Newsletter
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EVANS CENTER
FOR INTERDISCIPLINARY
BIOMEDICAL RESEARCH

Boston University Interdisciplinary Biomedical Research Office BU IBRO
www.bu.edu/research/ibro

For your calendar: March 28, 2024; Research Retreat

https://www.bumc.bu.edu/evanscenteribr/2023/10/23/researchers-forum-research-retreat/

Research Retreat organized by the DoM **Researchers Forum| 10a-3p | 655 Commonwealth Ave |** Computer & Data Sciences Center **| All DoM faculty are invited (basic/translational/clinical investigators)**
Department of Medicine Researchers Forum (RF) *Initiated in 2022 by the* ***Evans Center for Interdisciplinary Biomedical Research; RF Co-directors:*** *Drs. Karen Jacobson, George Murphy & Francesca Seta* and *mentored by Drs. Katya Ravid & David Salant -Admin. Assistant to the RF: Robin MacDonald*

Watch our announcements for upcoming other events as posted on our website

The Evans Center for IBR, in collaboration with OTD and the CTSI is pleased to announce the 2023-2024 Inaugural

Biomedical Innovation and Technology ARC (BIT-ARC)

"Developing an artificial intelligence digital pathology diagnostic tool for proteinuric kidney disease"

Directors: Drs. Weining Lu* *(primary contact)*,
Chao Zhang, Joel Henderson, William Tomlinson, and Vijaya Kolachalama

A new round of solicitation of applications will be announced in late 2024

A spot-light on Alzheimer Desease Research ARCs and Faculty

Congratulations! on Recent Recognitions

Precision Medicine ARC Program

Dr. Rhoda Au

Receives Melvin R. Goodes Prize for Excellence in Alzheimer's Drug Development

Dr. Lindsay Farrer

Recently awarded a $13.7 million grant from NIH, this team is using whole genome sequencing and other approaches to identify genetic factors for Alzheimer's disease in Jews currently living in Israel — who trace their ancestors to southern Spain and locations in the Middle East and North Africa (MENA) and Arab citizens of Israel.

Dr. Vijaya Kolachalama

Won the Publication of the Year award at AAIC 2023 for this publication:

Qiu et.al., Nat Commun. 2022 20;13(1):3404

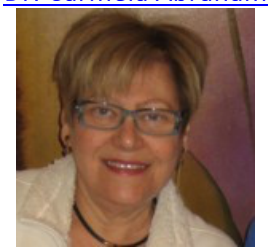
Multimodal machine learning for dementia

ARC collaboration with 10+ members

Listen to their Podcast on neurologicalresearch:

A new Alzheimer's monoclonal antibody treatment shows promising results: 'Hopefully more effective approach' Lindsay A. Farrer, PhD

Dr. Carmela Abraham



Prof Emerita, Carmela Abraham, a creative member of an ARC led by Dr. Lindsay Farrer, and a widely recognized expert in Alzheimer Disease Research, was welcomed by Advantage Therapeutivs Inc. as its Chief Scientific Officer.

Congratulations

Shining Light on ARCs 2023; DoM Evans Days, October 19, 2023

(Please visit the above link bringing you to the program)

Drs. D. Salant and K. Ravid introduced the Inaugural **David Coleman Prize winner**, Dr. Anica Law
"Determining Destinies: Understanding and Shaping Outcomes of Critical Illness"

David L. Coleman
Emeritus Professor of Medicine

2023/2024 ARCs

1. **Musculoskeletal Health (MHet) ARC** / Directors: Paola Divieti Pajevic, David Felson, LaDora Thompson
2. **Tuberculosis Interdisciplinary Approach to Research Alliance (TIARA) ARC** / Directors: Karen Jacobson, Charles Horsburgh, Laura White
3. **Respiratory Viruses: A Focus on COVID-19** / Director: Markus Bosmann; Co-Director: Mohsan Saeed
4. **A Multi-Disciplinary Program to Identify Predictors of Efficacy and Resistance to Cancer Checkpoint Inhibition (PIPER-C ARC)** / Co-Directors: Matt Kulke, Evan Johnson, David Sherr, Gerald Denis
5. **Mobile and Electronic (ME)-Health ARC Program** / Director: Belinda Borrelli; co-Directors: Joanne Murabito, Daniel Fulford
6. **Precision Medicine for Alzheimer Disease and Related Disorders ARC Program** / Co-Directors: Lindsay Farrer, Rhonda Au, Alice Cronin-Golomb
7. **Thrombosis and Hemostasis ARC Program** / Co-Directors: Vipul Chitalia, Katya Ravid, Jean Francis
8. **Fibrosis ARC Program: Connecting Tissues and Investigators** / Co-Directors: Bob Varelas, Maria Trojanowska, Irving Bigio

