Evans Center for Interdisciplinary Biomedical Research (Evans Center)

An Update
January, 2013

Katya Ravid
Founding Director, Evans Center

http://www.bumc.bu.edu/evanscenteribr/
Expand DOM
Educational
Mission & Scope

Develop New Interdisciplinary Research via ARCs

Develop New Research Disciplines (to BU)

Develop Cross Campus (CR-BMC) Programs; collaborations with other institutes

Create Opportunities for collaborations between Basic Scientists and Clinical Investigators

Publications (Co-PIs)
Grants (Co-PIs)
Educational Programs
New Disciplines (to BU)

Metric
*****ARCs Graduated on 12.31.2012*****

PROTEIN TRAFFICKING & NEURODEGENERATIVE DISEASE
Dr. Lindsay Farrer, ARC Director

SEX DIFFERENCES IN ADIPOSE TISSUE BIOLOGY AND METABOLIC DISEASE
Drs. Susan Fried and Paul Pilch, ARC Directors

REGENERATIVE MEDICINE: BU iPS Cell Bank
Drs. Darrell Kotton, Gustavo Mostoslavsky and George Murphy, ARC Directors

MITOCHONDRIAL DYNAMICS IN HEALTH AND DISEASE
Drs. Orian Shirihai and Andrea Havasi, ARC Directors
<table>
<thead>
<tr>
<th>Affiliated ARC/ Director</th>
<th>Name of Awardees</th>
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<tbody>
<tr>
<td>(F) Sex Differences in Adipose Tissue Regeneration ARC / Co-Directors: Susan Fried, Paul Pilch</td>
<td>Tamar Aprahamian (Assistant Professor)</td>
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<td>(F) Protein Trafficking &amp; Neurodegenerative Disease ARC / Director: Lindsay Farrer</td>
<td>Gyungah Jun (Research Assistant Professor)</td>
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<td>(F) Mitochondria ARC / Co-Directors: Orian Shirihai, Andrea Havasi</td>
<td>Marc Lises (Post Doc)</td>
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<tr>
<td>(F) Regenerative Medicine ARC / Director: Darrell Kotton Co-Directors: Gustavo Mostoslavsky and George Murphy</td>
<td>Cesar Sommer (Post Doc)</td>
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ARCs Awarded Continued Funding for 1.1.2013 – 12.31.13:
MOLECULAR, BIOMECHANICAL, AND GENETIC MECHANISMS OF ARTERIAL STIFFNESS
Drs. Richard A. Cohen and Kathleen Morgan, ARC Directors

Mitchell et al., Circulation, 2011
ARCs Awarded Continued Funding for 1.1.2013 – 12.31.13: NANOThERAnOSTIC PLATFORMS FOR CANCER AND VASCULAR DISEASE
Drs. Victoria Herrera, Joyce Wong, Mark Grinstaff and Karl Karlson, ARC Directors
ARCs Awarded Continued Funding for 1.1.2013 – 12.31.13:
CALCIUM HOMEOSTASIS IN HEALTH AND DISEASE
Drs. Victoria Bolotina and Mike Kirber, ARC Directors
## Metrics: November 2009-December 2012

<table>
<thead>
<tr>
<th>Evans Center Metric: November 2009- November 2012</th>
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<tbody>
<tr>
<td>10 ARCs</td>
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<td>TOTALS</td>
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* Core participants include ARC funded members, while the total number of ARC members of Evans Center members is greater.
!!!!!New ARCs Funded for 1.1.2013 – 12.31.13!!!!!

DIABETES STUDIES IN PATIENTS UNDERGOING BARIATRIC SURGERY
Drs. Neil Ruderman, Caroline Apovian and Konstantin Kandror, ARC Directors
(Goal: Towards developing a BMC Center for Basic Research related to BARIATRIC SURGERY)

COMPUTATIONAL GENOMIC MODELS OF ENVIRONMENTAL & CHEMICAL CARCINOGENICITY
Drs. Stefano Monti and David Sherr, ARC Directors
RESEARCH: Ongoing Plans

Content (new ARC directions):
- The Metabolic-Cancer connection (aided by the new Metabolomics Core)
- Health services and outcomes research center at BUMC (Allan J. Walkey; David Center)

Logistics:
- Explore Fusion of some conceptually related New and Graduated ARCs
- ARC Affiliates: investigators from Warwick University, UK
Education

The Boston University Cross-Disciplinary Training in Nanotechnology for Cancer (XTNC) (9/2011--)

provides stipends, tuition support, laboratory and travel budget and training to graduate students and postdocs whose interdisciplinary research uses nanotechnology to understand the properties of cancer cells and to discover and develop research tools, diagnostic tools, and therapeutic agents that will reduce suffering and death due to cancer.

The application process is described at http://nano-cancer.bu.edu/education/apply
Education

• Two Interdisciplinary Graduate Courses *(K. Ravid, Director or co-Director)*

• Principals in Nanomedicine (third year)

• Biological Core Technologies

• Plans: **Master Program in Nanomedicine**, in collaboration with the Nanoscience Center
EDUCATION: Co-Sponsored Thematic Seminar Series

2013 Spring Thematic Seminars co-sponsored by the Evans Center, the Department of Biochemistry and the CTSI

Non Coding RNA in Health and Disease

First Speaker: Dr. Philip Sharp, Nobel Laureate
April 3, 2013
EDUCATION: Research Retreats Day

1. Monday, September 20, 2010
   9a – 3p, Hiebert Lounge
   Initial Reports and Celebration of New ARC Initiatives

2. Tuesday, September 20, 2011
   8:30a – 3p, Museum of Science

3. Friday, October 5, 2012
   8:30a – 1p, 650 Albany St., X714&715
   Part of DOM Centennial Celebration

4. 2013: potentially at CR campus and BUSM