



**INITIATIVE FOR
RNA MEDICINE**
HARVARD MEDICAL SCHOOL



Hosted by
**Beth Israel Deaconess
Medical Center**
Cancer Center

newsletter

Spring 2018

HMS Initiative for RNA Medicine Opens First Non-coding RNA Core



The HMS Initiative for RNA Medicine (HIRM), with the support of the Cancer Center and the Department of Pathology at Beth Israel Deaconess Medical Center (BIDMC), has opened a new state-of-the-art facility dedicated to the study of non-coding RNAs (ncRNA). The Non-coding RNA Precision Diagnostics and Therapeutics Core Facility will help accelerate the

discovery and translation of ncRNA diagnostics and therapeutics, with the hope of leading to better cures and treatments for disease.

“The ncRNA Core Facility will focus on the non-coding RNA portions of the genome for discovery of novel biomarkers and targets for therapeutics from human disease tissue and clinical trial specimens,” said Frank Slack, PhD, Director of the HIRM and the HMS Shields Warren-Mallinckrodt Professor of Medical Research at BIDMC. “Our initial focus will be on cancer, but the work has profound implications for a broad range of human disease diagnostics and therapeutics.”

“We cannot begin to talk about personalized medicine when we only understand two percent of the genome,” said Pier Paolo Pandolfi, MD, PhD, Director of the Cancer Center and Cancer Research Institute at Beth Israel Deaconess Medical Center, Co-Director of the HIRM at the BIDMC Cancer Center, and the George C. Reisman Professor of Medicine at HMS. “Non-coding RNAs are now known to be abundant, and their detection and characterization requires specialized technologies for purification, delivery, imaging, bioinformatics and RNA sequencing. With the new ncRNA Core Facility, we are poised to identify new targets and develop new treatments for a wide range of diseases — including cancer.”

The new 1,393 square foot, self-contained lab facility is located in a building on BIDMC’s East Campus at 330 Brookline Avenue, Boston, adjacent to other research and clinical operations and easily accessible to other major academic institutions as well as to biotech and pharmaceutical companies in Greater Boston. “The diversity, complexity and specificity of non-coding RNAs provide extraordinary opportunities to advance disease detection and treatment,” said Jeffrey E. Saffitz, MD, PhD, Interim Chief Academic Officer and Chief of the Department of Pathology at BIDMC, and Mallinckrodt Professor of Pathology at HMS. “Identifying and characterizing disease-critical ncRNAs requires specialized technologies, informatics pipelines and equipment, all of which will be provided through this new facility.”

from the desk of

Frank J. Slack, PhD

Director, HMS Initiative for RNA Medicine

Director, Institute for RNA Medicine, Cancer Center, Beth Israel Deaconess Medical Center

Shields Warren Mallinckrodt Professor, Departments of Pathology and Medicine, Harvard Medical School

Find us on the Web:

bidmc.org/hirm
info.irm@bidmc.harvard.edu

Recent News

[Reactivating a Dormant X](#)

From *GEN*, February 20, 2018

HIRM Member Dr. Jeannie Lee on a new strategy to treat Rett Syndrome

[Retracing a Blood Cell’s Fate](#)

From Harvard Medical School, January 18, 2018

Research from HIRM Member and HMS Dean Dr. George Daley on hematopoietic stem cells

[High-Fat Diet May Fuel Spread of Prostate Cancer](#)

From *The New York Times*, January 16, 2018

Groundbreaking discovery from HIRM Member & BIDMC Cancer Center Director Dr. Pier Paolo Pandolfi

RNA Delivery Pilot Grants

The HMS Initiative for RNA Medicine is pleased to announce the recipients of the inaugural round of pilot funding for innovative research projects in the area of RNA delivery:

“Cytoplasmic rolling-circle RNA inhibition of LIN28”
Richard Gregory, PhD and William Shih, PhD

“Development of miRNA mimics for cortical neurodegeneration”
Anna Krichevsky, PhD and Anastasia Khvorova, PhD

“MicroRNAs as a therapeutic targets in KRAS-mutant pancreatic cancer”
Frank Slack, PhD and Sangeeta Bhatia, MD, PhD

All of the funded projects involve collaborations between HIRM members and researchers at outside institutions. The HIRM is currently planning the next round of pilot funding, which will be distributed to researchers working in the area of RNA medicine and immuno-oncology.

Commercializing Academic Discoveries in RNA Medicine

On Tuesday, October 31, 2017, the HIRM and the BIDMC Technology Ventures Office co-hosted a lunchtime panel discussion at the Joseph B. Martin Conference Center on “Commercializing Academic Discoveries in RNA Medicine.” The event drew a crowd of 80 attendees with an interest in RNA science, and panelists included Jason Rhodes of Atlas Ventures, Sudhir Agrawal of Idera Pharmaceuticals, and Wannu Davis of the BIDMC TVO.

Nanocourse Held at HMS

Dr. Slack, Dr. Eleni Anastasiadou, and Dr. Maud-Emmanuelle Gilles hosted a 6-hour HMS nanocourse in Non-coding RNAs and Cancer on March 23 and 26, 2018. Participants discussed the field of non-coding RNAs with a particular focus on their roles in the hallmarks of cancer. The course material also covered the potential use of ncRNAs as diagnostic and prognostic markers of cancer, and the future of miRNA-based therapies in cancer. This nanocourse was open to all Harvard graduate students and other members of the Harvard community as auditors, and more information can be found online on the [HMS nanocourse website](#).

Call for Membership Applications

The HMS Initiative for RNA Medicine welcomes applications for new members. Full and Associate membership is open to faculty members at Harvard-affiliated institutions who are contributing to the peer-reviewed literature in RNA biology/medicine (complete criteria available online or by request.) Junior faculty planning to conduct research in RNA are eligible for membership and are especially encouraged to apply. Prospective members should contact Hilary Prosnitz at hprosnit@bidmc.harvard.edu.

Sponsorship Opportunities

The HMS Initiative for RNA Medicine welcomes inquiries from individuals and companies interested in supporting RNA medicine. Donations to the HIRM can be directed toward research or the overall operating costs for a particular event, including our annual Symposium. Please contact us for more information.

Twitter



February 28, 2018
Recent news from HIRM member Dr. Judy Lieberman: Microbial Murder Mystery Solved | HMS - study catches killer cells red-handed, could pave way to new antimicrobials

February 20, 2018
From HIRM member Dr. Myles Brown of @DanaFarber: Study sheds new light on mechanism of breast cancer treatment resistance

February 8, 2018
With Prof. Mark Kay from @StanfordMed at this afternoon's HIRM Seminar

Events

HIRM Seminar Series

Mark W. Feinberg, MD
Brigham & Women's Hospital
April 3, 2018, 3 PM
CLS 421, 3 Blackfan Circle

HIRM Seminar Series

Carmelo Nucera, MD, PhD
Beth Israel Deaconess Medical Center
April 10, 2018, 3 PM
CLS 421, 3 Blackfan Circle

RNAMECINE2018

April 26, 2018
Joseph B. Martin Conference Center at Harvard Medical School, 77 Avenue Louis Pasteur
Register now:
bidmc.org/rnamedicine2018

Contact Us

HMS Initiative for RNA Medicine
BIDMC Cancer Center
3 Blackfan Circle
Boston, MA 02115
(617) 735-2632
info.irm@bidmc.harvard.edu