Translational Research

Steven D. Freedman MD, PhD, Chief

Anna Johansson PhD, mentors a junior faculty member.

The Division of Translational Research provides a unique "home" for faculty who play a major role in the infrastructure for clinical/translational investigation. The Division is integrated with the Harvard-Thorndike Clinical Research Center of BIDMC and Harvard Catalyst-funded through the NIH Clinical and Translational Science Award.

Linda Godfrey-Bailey, MSN, ACNS, BC, and **Yolanda Delvillar** prepare for a study visit to the Research Center.

This five-year $200 million grant from NIH brings together 11 Harvard schools and 18 Harvard teaching hospitals to advance therapeutic discovery and patient care. Dr. Steven Freedman plays a major role in career mentoring and developed a Grant Review and Support Program (GRASP) to help junior faculty transition to successful NIH R01 funding.

2009–2010 HIGHLIGHTS

Educational Highlights

The Division of Translational Research leads two educational initiatives. The first is Harvard Catalyst-sponsored Career Mentoring Program for fellows and junior faculty in clinical/translational research. A second initiative is through the two Harvard Medical School Masters in Clinical Research programs (K30 and Clinical Investigator Training Program (CITP)).

IRB Navigation

Dr. Anna Johansson brings her experience as an IRB Vice-Chair to provide consultation and guidance to junior faculty and fellows in clinical/translational research as they develop human research proposals and prepare submissions to the IRB. In the past year, she has supported more than 25 faculty and fellows.

Research Highlights

Research activities are in two arenas and represent a broad range of science. The first focuses on providing the infrastructure and tools necessary for clinical/translational investigation. This includes biostatistical support and study design assistance to investigators provided by Dr. Shiva Gautam, who also serves as the biostatistical consultant to our IRB. The second area focuses on providing strategic vision and initiatives both at a local BIDMC level and Harvard-wide. This is driven through Dr. Freedman's leadership role as Director of Clinical Research Affairs at BIDMC and Harvard-wide through Harvard Catalyst.

Dr. Johansson focuses on translating tools from the sociology laboratory to create and test explanatory models of team function, and develop reproducible measurements of team performance.

Dr. Camilia Martin from the Department of Neonatology is the new Director for Cross-Disciplinary Research Partnerships. Her focus is to bring together different disciplines – initially adult gastroenterology with pediatric neonatology – to achieve major scientific advances.

The Translational Research Division has been the nidus for a BIDMC and Harvard-wide health care reform initiative called Passport to TRUST. This initiative focuses on structuring the physician-patient interaction to improve patient satisfaction and optimize health outcomes while reducing health care costs. Dr. Freedman has presented this initiative to President Barack Obama and White House staff. The program also has the support of Congressman James Oberstar who held a major philanthropic fundraiser in Washington, D.C. this year.

SELECTED PUBLICATIONS

Freedman SD, Uppot RN, and Mino-Kenudson M. CPC: 32 year old cystic fibrosis patient with new onset abdominal pain. *N Engl J Med* 2009; 361:807-16.

Ooi CY, Gonska T, Durie PR, Freedman SD. Genetic testing in pancreatitis. *Gastroenterol* 2010; 138:2202-6.

Zaman MM, Martin CR, Andersson C, Bhutta AQ, Cluette-Brown JE, Laposata M, Freedman SD. Linoleic acid supplementation results in increased arachidonic acid and eicosanoid production in CF airway cells and in cftr -/- transgenic mice. *Am J Physiol Lung Cell Mol Physiol* 2010; 299:L599-606.

Accurso FJ, Rowe SM, Clancy JP, Boyle MP, Dunitz JM, Durie PR, Sagel SD, Hornick DB, Konstan MW, Donaldson SH, Moss RB, Pilewski JM, Rubenstein R, Uluer AZ, Aitken ML, Freedman SD, Rose LM, Mayer-Hamblett N, Dong Q, Zha J, Stone AJ, Olson ER, Ordonez CL, Campbell PW, Ashlock MA, Ramsey BW. Effect of VX-770 in persons with cystic fibrosis and the G551D CFTR mutation. *N Engl J Med* 2010; 363:1991-2003.

Martin CR, Brown YF, Ehrenkranz RA, O'Shea MT, Allred EN, Belfort MB, McCormick MC, Leviton A, Extremely Low Gestational Age Newborns Study Investigators. Nutritional practices and growth velocity in the first month of life in extremely low gestational age newborns. *Pediatrics* 2009; 124:649-57.

Martin CR, Dammann O, Allred EN, Patel S, O'Shea TM, Kuban KCK, Leviton A. Neurodevelopment of extremely preterm infants who had necrotizing enterocolitis with or without late bacteremia. *J Pediatr* 2010; 157:751-6.e1.

Mukamal KJ, Ghimire S, Pandey R, O'Meara ES, Gautam S. Antihypertensive medications and risk of community-acquired pneumonia. *J Hypertens* 2010; 28:401-5.

Woodhams R, Kakita S, Hata H, Iwabuchi K, Kuranami M, Gautam S, Hatabu H, Kan S, Mountford C. Diffusion weighted imaging for identification of residual breast carcinoma following neo adjuvant chemotherapy: comparison with contrast enhanced MRI and pathology. *Radiology* 2010; 254:357-66.

HONORS AND AWARDS

Steven Freedman, MD, PhD, was elected as the Chairman of the Board of Trustees of the Harvard Clinical Research Institute and received the A. Clifford Barger Award for excellence in mentoring.

Camilia Martin, MD, MS, was an invited speaker to the annual Neonatal/Perinatal Conference at Duke University. Additionally, she was the grand rounds speaker at the University of Chicago on nutritional impact on infant development and necrotizing enterocolitis in premature infants. Her second edition of Neonatology Review was published this year and is the major review textbook in Neonatology.

FACULTY

Steven D. Freedman, MD, PhD

Shiva Gautam, PhD

Anna Johansson, PhD

Camilia R. Martin, MD, MS

RESEARCH FUNDING

	Direct
Federal	**3,519,728**
Non Federal	**(2,000)**