24th Annual Celebration
November 26, 2019

Eleanor and Miles Shore Faculty Development Awards Program

HARVARD
MEDICAL SCHOOL

HARVARD
School of Dental Medicine

Eleanor and Miles Shore
Faculty Development Awards Program
2019 Annual Reception

4:00 p.m. **Arrival & Light Refreshments**

4:30 p.m. **Welcome**
Carol K. Bates, MD
Associate Dean for Faculty Affairs

George Q. Daley, MD, PhD
Dean of the Faculty of Medicine

Historical Perspective
Nancy J. Tarbell, MD
C.C. Wang Professor of Radiation Oncology
Massachusetts General Hospital

Presentation of Awards
Carol K. Bates, MD
Associate Dean for Faculty Affairs

George Q. Daley, MD, PhD
Dean of the Faculty of Medicine

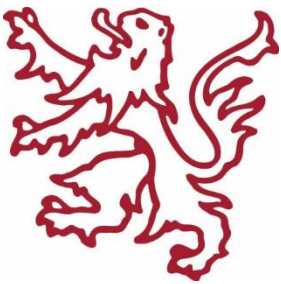
5:15 p.m. **Reception**

History of Program

In 1995, The Fiftieth Anniversary Program for Scholars in Medicine was established to celebrate the 50th anniversary of the admission of women to Harvard Medical School (HMS) and to acknowledge the important contributions of women to the School. As part of this celebration, a fellowship program was established to help junior faculty, women and men, at the point in their careers when they must teach, do research, compete for grants, publish, or practice (if a clinical faculty member) at the same time they may be assuming increased family or other responsibilities.

In 1996, recipients of the first ten awards were honored in celebration. The program was renamed in 2004 to honor the efforts of Dr. Eleanor Shore, former Dean for Faculty Affairs, and Dr. Miles Shore, Bullard Professor of Psychiatry, Emeritus, on behalf of the 50th Anniversary Program for Scholars in Medicine.

Today, the program continues to honor the Shores' pioneering efforts and lasting dedication to the development of junior faculty as the Eleanor and Miles Shore Faculty Development Awards Program (Shore Program). As we embark on the 25th anniversary of the program in 2020, we are proud of the support of over 60+ sponsored awards to our faculty.



Hermioni L. Amonoo, MD
Instructor in Psychiatry
Brigham and Women's Hospital

Brigham and Women's Hospital Faculty Career Development Award

Mentor: Jeffrey C. Huffman, MD

Project Title: A Positive Psychology Intervention for Hematopoietic Stem Cell Transplant Patients- A Proof of Concept Trial

Project Description: Hematopoietic stem cell transplantation (HSCT) is a potentially lifesaving treatment for some blood cancers. However, it often comes with intense complications that wear patients down resulting in follow-up care challenges. Hence, we have developed a positive psychological intervention to help patients feel more fulfilled, engaged, and hopeful, despite their treatment challenges. Positive psychology programs have been associated with better health outcomes for patients with other illnesses, but this has not yet been studied in HSCT patients. If our intervention is feasible and acceptable in HSCT patients, it will be an important new intervention that could substantially and positively impact their recovery.

Dusica Bajic, MD, PhD
Assistant Professor of Anaesthesia
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: Onur Afacan, PhD

Project Title: Impact of Infant Rat Morphine Administration on Immediate and Long-Term In-Vivo Brain Size Using MRI

Project Description: Prolonged sedation, as part of the pediatric standard of clinical care, is associated with opioid dependence in youngest of patients. It is not known how such prolonged treatment in infancy affects immediate brain development, nor the long-term effects. Using structural MRI analysis in an established infant rat model of prolonged morphine administration, our most recent back-translational preliminary data show decreased total brain volume following prolonged morphine administration compared to saline-treated and naïve infant rats. This study would be the first to characterize volumetric vulnerability of the whole brain and its parts as an early marker of neurodevelopmental sequelae after prolonged morphine administration in infancy.The overarching aim of this project is to determine the relationship between prolonged opioid administration and regional brain size in the early period of brain development that may potentially drive future changes in pediatric clinical care.

Amanda W. Baker, PhD
Assistant Professor of Psychology in the Department of Psychiatry
Massachusetts General Hospital

Harvard Medical School Fellowship in honor of Nancy J. Tarbell, MD

Mentors: Luana Marques, Ph.D; Jerrold F. Rosenbaum, MD

Project Title: Clinical and Psychophysiological Biomarkers of Panic Disorder

Project Description: Panic disorder (PD) is a chronic and disabling condition. While cognitive behavioral therapy is an effective treatment, more than half of patients do not improve or return to treatment. No reliable predictors of treatment response have been identified. Biological measures may be able to more consistently predict response over self-reported predictors, but little research has examined such biomarkers of response for PD. This study aims to examine the physiological correlates of PD as a baseline predictor of panic severity and a correlate of clinical improvement at post-treatment. This is an innovative step towards identifying biomarkers of PD relevant to treatment.

Daniel S. Balk, MD
Instructor in Emergency Medicine, Part-time
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Emergency Medicine Fellowship

Mentor: Beatrice Hoffmann, MD, PhD

Project Title: The CLUTCH Exam: Cardiac and Lung Ultrasound Transthoracic Chest pain Heuristic in the evaluation of Emergency Department patients presenting with chest pain

Project Description: Chest pain is a common patient complaint that can be difficult to evaluate, as there are many potential causes. I am proposing a novel diagnostic algorithmic approach to chest pain using ultrasound. Ultrasound has proven utility in evaluating specific causes of chest pain, but there has never been an algorithm addressing the broad diagnosis of chest pain. This novel approach is rapid, noninvasive, can be performed at the bedside, and requires no specialized resources beyond the ultrasound machine itself. This has potential to change how we evaluate patients with chest pain in the emergency department.

Satchit S. Balsari, MBBS
Assistant Professor of Emergency Medicine
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Emergency Medicine Fellowship

Mentors: Richard Cash, MD; Tarun Khanna, PhD

Project Title: One million evacuees: Impact on health and livelihoods

Project Description: In August 2018, the state of Kerala, India was affected by unusually heavy rainfall, resulting in the evacuation of one million people, and causing an estimated 3.7 billion dollars in damage. In collaboration with the affected communities themselves, our team conducted an exhaustive survey of 5000 households (covering approx 30,000 people) to study the impact of the disaster on the health and livelihoods. Early findings have been submitted to state agencies to influence future planning and response.

