



# INSTITUTE FOR RNA MEDICINE

## newsletter

Fall 2015

## New iRM Member Saumya Das



The Institute for RNA Medicine is pleased to announce the addition of Saumya Das, MD, PhD, as our newest faculty member. Dr. Das, a researcher and electrophysiologist in the Division of Cardiovascular Medicine and the CardioVascular Institute at Beth Israel Deaconess Medical Center, is the first iRM member to focus on an area of medicine outside cancer. His work explores the role that microRNAs play in predicting which heart-attack patients might go on to develop remodeling complications, research which recently received a

\$3 million grant renewal from the National Institutes of Health program in Extracellular RNA Communication.

“Over the past two years, we have been using RNA sequencing technology to identify characteristics in extracellular RNAs in plasma that might enable us to better predict patient outcomes following a heart attack,” said Das. “Our ultimate goal is to use microRNA-based tests to predict which patients might be at risk of complications related to remodeling. That way we can more aggressively monitor their conditions and intervene with medications or implantable devices if needed.”

Das and his collaborators have completed the first phase of the project and have identified a number of microRNA biomarker candidates. Together with colleagues at Brigham and Women’s Hospital and Massachusetts General Hospital, Das will now investigate one of these molecules, microRNA-30d, along with other extracellular RNA candidates to validate these recent discoveries in several large patient cohorts.

## Register Now: “Current & Future Trends in RNA Medicine” Nov. 11

The Institute for RNA Medicine is partnering with the Technology Ventures Office at Beth Israel Deaconess Medical Center on a new event, “Current & Future Trends in RNA Medicine,” to be held on Wednesday, November 11, 2015. This lunch discussion will take place at the Joseph B. Martin Conference Center at Harvard Medical School in Boston from 12:00 to 1:45 PM and feature the following panelists:

Christopher J. Morl, Chief Business Officer, miRagen Therapeutics  
Arthur Krieg, CEO, Checkmate Pharmaceuticals  
Jay Kugler DeYoung, Patent Attorney, Fish & Richardson P.C.

Dr. Frank Slack, Director of the Institute for RNA Medicine, will moderate the discussion. Registration is online at [tvo.bidmc.org](http://tvo.bidmc.org). We hope to see you November 11!

*from the desk of*

### Frank J. Slack, PhD

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

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

Find us on the Web:  
[bidmc.org/irm](http://bidmc.org/irm)

### Recent News

#### [An Evolutionary Relic of the Genome Causes Cancer](#)

Scientists in the BIDMC Cancer Research Institute discover that a non-coding pseudogene leads to the development of a lymphoma-like cancer

#### [Is Most of Our DNA Garbage?](#)

iRM Member Dr. John Rinn studies long non-coding RNAs

#### [microRNA Silencing Is A Successful New Model for Cancer Therapeutics](#)

By exploiting a unique feature of the tumor microenvironment, scientists identify a novel delivery platform

# iRM Members Tenen & Pandolfi Receive Outstanding Investigator Awards from the NCI

Pier Paolo Pandolfi, MD, PhD, and Daniel G. Tenen, MD, leaders in the Cancer Research Institute at Beth Israel Deaconess Medical Center (BIDMC) and members of the Institute for RNA Medicine, have both received Outstanding Investigator Awards (OIA) from the National Cancer Institute (NCI) in recognition of "research programs of exceptional potential." Only 60 of these multi-million-dollar grants were made by the NCI to researchers around the country in 2015, awarded to investigators with outstanding records of productivity and achievement in cancer research. Pandolfi, Director of the BIDMC Cancer Center, has conducted groundbreaking work uncovering the molecular mechanisms and genetics underlying leukemias, lymphomas and solid tumors by modeling these cancers in mice. Tenen is a distinguished leader in the investigation of transcription factors, the signals that turn on genes for normal and abnormal cancer cell growth. His lab has characterized the transcription factors that play a role in differentiating hematopoietic stem cells into specific lineages, with a particular focus on myeloid differentiation in normal and leukemic cells.

## Slack Collaborating on Lung Cancer SPORE Project

Frank Slack, PhD, will co-lead a project examining microRNAs as a therapeutic for non-small cell lung cancer (NSCLC) as part of a grant from the National Cancer Institute (NCI). This collaboration with researchers at the Yale Cancer Center in New Haven, Conn., where the Specialized Program of Research Excellence (SPORE) grant is administered, brings together experts in oncology, immunobiology, pharmacology, molecular biology, pathology, and epidemiology to collaborate on projects investigating non-small cell lung cancer, one of the world's most prevalent and lethal forms of cancer.


"This new project is designed to prepare for and conduct a Phase II clinical trial with a microRNA therapy called MRX34 in non-small cell lung cancer," said Slack. "The microRNA-34 has been shown to inhibit tumor cell growth and enhance survival in a mouse model of NSCLC." Nearly 90 percent of lung cancers worldwide are NSCLC cases. While many cases are linked to smoking, genetic mutations in light- or never-smokers are increasingly being identified. "This project will bring us that much closer to clinical testing in humans, and offers a hopeful direction for new therapies to treat this stubborn and deadly disease," said Slack.

## Staff Profile: Hilary Prosnitz



Hilary Prosnitz has joined the iRM as Associate Director and will be working with Frank Slack on administrative and financial operations of the Institute, including budget management, marketing and communications, event planning, and faculty recruitment. She relocated to Boston in 2014 after four years working for the Yale Cancer Center and previously worked for the Pension Research Council of the Wharton School of the University of Pennsylvania. Hilary received her Bachelor's degree from Brown University and a MEd from the University of Pennsylvania Graduate School of Education.

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14 Oct 2015 Register now! "Current & Future Trends in RNA Medicine" lunchtime event Nov. 11 <http://bit.ly/1Gd8ADM>

13 Oct 2015 Great presentations at the BIDMC Cancer Center's 8th Annual Cancer Symposium

8 Oct 2015 Open Access article on LIN-28 gene interactions with let-7 microRNA in a living animal @RNAJournal

## Events

**RNAMECINE2016**  
April 27, 2016  
Joseph B. Martin Conference Center, Harvard Medical School  
Registration opens Dec. 2015

**iRM Seminar Series:** Anna Krichevsky, PhD, Brigham & Women's Hospital  
November 10, 2015, 3 PM  
CLS 421, 3 Blackfan Circle

**iRM Seminar Series:** Sven Diederichs, PhD, University Hospital Heidelberg  
December 15, 2015, 3 PM  
CLS 421, 3 Blackfan Circle

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