New Pre-ARC in development

Pre-ARC on Bridging Basic and Clinical Science to Reduce the Harms and Consequences of Persistent or Risky Substance Use (SUD Pre-ARC) / co-Leaders: Alexander Walley, General Internal Medicine; Kathleen Kantak, Psychological and Brain Sciences; Venetia Zachariou, Pharmacology & Experimental Therapeutics, Physiology & Biophysics

Steming from the opportunity to foster collaboration among the continuum of nationally recognized clinical and basic science researchers from various schools and departments across Boston University campuses and geared towards understanding the persistent or risky use of addictive substances (i.e., alcohol or other licit and illicit substances), faculty teams are forming around resources from the *Brain Tissue Repository, the Animal Science Center Breeding Programs, and existing clinical human cohorts, data, and sample repositories*.

Interested Faculty please contact the pre-ARC leaders and/or Robin MacDonald [remac@bu.edu]

Representative ARCs' Recent Discoveries

Tuberculosis Interdisciplinary Approach to Research Alliance (TIARA) ARC:
Myers B, Carney T, Rooney J, Malatesta S, Ragan EJ, **White LF**, Natcheva H, Bouton TC, Weber SE, Farhat M, McIlleron H, Theron D, Parry CDH, **Horsburgh CR**, Warren RM, **Jacobson KR**. Smoked drug use in patients with TB is associated with higher bacterial burden. Int J Tuberc Lung Dis 2023;27:444-50.

Musculoskeletal Health (MHet) ARC:
Perazza LR, Gower AC, Brown-Borg HM, **Pajevic PD, Thompson LV.** Protectin DX as a therapeutic strategy against frailty in mice. Geroscience. 2023 Apr 14. doi: 10.1007/s11357-023-00789-3. Epub ahead of print.PMID:37059838

PIPER-C ARC:
Amr Radwan, Chinmay Jani, …, **Matthew Kulke,** Umit Tapan. Association of immune-related adverse events and improved treatment outcomes across race/ethnicity in a diverse patient population. Journal of Clinical Oncology 2023 41:16_suppl, e21220

COVID-19 ARC Program:
Chen DY, Chin CV, …, **Saeed M**. Spike and nsp6 are key determinants of SARS-CoV-2 Omicron BA.1 attenuation. *Nature*. 2023 Mar;615(7950):143-150. doi: 10.1038/s41586-023-05697-2.

Fibrosis ARC Program:
Pilvar A, Mehendale AM, Karrobi K, El-Adili F, **Bujor A, Roblyer D.** Spatial frequency domain imaging for the assessment of scleroderma skin involvement. Biomed Opt Express. 2023 May 25;14(6):2955-2968. doi: 10.1364/BOE.489609. PMID: 37342706; PMCID: PMC10278615.

Precision Medicine ARC Program:
Zhang X,…, Au R, Farrer LA. Midlife measures of high-density lipoprotein and fasting glucose are associated with late-onset Alzheimer disease. Alzheimer Dement. 2023; 19:181-193. PMID: 35319157

ME-health ARC Program:
Shankar, D., **Borrelli, B.,** Cobb, V., **Quintiliani, L.M., Palfai, T.,** Weinstein, Z., Bulekova, K., & Kathuria, H. (2022). Text-messaging to promote smoking cessation among individuals with opioid use disorder: quantitative and qualitative evaluation. *BMC Public Health, 22*(1), 1-12. PMID: 35387648

Thrombosis ARC Program:
Martens KL, Li A, La J, …, Gaziano JM, Lotfollahzadeh S, **Chitalia V**, **Ravid K**, **Fillmore NR**. Epidemiology of Cancer-Associated Venous Thromboembolism in Patients With Solid and Hematologic Neoplasms in the Veterans Affairs Health Care System. JAMA Netw Open. 2023 Jun 1;6(6):e2317945. doi: 10.1001/jamanetworkopen.2023.17945. PMID: 37306999; PMCID: PMC10261992.

Leaders of the Thrombosis ARC and of the AHA-funded center CAT-HD Cancer-Associated Thromboembolism as affected by Health Disparities are hosting an AHA Strategically Focused Research Network Meeting at Boston University on May 14, 2024 (8am to 4pm; 650 Albany St. building X-714). For research or logistic details contact Dr. Katya Ravid or Robin MacDonald.

Visit our web sites

ECIBR: https://www.bumc.bu.edu/evanscenteribr/ **IBRO:** https://rb.gy/ybd8r

Address inquiries related to logistics to: Robin MacDonald, at remac@bu.edu

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