Johanna Calderon, PhD
Assistant Professor of Psychiatry
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: David C. Bellinger, PhD; Jane W. Newburger, MD

Project Title: Autism Spectrum Traits in Congenital Heart Disease: Impact of Neuropsychiatric Morbidities and Modifiable Risk Factors

Project Description: Major advances in operative and medical care have substantially improved survival of children born with congenital heart disease (CHD). The resulting increase in this population has exposed a critical public health issue regarding their long-term neurodevelopmental morbidities. This project aims to characterize core autism spectrum traits in children with CHD who underwent open-heart surgery infancy, compared to a control group of children with minor CHD who did not require cardiac surgery. We hope to identify potential associations between autistic traits and core neurocognitive and psychiatric comorbidities such as anxiety disorders in children with CHD.

Jiaxuan Chen, PhD
Instructor in Surgery
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Surgery Fellowship

Mentor: Elliot L. Chaikof, MD, PhD

Project Title: Novel AHR agonists for the treatment of inflammatory bowel disease

Project Description: Recently invented drugs in the investigator's laboratory have demonstrated potential as disease-modifying therapeutics for Inflammatory Bowel Disease (IBD). Mechanism studies revealed drugs targeted immune regulator AHR and protected intestine via up-regulation of protein IL-22. Interestingly, alternative AHR ligands were found to suppress IBD via IL-22 unrelated anti-inflammatory mechanism. We hypothesize such difference is caused by ligand dependent conformational change of AHR and subsequent change in AHR signaling pathway. To test this hypothesis, we propose studies including high-throughput screening, computational modeling and proteomic profiling. Knowledge learned will aid the rational design of AHR targeting drugs for mechanism specific modulation of IBD.

Naida M. Cole, MD
Instructor in Anaesthesia
Brigham and Women's Hospital

Brigham and Women's Hospital Faculty Career Development Award

Mentor: Brian T. Bateman, MD

Project Title: Second-line Uterotonics in Postpartum Hemorrhage (PPH): A Randomized Clinical Trial

Project Description: This project studies postpartum bleeding, a common and potentially life-threatening complication of childbirth. When first-line management of postpartum bleeding fails, there is currently no consensus among medical professionals on the best second-line treatment option. This study addresses the problem by studying the two most commonly used second-line drugs, methylergonovine and carboprost, in the prevention and treatment of postpartum bleeding following a cesarean section. This project will be the first prospective, randomized, double-blinded trial to compare the clinical efficacy of these two drugs.

Paul Anthony McGreggor Crowley, MD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital Division of Gastroenterology and Nutrition Shore Grant Fellowship

Mentor: Isaac S. Kohane, MD, PhD

Project Title: Deep Learning-based Detection of Appendicitis and Necrotizing Enterocolitis

Project Description: Our group uses Deep Learning, a subfield of Artificial Intelligence, to create disease-detection algorithms for two pediatric diseases, appendicitis and necrotizing enterocolitis. We have created the most complex multimodal databases for both of these diseases, and using plain film, ultrasound, and cross-sectional imaging from patients in the database, we are now training neural networks to aid in diagnosis and clinical decision-making. Our goal is to integrate detection algorithms in-line with point-of-care ultrasound to increase diagnostic accuracy, decrease time-to-treat and perforation rates, and decrease false-positive surgical rates in children.

Avika Dixit, MBBS, MPH
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: Maha R. Farhat, MD

Project Title: Insights into the geographical distribution of drug resistant tuberculosis using large scale genomic data

Project Description: The purpose of this proposal is to use publicly available data to inform tuberculosis (TB) control strategies. First, we will use thousands of TB bacterial genomes shared by researchers worldwide, to generate country-specific estimates of resistance to antibiotics in TB that are currently unavailable. With machine learning methods, we will detect mutations in these genomes that are associated with laboratory-determined drug resistance (DR). This will help in clinical decision making and preparing drug supply for treatment of MDR-TB. Second, we will perform evolutionary analysis of these genomes to identify when DR arose in different countries and put it in the context of national control efforts. Third, we will characterize the compensatory mutations that may contribute to continued circulation and transmission of fluoroquinolone resistance in TB.

Kate E. Dorney, MD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital Pediatric Emergency Medicine Faculty Development Award

Mentor: Joshua Nagler, MD

Project Title: Using Simulation to Assess Leadership Development in Pediatric Emergency Medicine Fellows

Project Description: Leadership skills, especially during critical resuscitations, are essential for pediatric emergency medicine (PEM) physicians. A physician's non-clinical leadership skills, such as effective communication and situational awareness, have been shown to impact optimal patient care delivery. The development and refinement of clinical leadership skills is an important aspect of PEM fellowship. We will apply a team evaluation framework to videotaped simulated resuscitations led by our PEM fellows to evaluate the change over time in leadership skills that develops throughout fellowship. We will identify characteristics of success and opportunities for improved leadership which will inform a leadership development curriculum for fellowship.

Andrea Edlow, MD
Assistant Professor of Obstetrics, Gynecology and Reproductive Biology
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentors: Staci Bilbo, PhD; Jill M. Goldstein, PhD

Project Title: Fetal Brain-Placental Immune Crosstalk in Maternal Obesity

Project Description: Maternal obesity has been linked to IQ deficits and learning disabilities, but the underlying mechanisms remain unclear. Microglia, the immune cells of the brain, may play a role. Obesity is a state of chronic low-level immune activation, and both the placenta and the fetal brain are inflamed in obese pregnancy. How placental inflammation is related to brain inflammation still needs to be elucidated. We bridge this gap by examining a population of immune cells in the placenta (Hofbauer cells) that have the same embryonic origin as the immune cells in the brain (microglia). We will determine if maternal obesity programs both types of immune cells to overproduce pro-inflammatory cytokines. We will determine whether Hofbauer cells can be used as a more accessible biologic surrogate for fetal brain microglial priming. We will use an innovative transgenic mouse model that eliminates pro-inflammatory signaling in Hofbauer cells and fetal microglia to determine if this ablation can rescue cognitive deficits in offspring.

