

BBII Funds Biomedical Breakthroughs

Four research teams receive innovation grants to bring medical products to the market.

IN ITS THIRD ANNUAL CYCLE, Brown Biomedical Innovations to Impact (BBII) awarded four research teams up to \$100,000 each to accelerate the translation of their scientific discoveries into commercial products that could benefit patients facing urgent medical challenges.

As an accelerator fund that supports academic biomedical technologies, BBII is run by the University's Division of Biology and Medicine in collaboration with Brown Technology Innovations, part of the Office of the Vice President for Research.

PROJECT AWARDEES

ERIC MORROW, the Mencoff Family Professor of Biology, professor of neuroscience, professor of psychiatry and human behavior, and director of the Center for Translational Neuroscience at the Carney Institute for Brain Science, is identifying and testing potential treatment strategies that prevent development and progression of a rare genetic disorder called GPT2 deficiency.



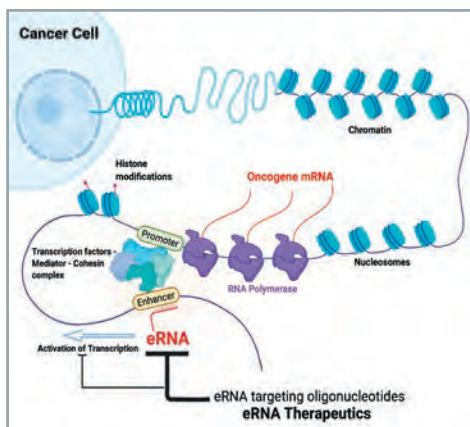
The endoscopic camera captures a wide-angle view of the entire operative field. Each surgeon views their own close-up of the field, centered around their instrument (i.e., orange or green).

FRANCOIS LUKS, a professor of surgery, pediatrics, obstetrics, and gynecology, is developing a system called driver-assisted videoscopic surgery (DAVID) that offers the possibility of a large change in minimally invasive surgery (MIS): the ability to splice input from a single endoscopic camera into multiple images that can be viewed and manipulated independently by multiple clinicians on a patient care team.



Blanche Ip works with silicone molds used to make microtissues with human cells.

JEFFREY MORGAN, a professor of pathology and laboratory medicine and professor of engineering; **BLANCHE IP**, an assistant professor of pathology and laboratory medicine (research); and **FRANK SELLKE**, Karl E. Karlson, MD and Gloria A. Karlson Professor of Cardiothoracic Surgery and chief of cardiothoracic surgery at Rhode Island Hospital, are advancing their method of producing lab-grown, human-derived tissue to fabricate biomaterials for cardiac repair after a heart attack, a significantly less invasive procedure than a heart transplant.



Schematic illustration of Tapinos Lab research on eRNA therapeutics for brain tumors

NIKOS TAPINOS, Sidney A. Fox and Dorothea Doctors Fox Associate Professor of Ophthalmology, Visual Science, and Neuroscience, is discovering and developing drugs to interfere with enhancer RNA (eRNA) molecular targets in order to stop the growth of a type of cancer cell called glioma stem cells (GSCs) and change the treatment course for glioblastoma, the most prevalent and aggressive type of brain tumor.