attack. The engineered muscle cell bands appear green. The team is led by **Kareen Coulombe**, assistant professor of engineering, and researchers at Lifespan’s Cardiovascular Research Center Ulrike Mende, professor of medicine and **Bum-Rak Choi**, associate professor of medicine (research).

place in our own research community – for example, new therapies for asthma and muscular dystrophy; technology for cardiac regenerative medicine; methods for pain management; national trials on hormone therapy for menopause; the development of vaccines for malaria; the measurement of the effect of home-delivered meals on loneliness in the elderly; and the identification of the link between the mechanisms underlying preeclampsia and Alzheimer’s disease.”

The funding comes from the Insti-

tutional Development Award program at the National Institutes of Health, which has supported many local Center of Biomedical Research Excellence (COBRE) grants dedicated to conducting research in areas ranging from behavioral neuroscience to perinatal medicine, cancer and skeletal health. As those centers around the state have emerged over the last decade, local professors and physicians also began to lay the groundwork to earn a grant that would amplify the ability to pursue clinical research.

"There has been a group of faculty across our various institutions who have worked together on this for quite a while," said RI-CTTS program coordinator **ED HAWROT**, Brown's Alva O. Way University Professor of Medical Science and associate dean of biology. "This has been a great collaboration."

The structure of RI-CCTS will be built upon seven cores and programs and will create at least 10 jobs, said **HELEN LEFFERS**, administrative director of the new center: For example, the administrative core will hire four new staff members for functions including communications and finance. As researchers earn funding for pilot projects, they may create additional jobs for the 1–2 year duration of their projects.

- **Administrative Core:** Led by Padbury, Hawrot and Leffers, the center's administrative core will be housed at 233 Richmond Street and will manage, coordinate and supervise RI-CTTS operations.
- **Pilot Projects Program:** Led by medical professors and Providence VA Medical Center physicians **DR. SHARON ROUNDS** and **DR. MICHELLE LALLY**, the core will provide 20 seed grants to multidisciplinary teams of junior researchers and mentors to do new clinical research. At least one project each year will be a clinical trial.
- **Biomedical Informatics Core:** Led by Brown medical professors **NEIL SARKAR** and **ELIZABETH CHEN**, this core will provide expertise, training and technological resources to allow for "big data" analyses of medical and genomic data. Sarkar said the grant will accelerate the ability of the Brown Center for Biomedical Informatics to establish a multi-institutional framework for using electronic health data from Lifespan, Care New England and RIQI to enable novel biomedical research opportunities and to support enhanced patient care. This would be among the first such statewide integrations of biomedical, clinical and health data spanning research laboratory, healthcare system and state government sources in the U.S., Sarkar said.
- **Clinical Research Design, Epidemiology and Biostatistics Core:** Led by Brown School of Public Health biostatistics professor **CHRIS SCHMID** and Lifespan Biostatistics Core Director **JASON MACHAN**, this core will create a central "storefront" of statewide resources and services, mentoring and training, and tools and methods development for conducting well-designed clinical research.
- **Professional Development Core:** Led by **IRA WILSON**, chair of health services, policy and practices in the Brown University School of Public Health, the core will provide Mentored Research Awards to three scholars each year. It will also create training programs and develop a statewide mentoring network for clinical and translational research.
- **Clinical Research Resources and Facilities:** Led by Rhode Island Hospital Clinical Research Center Medical Director **DR. BHARAT RAMRATNAM**, this core will unify the many successful clinical research enterprises among partner institutions (encompassing 700 researchers) into a general Clinical Research Center to share best project management and other practices and to gain cost efficiency in setting up and conducting clinical research.
- **Tracking and Evaluation Core:** Led by University of Rhode Island pharmacy professor **CYNTHIA WILLEY** and Hasbro Children's Hospital pediatric immunologist **DR. ANTHONY HAYWARD**, this core will ensure that the center's work is aligned with program goals and community needs and uses resources wisely. The core will also track the center's output and monitor progress and practices to achieve continuous process improvement in the center's work. ❖

Alpert Medical School, Hope Hospice & Palliative Care Expand Affiliation

PROVIDENCE – The Warren Alpert Medical School of Brown University and Hope Hospice & Palliative Care Rhode Island have renewed and expanded their affiliation for five more years, the institutions announced Tuesday, July 12.

DR. JACK A. ELIAS, dean of medicine and biological sciences at Brown, said the renewal between Rhode Island's medical school and its largest not-for-profit hospice and palliative care organization emphasizes the importance of training new and future physicians in compassionate care for those who are seriously ill. Brown and Hope Hospice first affiliated in 2012, formalizing a longstanding collaboration under which scores of students and residents receive training every year.

"Comforting and guiding patients and their loved ones at the end of life is an essential responsibility of medical practice," Elias said.

"We are honored this renewal allows us to continue to train the next generation of physicians to understand the role and importance of caring for those who are seriously ill," said **EDWARD W. MARTIN, MD, MPH, FAAHPM**, Chief Medical Officer, Hope Hospice & Palliative Care Rhode Island and clinical associate professor, Warren Alpert Medical School of Brown University.

Hope Hospice President and CEO **DIANA FRANCHITTO** praised the new accord and the partnership it represents. "We are honored this renewal allows us to continue to train the next generation of physicians to understand the role and importance of caring for those who are seriously ill."

Among the specific terms of the agreement, Hope Hospice & Palliative Care can now begin using Brown's logo. The medical school will approve clerkship directors, elective directors and key faculty. ❖