Olivia M. Farr, MD
Instructor in Medicine
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Medicine Fellowship

Mentor: Christos Mantzoros, MD

Project Title: Neurologic impacts of artificial sweeteners in the context of diet sodas on obesity

Project Description: Artificial sweeteners, in the context of sodas, have been linked with obesity in epidemiological studies. However, whether these effects may be causal and/or potential mechanisms of this relationship are not yet known. Common hypotheses include that artificial sweeteners trigger the same responses as sugar but without the calories, leading an individual to seek more calories elsewhere. This proposal seeks to examine central (brain responses to food, neurocognition) mechanisms by which artificial sweeteners may trigger hunger responses.

Zhongjie Fu, PhD
Assistant Professor of Ophthalmology
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: David G. Hunter, MD, PhD; Lois E.H. Smith, MD, PhD

Project Title: Metabolic Support for Photoreceptor Health

Project Description: Abnormal metabolism of retinal photoreceptors (rods for night vision and cones for color vision) causes blindness in many eye diseases (in which abnormal lipid use is also shown) in all age groups, including retinopathy of prematurity, retinitis pigmentosa, diabetic retinopathy and age-related macular degeneration. Photoreceptors require constant fuel supply from their surrounding supporting cells. My research focus is to identify how lipid use in one of the supporting cells (Müller glia) regulates retinal function. Findings from this study will fill the knowledge gap of photoreceptor energy sources and help us understand further about the basic reasons of photoreceptor loss in blindness.

Eric Gaier, MD, PhD
Instructor in Ophthalmology
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: Mark Bear, PhD; David G. Hunter, MD, PhD

Project Title: Exploiting Principles of Timing-Dependent-Synaptic Plasticity to Treat Amblyopia

Project Description: Through this project, I aim to apply a well-established principle of synaptic plasticity (how synapses change their strength) in an effort to treat amblyopia ("lazy eye"), the most common cause of visual impairment in children. This principle, termed spike-timing-dependent synaptic plasticity, relates to the relative timing of inputs onto a given neuron. Likewise, we can manipulate the relative timing of visual inputs to each eye using a 3D monitor. I hypothesize that providing a timing advantage to the deprived (amblyopic) eye over the fellow eye of a mouse will facilitate synaptic strengthening and promote recovery of visual function.

Lakshmi Ganapathi, MBBS
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: Sion K. Harris, PhD; Kenneth H. Mayer, MD

Project Title: Determinants of Risk Behaviors and Utliization of HIV Prevention Services Among Young People in High-Risk Populations in India

Project Description: India's HIV epidemic is fastest growing in young people who inject drugs (PWID) and young men who have sex with men (MSM). However, comprehensive services addressing the needs of young people in these key populations, and research that understands their unique risks and vulnerabilities are significantly lacking. My research project aims to address these gaps. Among young PWID, through qualitative research, I will explore injection initiation experiences and, barriers and enabling factors to receive harm reduction services. Among young MSM, using quantitative methods, I will explore the relationship between sexual identity disclosure, high-risk behaviors and receipt of HIV services.

Jennifer L. Gibbs, PhD, DDS
Assistant Professor of Restorative Dentistry and Biomaterials Sciences
Harvard School of Dental Medicine

Harvard School of Dental Medicine Fellowship in honor of Aina M. Auskaps, DMD

Mentor: German O. Gallucci, DMD

Project Title: Risk Factors for Severe or Prolonged Pain After Dental Surgery

Project Description: Research on post-surgical pain has determined that people undergoing seemingly similar surgeries can have widely variable pain responses, including persistent pain. This goal of this project is to study acute post-surgical pain trajectories and identify risk factors for severe or prolonged pain after a common dental surgery. We will recruit 104 patients undergoing apicoectomy surgery to study and measure pre-operative, intra-operative and post-operative pain. We will also determine which proportion of this cohort have persistent pain 6 months after the surgery. This study will begin to elucidate how acute surgical pain relates to persistent pain after dental surgery.

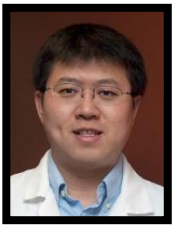
Matthew Grunert, MD
Instructor in Anaesthesia
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Anesthesiology, Perioperative and Pain Medicine Faculty Development Fellowship

Mentor: Lawrence C. Tsen, MD

Project Title: Environmental Sustainability in the Operating Room

Project Description: The health care sector accounts for roughly 10% of all greenhouse gas emissions in the United States. Operating rooms are among the highest waste producing and energy consuming areas of the hospital, and sustainability programs have shown significant environmental and cost benefits at other institutions. Our project aims to study the effects of several educational interventions on the environmental impact of anesthesia staff and residents. Additionally, we will perform life cycle assessments of several commonly used perioperative items to determine their overall environmental impacts compared to potential alternatives.



Peng Guo, PhD
Instructor in Surgery
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: Marsha Moses, PhD

Project Title: Engineering CD24 antibody-drug conjugate for metastatic osteosarcoma

Project Description: Osteosarcoma (OS) is the third leading cause of cancer–related deaths in American children. A central problem in treating OS is the lack of effectively targeted therapeutics. We have recently identified CD24 as a novel molecular target for OS. In this project, we will develop CD24 antibody-drug conjugate (ADC) as a novel immunotherapeutic for precisely eradicating lung metastases of OS while sparing healthy tissues and organs. We believe that this project will greatly increase our capability to combat metastatic OS in a safer and more precise manner, which can improve OS patients' survival and quality of life.

Lauren E. Hanley, MD
Assistant Professor of Obstetrics, Gynecology and Reproductive Biology
Massachusetts General Hospital

Dorothy Rackemann Fellowship established by the Vincent Memorial Hospital/Massachusetts General Hospital for Research in Reproductive Biology

Mentor: Anjali J. Kaimal, MD

Project Title: Comprehensive Breast and Lactation Curriculum for Harvard Medical School Undergraduate and Graduate Medical Education

Project Description: Breastfeeding rates in the US are climbing. However, more than half of women do not accomplish their infant feeding goals, which increases the risks of adverse health outcomes for women and children. This project will create a revised curriculum for Harvard Medical Students and trainees so that they may appropriately care for women and families in a comprehensive fashion with regards to breast health. The curriculum will involve the use of simulation to better understand normal physiology as well as pathology of the breast. Finally, the project will create and implement a formal policy for lactating trainees and students of HMS who wish to express milk during working or school hours.

