



Lars Blackmore

Geisel researchers and clinicians—such as neonatologist Juliette Madan (*left*), epidemiologist Margaret Karagas (*center*), and bioinformatics expert Jason Moore—are already known for their willingness to work together to translate discoveries to patients and communities. A new grant from the NIH will help increase and accelerate these collaborations across disciplines.

NIH GRANT IS A “GAME-CHANGER” FOR TRANSLATIONAL RESEARCH AT GEISEL

DARTMOUTH HAS BEEN AWARDED \$18 million by the National Institutes of Health’s highly competitive Clinical and Translational Science Award (CTSA) program, joining an elite group of U.S. research universities conducting translational research.

The five-year grant will be matched with an additional \$20 million from Dartmouth’s Geisel School of Medicine and the Dartmouth-Hitchcock health system, for a total investment of \$38 million in translational science at Dartmouth College, the Geisel School of Medicine, Dartmouth-Hitchcock, and the Veterans Affairs Medical Center in White River Junction, Vt.

Translational research brings laboratory discoveries to clinical practice, transforming scientific and therapeutic breakthroughs into new treatments and cures and improved health outcomes.

research, while providing significant resources to dramatically increase the impact of our research on population health,” says Alan Green, the grant’s principal investigator and director of Dartmouth SYNERGY: The Dartmouth Clinical and Translational Science Institute, which was launched in 2010. Green is also chair of Geisel’s Department of Psychiatry.

“As the pace of scientific discovery has accelerated in recent decades, the need for an efficient system of translating that knowledge into real-world applications has also increased,” Green adds. “People

“THIS NIH AWARD WILL HAVE A TRULY TRANSFORMATIONAL IMPACT ON OUR RESEARCH AND EDUCATION PROGRAMS.”

“This \$38-million public and institutional investment is a game-changer for Dartmouth,” says Dartmouth President Phil Hanlon (D’77). “It will transform Dartmouth’s capacity to innovate and produce research that makes a difference in people’s health and lives.”

The grant was announced in early October by the NIH’s National Center for Advancing Translational Sciences (NCATS). Dartmouth is one of 15 leading research institutions nationally receiving awards. The funding will support health-care innovation at Dartmouth and accelerate the development of new treatments using the power of data, emerging technologies, and collaboration across disciplines, schools, and institutions.

“This award recognizes our established strengths in life sciences and health outcomes

want to know that publically funded research produces tangible benefits. Translational scientists at SYNERGY, often working in multidisciplinary teams, are changing the landscape for biomedical research so that research findings can be quickly leveraged into new treatments, more effective ways of delivering care, and exciting approaches targeting disease prevention and health resilience.”

With the award, Dartmouth becomes the first institution in northern New England to join the CTSA consortium, a nationally prominent network of about 60 medical research institutions in 30 states and the District of Columbia. The greater Boston area CTSA consortium members include Harvard University, Boston University, Tufts University, and the University of Massachusetts Medical School.

OVERHEARD



“It is uniquely human to believe that mortality happens to other people.”

—SHARONA SACHS, MD, GEISEL ASSISTANT PROFESSOR OF MEDICINE AND PALLIATIVE CARE SPECIALIST AT DHMC, QUOTED BY NEW HAMPSHIRE PUBLIC RADIO.

Dartmouth and the Geisel School of Medicine already have a long history of fostering collaboration. SYNERGY, for example, brings together a wide range of scholars, researchers, and clinicians from the Medical School, the Tuck School of Business, Thayer School of Engineering, Dartmouth’s Arts and Sciences departments, Dartmouth-Hitchcock, the White River Veterans Affairs Medical Center, and the Dartmouth Center for Health Care Delivery Science.

SYNERGY collaborators at Dartmouth work to accelerate the process of turning laboratory discoveries into treatments for patients, engage community partners in clinical research efforts, and educate and train new clinical and translational researchers.

“Along with the construction of the new Williamson Translational Research Building, opening in 2015, this NIH award will have a truly transformational impact on our research and education programs,” says Geisel Dean Chip Souba. “Our Clinical and Translational Sciences Institute will help us build our signature research programs, accelerate the translation of discoveries from bench to bedside and bedside to community, and develop a strong pipeline of emerging clinical and translational researchers.”

Dartmouth SYNERGY—and many researchers and physicians involved in translational research—will eventually be based in the Williamson Translational Research Building, which will be located on the Geisel School of Medicine’s Lebanon campus. Construction of the building was approved by Dartmouth’s Board of Trustees in 2012, and the building is scheduled to open in 2015.

PEDIATRIC ATLAS MARKS A RETURN TO THE ROOTS OF VARIATIONS RESEARCH

DAVID GOODMAN’S NEWEST RESEARCH PROJECT IS, in some ways, a return to the past.

In the 1960s, John Wennberg uncovered wide variations in rates of tonsillectomy in Vermont, sparking his interest in the study of health-care delivery and leading, eventually, to the creation of the Dartmouth Atlas Project in the 1990s.

Goodman, a pediatrician by training and the director of the Center for Health Policy Research at TDI, began working on the Atlas at its inception, and his earliest research interest was in pediatric care in northern New England. But databases to support such research were limited, so he moved on to other areas, such as the study of variations in physician supply.

Now, as co-principal investigator of the Dartmouth Atlas Project, Goodman is returning to his interest in variations in pediatric care thanks to the availability of new datasets and the support of the Hood Foundation. “I’m excited to get back to pediatric studies with an interesting and powerful dataset,” he says. “It’s the ideal utilization dataset for a region and sets the benchmark for the nation.”

The northern New England dataset—which currently includes Maine, New Hampshire, and Vermont and will add Massachusetts in the near future—is unusual in that it includes data from both Medicaid and commercial insurers. The collection of the commercial data was mandated by the states. When federal Medicaid data is included, the research can be performed on what Goodman refers to as “all-payer data sets.”

The work is being funded by a grant from the Hood Foundation, which has a history of funding research on pediatric diseases. The Foundation has strong ties to Dartmouth, having funded both the Hood Center for Children and Families and the Hood Museum of Art at Dartmouth. “The Foundation has become very interested in the work we do at the Dartmouth Institute,” says Goodman.

The project has three main goals. The first is to develop an atlas of pediatric health care in northern New England. Goodman hopes that this work will encourage further research in

pediatric care and convince states to support the gathering of data on pediatric care. “The states need to mandate this type of data collection if we are to understand the care paid for by commercial payers,” he explains. The Atlas work is nearly complete and is projected to be published later this year.

The second goal is to publish peer-reviewed research. Goodman and his colleagues are developing unique studies of prescribing patterns for children and of the care of medically complex children at children’s hospitals. “Medically complex children are an important group of patients who are also terrifically expensive, and there’s been little work to understand how these kids are cared for,” says Goodman. The studies aim to demonstrate what works best and how to improve care generally.

The third goal is to convene the very small community of researchers who are studying variations in pediatric health care. “Unlike the study of the elderly, where there is a large, robust community, there’s been little work in pediatrics,” Goodman says. “In December 2013, we’re going to bring together those researchers to see if we can advance the research.”

“UNLIKE THE STUDY OF THE ELDERLY . . . THERE’S BEEN LITTLE WORK IN PEDIATRICS.”

The final Atlas measures will include those for evidence-based care, selected surgical procedures (including tonsillectomies), hospitalizations, imaging, emergency room use, and prescription drug use.

When the research is complete, both Goodman and variations research at Dartmouth will have come full circle, revisiting Wennberg’s earliest work 40 years after it was started.

NANCY FONTAINE