Elena B. Hawryluk, MD, PhD
Assistant Professor of Dermatology
Massachusetts General Hospital

Massachusetts General Hospital Department of Dermatology Fellowship

Mentor: Hensin Tsao, MD, PhD

Project Title: Risk Factors for Pediatric Atypical Nevi

Project Description: Concern over melanoma prompts parents and children to notice and worry about new and changing moles (also termed nevi), which is prompting significant testing with biopsies and procedures that are both morbid and costly. My goal is to increase our understanding of pediatric nevi, including natural evolution over time, so that clinicians are better equipped to know whether skin biopsy is necessary, and to better identify lesions at risk for melanoma. The clinical features and risk factors for development of atypical nevi in pediatric patients are poorly understood, in addition to how they relate to the development of melanoma. I propose to study children and adolescents with atypical nevi and analyze their risk factors, to identify relevant patterns and improve our ability to identify atypical nevi.

Frances A. High, MD, PhD
Instructor in Pediatrics
Massachusetts General Hospital

Massachusetts General Hospital Department of Surgery Faculty Development Fellowship

Mentor: Patricia Donahoe, MD

Project Title: Genetic Etiology of Congenital Diaphragmatic Hernia and Pulmonary Hypoplasia

Project Description: This aim of this project is to study the genetic causes of congenital diaphragmatic hernia (CDH), a common and severe birth defect characterized by abnormalities of the diaphragm and lungs. Although we have good evidence that genes play an important role, we don't understand the cause of CDH in most patients. We will be using cutting-edge genetic technologies including genome mapping, RNA sequencing, and whole genome sequencing to study genetic changes in a large cohort of patients with CDH. The ultimate goal is to understand the mechanism by which CDH occurs and form a groundwork for new therapies.

Kelly E. Irwin, MD
Assistant Professor of Psychiatry
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentors: Andrew A. Nierenberg, MD; Elyse R. Park, PhD

Project Title: Bridge: Proactive Psychiatry Consultation and Case Management for Patients with Cancer

Project Description: Individuals with serious mental illness experience markedly increased cancer mortality due to inequities in cancer treatment. Psychiatric care at the time of cancer diagnosis may prevent disruptions in cancer care yet targeted interventions have not been developed or tested for this population. A collaborative care intervention combining proactive psychiatry consultation and case management has the potential to decrease disparities in cancer treatment and improve cancer outcomes in this underserved population. We are conducting a randomized trial of Bridge: person-centered care for patients with serious mental illness and cancer.

Nezihi Murat Karabacak, PhD
Instructor in Surgery
Massachusetts General Hospital

Massachusetts General Hospital Department of Surgery Faculty Development Fellowship

Mentors: Cenk Ayata, MD; Mehmet Toner, PhD

Project Title: Circulating brain endothelial cell-based diagnostics in acute brain injury using microfluidics

Project Description: Our pathophysiological understanding, diagnosis and treatment of traumatic brain injury (TBI) have long suffered from a lack of biomarkers. Because the brain is a highly vascular organ, we hypothesize that TBI leaves "footprints" in the blood by shedding brain endothelial cells into the systemic circulation. In this project, we propose to develop and implement novel microfluidic technology to capture ultra-rare circulating brain endothelial cells alive and unaltered as a biomarker of TBI in animal models, enabling a wide range of mechanistic, diagnostic, prognostic and therapeutic investigations.

Shoko Kimura, MD
Instructor in Surgery
Massachusetts General Hospital

Massachusetts General Hospital Department of Surgery Faculty Development Fellowship

Mentor: James F. Markmann, MD, PhD

Project Title: Liver allograft tolerance induction by delayed donor bone marrow infusion

Project Description: The primary objective of this project is the first time application of mixed chimerism induced tolerance to a primate liver model as a prelude to clinical introduction.
HLA mismatched baboons will be used as both donors and recipients for allogeneic orthotopic liver transplantation. All recipients will be initially treated with a standard triple-drug immunosuppressive regimen. The recipients will then undergo non-myeloablative conditioning and donor bone marrow transplantation (DBMT) at several (2-4) months after orthotopic liver transplant. After 1 month course of tacrolimus, the recipients will be immunosuppression free and examined to see whether they can achieve tolerance.

Joanna A. Korecka-Roet, PhD
Instructor in Psychiatry
McLean Hospital

McLean Hospital Fellowship

Mentors: Penelope J. Hallett, PhD; Ole Isacson, MD, PhD

Project Title: Regulation of ER calcium in Parkinson's Disease

Project Description: Calcium (Ca2+) signaling is essential for neuronal survival and was shown to be linked to Parkinson's Disease (PD) pathology. We previously found dysregulation in endoplasmic reticulum (ER) Ca2+ control in PD patient induced pluripotent stem cell (iPSC)-derived neurons carrying the LRRK2 G2019S mutation (Korecka et al., 2019, Stem Cell Reports), most prevalent mutation contributing to PD development. The aim of this project is to unravel the exact cellular signaling mechanism of this imbalance using PD patient LRRK2 G2019S iPSC-derived neurons and studding calcium channel recycling dynamics.

Jacqueline Lane, PhD
Instructor in Anaesthesia
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentor: Richa Saxena, PhD

Project Title: Genetic Basis of Extreme Circadian Rhythm Disorders

Project Description: Our bodies have a daily rhythm synchronized to our 24 hour day, called our circadian rhythm. There are health consequences when our circadian rhythm is out of synch with our environment often owing to shift work, jet lag, school and work schedules, and the presence of electric lights. An extreme form of circadian rhythm disruption happens in rare individuals with circadian rhythm disorders. In order to learn more about the genetics of circadian rhythm disorders, we are launching a new home-based study of circadian rhythm disorders. The Claflin Award will enable us to launch our study by developing a patient portal and developing circadian rhythm information kits for home use, as well as funding study staff positions. The findings from our study will benefit circadian disorder patients by allowing for the development of novel therapeutics for rare circadian rhythms disorders, increasing our understanding of the basic mechanisms of circadian biology in humans, and ultimately shedding light on how circadian rhythm dysregulation in the general population predisposes to associated chronic diseases.

Andrea Lanes, PhD
Assistant Professor of Obstetrics, Gynecology and Reproductive Biology
Brigham and Women's Hospital

Brigham and Women's Hospital Obstetrics and Gynecology Foundation Fellowship

Mentors: Elizabeth S. Ginsburg, MD; Catherine Racowsky, PhD

Project Title: Investigating treatment and perinatal outcomes among in vitro fertilization patients that used preimplantation genetic testing

Project Description: Patients that use in vitro fertilization (IVF) to assist with conception may use preimplantation genetic testing to screen embryos for aneuploidy or monogenic diseases prior to transfer. Among specific patient populations, the transfer of euploid embryos identified through preimplantation genetic testing may increase the implantation rate and decrease the miscarriage rate. In this study, we aim to investigate pregnancy characteristics and perinatal outcomes among IVF patients that used preimplantation genetic testing as compared to IVF treatment without the use of preimplantation genetic testing.

Laura Lehman, MD
Assistant Professor of Neurology
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: Patricia E. Grant, MD; Christine Mrakotsky, PhD

Project Title: Imaging and Cognitive Biomarkers in Children with Moyamoya

Project Description: Moyamoya is a disease affecting large arteries supplying the brain and surgery is the definitive treatment. In children with moyamoya these arteries become progressively smaller causing the child to present to medical attention with stroke, transient ischemic attack (TIA), seizure and/or headache. We do not know if children with moyamoya who present with TIA, a premonitory sign for stroke have decreased microstructure of the brain. In this study I will compare children with moyamoya who experience TIA to children with moyamoya who do not experience TIA using imaging to examine brain microstructure both pre- and post-surgery.

Loretta Sze-Mun Li, MD
Instructor in Pediatrics
Dana-Farber Cancer Institute

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: David M. Weinstock, MD

Project Title: Mechanisms of Resistance to Type I and Type II JAK2 Inhibitors in B-cell Acute Lymphoblastic Leukemia (B-ALL)

Project Description: In the lab, I study a high-risk subset of B-cell acute lymphoblastic leukemia (B-ALL) that is dependent on an enzyme called JAK2 for survival. The first FDA-approved JAK2 inhibitor is now in clinical trials for patients with B-ALL and additional targeted agents are in development. This project aims to study both genetic and non-genetic mechanisms of resistance to targeted JAK2 inhibitors in cell lines and mouse models. My hope is that this work will ultimately translate to new therapeutic strategies to overcome resistance.

Sharon M. Lutz, PhD
Assistant Professor of Population Medicine
Harvard Pilgrim Health Care Institute

Harvard Pilgrim Health Care Institute Department of Population Medicine's Robert H. Ebert, MD Fellowship

Mentor: Ann C. Wu, MD

Project Title: Mediated Effects of Rare Variants

Project Description: The goal of this project is to develop methods to analyze the mediated effect of rare genetic variants on the outcome of interest. A publicly available software package will be created to implement this approach that is user friendly and computationally efficient. This software package will be used to determine if rare variants are associated indirectly with pulmonary function through cigarette smoking in a population of current and former heavy smokers.

Milica Margeta, MD, PhD
Instructor in Ophthalmology
Massachusetts Eye and Ear

Massachusetts Eye and Ear Fellowship

Mentor: Oleg Butovsky, PhD

Project Title: The Role of APOE signaling in Microglia in Glaucoma

Project Description: Glaucoma is a progressive blinding disease characterized by loss of retinal ganglion cells and consequent visual field loss. This project will investigate the role of retinal neuroinflammation in glaucoma, with particular focus on microglia, the resident immune cells of the nervous system. We have found that APOE, a molecule genetically linked to Alzheimer's disease, age-related macular degeneration, and glaucoma, is produced by microglia in glaucoma and mediates harmful effects of microglia that contribute to retinal ganglion cell degeneration. By modulating microglial signaling in glaucoma we hope to ultimately develop novel neuroprotective treatments for this common blinding disease.

Oren J Mechanic, MD
Instructor in Emergency Medicine
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Emergency Medicine Fellowship

Mentors: Alexandra B. Kimball, MD; Richard E. Wolfe, MD

Project Title: Virtual Care to Improve Health Care Access and Reduce Costs

Project Description: Virtual care is a novel, innovative approach to provide medical care to patients from a remote setting. Over the past few years, its utilization has increased significantly. It has been suggested to be an inexpensive and accessible resource to patients. When compared to Primary Care, Urgent Care, and Emergency Departments, virtual care visits have the potential to benefit patients by increasing access to health care and identifying disease early. For our national health care system, virtual care may mend rising health care costs while reducing hospital's total medical expenditures.

Kenneth A. Michelson, MD
Assistant Professor of Pediatrics
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: Richard G. Bachur, MD; Jonathan A. Finkelstein, MD

Project Title: Complications of Serious Pediatric Emergency Conditions

Project Description: Children with serious emergencies face harm. We could better understand who is at risk for harms if we could measure and identify those harms in large healthcare databases. We will create a method to measure such harms.

Randy C. Miles, MD
Instructor in Radiology
Massachusetts General Hospital

Massachusetts General Hospital Department of Radiology

Mentor: Constance D. Lehman, MD, PhD

Project Title: Improving Radiologists' Mammographic Interpretive Performance through Artificial Intelligence: Creation of a Deep Learning Model to Reduce False Negative Examinations

Project Description: While accurate interpretation of mammograms is largely dependent upon interpreter experience, examinations may be intrinsically limited by patient factors that may contribute to cancers being missed (false negative mammogram). Deep learning, an approach to achieve artificial intelligence based on learning data representations, offers a paradigm of sophisticated techniques that may enhance radiologist performance by augmenting limitations in image perception by the human eye. We aim to develop a deep learning model that incorporates both imaging and clinical information to identify women at high risk of having a false negative mammogram, which may prevent delays in breast cancer diagnosis and treatment.

Deborah M. Mitchell, MD
Assistant Professor of Pediatrics
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentors: Mary L. Bouxsein, PhD; Madhusmita Misra, MBBS

Project Title: The effects of type 1 diabetes on bone health in children and adolescents

Project Description: Type 1 diabetes confers a 6-fold increase in the risk of hip fracture, but the underlying physiology of skeletal fragility in diabetes remains poorly understood. We have enrolled a cohort of children with and without diabetes and are following detailed measures of bone health over 2 years. Our goal is to better understand how and to what extent diabetes affects bone accrual and microarchitectural development in growing children and whether impaired bone formation during this critical period contributes to the lifelong elevated risk of fracture.

Anna M. Modest, MPH
Instructor in Obstetrics, Gynecology and Reproductive Biology
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Gynecology and Obstetrics Fellowship

Mentor: Michele Hacker, ScD

Project Title: Evaluating multiple mechanisms in the relationship between in vitro fertilization and ischemic placental disease

Project Description: There is evidence that women who undergo in vitro fertilization (IVF) are at higher risk for pregnancy complications such as preeclampsia, placental abruption, and small for gestational age infants; however, the reason for this is not well understood. This project would explore two possible explanations for this higher risk. First, we would determine whether the woman's immune system acts differently in IVF pregnancies, leading to differences in how the placenta attaches to the wall of the uterus, which can cause these complications. Second, we would explore whether having one versus more than one baby can explain these complications.

Ehren Nelson, MD
Instructor in Anaesthesia
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Anesthesiology, Perioperative and Pain Medicine Faculty Development Fellowship

Mentors: Christopher J. Gilligan, MD; James P. Rathmell, MD

Project Title: Simulation-Based Education for Interventional Pain Fellowship Training

Project Description: This project is the development of a novel simulation-based educational curriculum for teaching interventional procedures to trainees in pain management. Anesthesiologists have led the development of simulation research and education since it's introduction into the medical field. This is the first such simulation curriculum for pain management physicians.

Angela S. Nichols, MD
Instructor in Anaesthesia
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Anesthesiology, Perioperative and Pain Medicine Faculty Development Fellowship

Mentor: Lawerence C. Tsen, MD

Project Title: Environmental Sustainability in the Operating Room

Project Description: This project aims to improve environmental sustainability in the operating room in hopes of reducing our hospital's carbon footprint. As highlighted by recent articles in the New England Journal of Medicine, the health care sector accounts for roughly 10% of all greenhouse gas emission in this country, and a massive amount of solid waste. Our goal is to reduce anesthetic greenhouse gas emissions, improve departmental purchasing decisions related to single-use products, expand OR recycling programs, reduce regulated medical waste, and create a multidisciplinary sustainability committee.

Qi Cui Ott, MD
Instructor in Anaesthesia
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Anesthesia John Hedley-Whyte Research Fellowship

Mentor: Stephanie B. Jones, MD

Project Title: Gender Bias and Disruptive Behavior in the Perioperative Setting

Project Description: This project will measure and address implicit gender bias in the perioperative setting at BIDMC. Incidence of bias will be assessed via survey and observational methods. A multi-professional work group will develop and utilize multimodal training materials including information-sharing, self-assessments, communication workshop, and policy development to train clinicians around this area. The effectiveness of the educational outreach will be assessed by before and after surveys. The work group will propose a new strategy in setting standards for professional behavior, educating staff on the standards, monitoring behavior, and remediation.

Franziska Plessow, PhD
Assistant Professor of Medicine
Massachusetts General Hospital

Massachusetts General Hospital Department of Medicine Fellowship

Mentor: Elizabeth A. Lawson, MD

Project Title: Sustained oxytocin administration, cognitive control, and reward responsiveness in human obesity

Project Description: Obesity represents a major public health problem in need of effective, tolerable treatments. Recent studies indicate that administration of the neuropeptide oxytocin reduces caloric intake and weight in human obesity, however, the underlying mechanisms are unknown. This study seeks to test the novel hypothesis that in individuals with obesity, oxytocin reduces caloric intake in part by improving cognitive control over impulsive actions, impulsive choices, and compulsivity and reducing responsiveness to reward, promoting behavioral control over urges to eat. This work aims to contribute to improving clinical care for individuals in whom overeating represents a key factor precipitating and maintaining obesity.

Shrinivas J Pundlik, PhD
Instructor in Ophthalmology
Schepens Eye Research Institute

Alice J. Adler Fellowship of the Schepens Eye Research Institute

Mentor: Gang Luo, PhD

Project Title: Evaluation of a Mobile Device-Based Dark Adaptation Measurement Method

Project Description: How our eyes adapt to darkness can be a powerful indicator of overall retinal health. The dark adaptation mechanism is known to be impaired in people with underlying retinal disorders such as age-related macular degeneration (AMD) compared to those with healthy retinas. We have developed a mobile device based dark adaptation measurement method that allows easy administration of dark adaptation testing and can potentially become an inexpensive and accessible screening tool. In this project, we will perform preliminary evaluation of mobile device based dark adaptation measurement method in patients with AMD.

Nora Renthal, MD, PhD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentors: Joel Hirschhorn, MD, PhD; Henry M. Kronenberg, MD

Project Title: Translating Human Height Genetics to Skeletal Biology by Functional Genomics of the Growth Plate

Project Description: Height is the product of many genetic and environmental factors influencing skeletal growth. Recently, we investigated a cohort of over half-a-million individuals to identify regions in the genome controlling human height. Many genes implicated were known to cause skeletal disease, however, the majority still have no known role in skeletal or growth biology. We hypothesize that these unstudied targets are likely to have novel roles in skeletal biology. We are currently employing genome-wide CRISPR/Cas9 methodology to establish a high-throughput functional assay of genetic perturbation in growth plate chondrocytes. Our studies will help translate large-scale human genetic studies to a mechanistic understanding of gene function within the growth plate.

Julia M. Rosenbloom, MD
Instructor in Anaesthesia
Massachusetts General Hospital

Massachusetts General Hospital Department of Anesthesia Fellowship

Mentor: Margarita Alegria, PhD

Project Title: Racial differences in induction times in pediatric anesthesia practice: A retrospective cohort study from the Multicenter Perioperative Outcomes Group Research Consortium

Project Description: Only five studies (limited by small sample sizes) have evaluated racial/ethnic disparities in pediatric anesthetic care. Using the Multicenter Perioperative Outcomes Database (a registry of perioperative data from community and academic hospitals nationwide), the proposed study will assess for racial/ethnic disparities in the amount of time pediatric patients spend under general anesthesia. This topic is of interest to parents and providers and is especially timely given recent concern about potential adverse neurological effects of anesthetics for young children. We will test the hypothesis that racial/ethnic minority children spend longer time under general anesthesia than white children.

Jennifer M. Rosenbluth, MD
Instructor in Medicine
Dana-Farber Cancer Institute

Dana-Farber Cancer Institute Fellowship

Mentor: Joan S. Brugge, PhD

Project Title: Patient-Derived Organoids for Targeting Inflammatory Breast Cancer

Project Description: Inflammatory Breast Cancer (IBC) is an aggressive type of breast cancer associated with the rapid onset of swelling of the breast, and a worse outcome, caused by clusters of cancer cells that clog local lymph vessels. I am using a new technique for growing tumors to generate patient-derived cultures of IBCs, termed organoids. I am investigating methods by which the tumors invade lymph vessels. I will also use a drug screening approach to identify compounds that enhance the efficacy of chemotherapy specifically in IBC. The ultimate goal is to develop new clinical trials for this challenging type of breast cancer.

Marwa A. Sabe, MD
Instructor in Medicine
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Medicine Fellowship

Mentor: Deborah Kwon, MD

Project Title: Prognostic Significance of Pre and Post implantation mitral regurgitation in patients with left ventricular assist devices

Project Description: The project is a multi-institutional, multi-disciplinary project which will evaluate how valvular disease impacts clinical outcomes in patients with durable left ventricular assist devices. Specifically, it will assess whether the severity of mitral valve disease impacts clinical outcomes of right heart failure and death in patients with severe heart failure who require support by a left ventricular assist device.

Randi M. Schuster, PhD
Assistant Professor of Psychiatry
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentor: A. Eden Evins, MD

Project Title: Effect of Six-Months of Cannabis Abstinence on Cognition, Academic, and Neural Outcomes in Adolescents

Project Description: Funding from the Claflin Distinguished Scholar Award will support a first-of-its-kind pilot study aimed at quantifying the effect of six months of cannabis abstinence on change in cognition, academics, and task-based brain activity in high school-aged adolescents. Participants will be randomized to six months of abstinence, incentivized by monetary rewards in a contingency management framework, or monitoring with no abstinence requirement. Findings have the potential to impact our understanding of the clinical effect of cannabis on cognition in young people as well on policy, given the rapidly shifting political landscape on cannabis use in the U.S.

Jennifer M. Snaman, MD
Assistant Professor of Pediatrics
Dana-Farber Cancer Institute

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: Joanne Wolfe, MD

Project Title: MyPref: A Communication and Decision-Making Tool for Adolescent and Young Adults with Advanced Cancer

Project Description: Adolescents and young adults (AYAs) with cancer are not cured as often as children and older adults and suffer many side effects from treatments. There are more treatments to choose from when cancer continues, but they all have pros and cons. AYAs want to be involved in deciding the best treatment but often have trouble talking with their parents and doctors. We are developing a new way to help with these conversations using a system called MyPref, an online survey that helps AYAs decide between different types of treatments and identify what parts of treatments are most important to them.

Erin P. Syverson, MD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital Division of Gastroenterology and Nutrition Shore Grant Fellowship

Mentor: David T. Breault, MD, PhD

Project Title: The Role of Wnt Signaling in Perinatal Intestinal Development

Project Description: Intestinal stem cells (ISCs) play a critical role during the regenerative response. In response to injury, adult ISCs appear to undergo reversion to a fetal-like state followed by maturation into definitive adult ISCs, recapitulating perinatal intestinal development. Despite this important recent insight, the mechanisms underlying perinatal ISC maturation remain poorly understood. Through our development of a modified organoid model derived from perinatal ISCs, we are working to better understand the factors influencing this critical period of intestinal development, with the hope of providing new insight into these mechanisms for the development of regenerative strategies for chronic gastrointestinal disease.

Yunhao Tan, PhD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital OFD/BTREC/CTREC Faculty Career Development Fellowship

Mentor: Jonathan C. Kagan, PhD

Project Title: Synthetic Immunology and Anti-tumor Immune Responses

Project Description: The clinical success of cancer immunotherapy, such as checkpoint inhibitors and CAR-T cell therapy, highlights that the immune system could be modulated to combat cancer. The overarching goal of this proposal is to leverage synthetic immunology mediated activation of the immune system to elicit anti-tumor immune responses.

Amy Turner, MD
Instructor in Pediatrics
Boston Children's Hospital

Boston Children's Hospital Division of Gastroenterology and Nutrition Shore Grant Fellowship

Mentor: Alan M. Leichtner, MD

Project Title: Developing a Conceptual Framework for Teaching Colonoscopy: A Qualitative, Interprofessional Approach

Project Description: Traditionally, pediatric colonoscopy training in the U.S. occurs during the three years of fellowship in an apprenticeship model. Few faculty are specifically trained to teach colonoscopy which could lead to sub-optimal training. A "train the trainer" curriculum aims to improve effectiveness of clinical training that is not usually available. The aim of our qualitative study is to explore the perceptions of pediatric gastroenterology attending physicians, fellows, and procedural unit nurses on pediatric colonoscopy teaching, including best and worst teaching practices and barriers to effective teaching, with the goal of developing a conceptual framework for teaching colonoscopy and ultimately development of a standardized "train the trainer" curriculum.

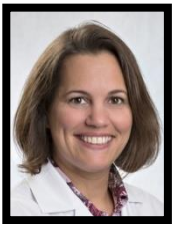
Colyn J. Watkins, MD
Instructor in Orthopedic Surgery
Boston Children's Hospital

Boston Children's Hospital Musculoskeletal Career Development Fellowship

Mentor: Benjamin J. Shore, MD

Project Title: Intraoperative hip arthrography in neuromuscular hip reconstruction: can we reliably decide which children require concomitant pelvic osteotomy?

Project Description: Hip displacement and dislocation is a major focus of orthopedic treatment for children with cerebral palsy. We are investigating the utility of intraoperative dye studies to the joint to help with decision making during surgery. We think these dye studies will help decrease the frequency of pelvic osteotomy, which is an invasive and significant procedure that may not be necessary.



Astrid Weins, MD, PhD
Assistant Professor of Pathology
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Pathology Fellowship

Mentor: Helmut G. Rennke, MD

Project Title: Autoimmunity in Idiopathic Nephrotic Syndrome: Clinicopathologic correlation and development of a diagnostic tool

Project Description: Idiopathic Nephrotic Syndrome (INS) is a kidney condition leading to high protein loss in the urine, and acute and chronic kidney failure. No specific treatment is available. A thus far unidentified circulating factor, referred to as the "Holy Grail" in kidney medicine, has been suspected as the cause. For the first time, we provide strong evidence for the identity of the factor, a paradigm shift in our understanding of this condition. We seek to further examine the association of this factor with clinical course and treatment response, and to develop an assay that will enable simple and rapid diagnosis.

Anna Weiss, MD
Assistant Professor of Surgery
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Surgery Junior Fellowship in honor of Robert T. Osteen, M.D.

Mentors: Tari A. King, MD; Elizabeth A. Mittendorf, MD, PhD

Project Title: Genetic Testing for all breast cancer patients (GET FACTS)

Project Description: The American Society of Breast Surgeons recently recommended genetic testing for all breast cancer patients. Adoption of this approach poses several challenges, specifically increased genetic counseling volume and potential surgical overtreatment. We hypothesize that overtreatment can be avoided by providing surgery-specific genetic counseling, including contralateral breast cancer risk estimates. We will test this hypothesis in a prospective randomized trial with two specific aims:

1. To determine satisfaction with surgery-specific genetic counseling.

2. To assess the impact of universal genetic testing on surgical choices made by patients who are negative for genetic mutations or have a moderate risk gene mutation.

Robert Willim, MD
Instructor in Pathology
Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center Department of Pathology Fellowship

Mentor: Jeffrey E. Saffitz, MD, PhD

Project Title: t(14;18) Negative Nodal Predominantly Diffuse Follicular Lymphoma with 1p36 Deletion and BCL6 gene rearrangement or 1p Loss of Heterozygosity

Project Description: Follicular lymphoma (FL) is a common B cell neoplasm characterized by a nodular growth pattern, a mixture of centrocytic and centroblastic cells, a germinal center B cell phenotype and IGH/BCL2 gene rearrangement. However, cases without t(14;18) have been described including a predominantly diffuse follicular lymphoma (PDFL) variant characterized by a lack of follicular architecture, CD23 expression, 1p36 deletions and inguinal lymphadenopathy. During recent clinical work, we encountered three cases of PDFL diagnosed at BIDMC during a one year period with typical clinical, morphologic and immunophenotypic features. However, unlike previous reports, we discovered one case with a BCL6 gene rearrangement and a second case with copy number neutral loss of heterozygosity of the entire short arm of chromosome 1 rather than 1p deletion. These findings have not been described to date and we would like to perform a retrospective review of all the cases diagnosed at our institution in order to further expand our understanding of the genetic landscape of this subset of B cell lymphoproliferative disorders.

Christiane D. Wrann, PhD
Assistant Professor of Medicine
Massachusetts General Hospital

Claflin Distinguished Scholar Awards

Mentor: Anthony Rosenzweig, MD

Project Title: Dissecting the neurogenic stem cell niche in exercise in the hippocampus

Project Description: Despite best efforts, effective treatment options for Alzheimer's disease are very limited. Interestingly, studies in both animal models and human volunteers indicate that physical activity, can improve cognitive function, in part by generating new neurons in the hippocampus, a region of the brain involved in learning and memory. However, to develop treatments based on exercise interventions, a much deeper understanding of the molecular mechanisms regulating this improved cognition is required. The goal of this project is to identify these mechanisms using advanced molecular profiling techniques.

Kirsi-Marja Zitting, PhD
Instructor in Medicine
Brigham and Women's Hospital

Brigham and Women's Hospital Department of Medicine Fellowship

Mentor: Jeanne F. Duffy, PhD

Project Title: Early vs. late time restricted feeding, circadian timing, and chronotype in overweight and obese adults: Impact on weight loss and cardiometabolic health

Project Description: Time restricted feeding (TRF), limiting the number of hours per day during which food is consumed without calorie counting, promotes weight loss and improves cardiometabolic health. Because circadian rhythms influence energy balance and metabolism and because their timing varies between individuals, understanding the effect of circadian timing on TRF by investigating the optimal timing for eating and fasting will help maximize its health benefits. This pilot study will contribute to knowledge about the optimal timing of TRF for weight loss, cardiometabolic health, and the ability to adhere to TRF based on an individual's circadian rhythm timing.

2019 Award Recipients by Institution

Beth Israel Deaconess Medical Center

Department of Anesthesia John Hedley-Whyte Research Fellowship
Qi Cui Ott, MD

Department of Emergency Medicine Fellowship
Daniel S. Balk, MD
Satchit S. Balsari, MBBS
Oren J. Mechanic, MD

Department of Gynecology and Obstetrics Fellowship
Anna M. Modest, MPH

Department of Medicine Fellowship
Olivia M. Farr, MD
Marwa A. Sabe, MD

Department of Pathology Fellowship
Robert Willim, MD

Department of Surgery Fellowship
Jiaxuan Chen, PhD

Boston Children's Hospital

Division of Gastroenterology and Nutrition Shore Grant Fellowship
Paul Anthony McGreggor Crowley, MD
Erin P. Syverson, MD
Amy Turner, MD

Musculoskeletal Career Development Fellowship
Colyn J. Watkins, MD

OFD/BTREC/CTREC Faculty Career Development Fellowship
Dusica Bajic, MD, PhD
Johanna Calderon, PhD
Avika Dixit, MBBS
Zhongjie Fu, PhD
Eric Gaier, MD, PhD
Lakshmi Ganapathi, MBBS
Peng Guo, PhD
Laura Lehman, MD
Kenneth A. Michelson, MD
Nora Renthal, MD, PhD
Yunhao Tan, PhD

Pediatric Emergency Medicine Faculty Development Fellowship
Kate E. Dorney, MD

Brigham and Women's Hospital

Department of Anesthesiology, Perioperative and Pain Medicine Faculty Development Fellowship
Matthew Grunert, MD
Ehren Nelson, MD
Angela S. Nichols, MD

Department of Medicine Fellowship
Kirsi-Marja Zitting, PhD

Department of Pathology Fellowship
Astrid Weins, MD, PhD

Department of Surgery Junior Fellowship in Honor of Robert T. Osteen, MD
Anna Weiss, MD

Faculty Career Development Award
Hermioni L. Amonoo, MD
Naida M. Cole, MD

Obstetrics and Gynecology Foundation Fellowship
Andrea Lanes, PhD

Dana-Farber Cancer Institute
Dana-Farber Cancer Institute Fellowship
Jennifer M. Rosenbluth, MD

Harvard Medical School
Harvard Medical School Fellowship in honor of Nancy J. Tarbell, MD
Amanda W. Baker, PhD

Harvard Pilgrim Health Care Institute
Department of Population Medicine's Robert H. Ebert, MD Fellowship
Sharon M. Lutz, PhD

Harvard School of Dental Medicine
Harvard School of Dental Medicine Fellowship in Honor of Aina M. Auskaps, DMD
Jennifer L. Gibbs, PhD, DDS

Massachusetts Eye and Ear
Massachusetts Eye and Ear Fellowship
Milica Margeta, MD, PhD

Alice J. Adler Fellowship of the Schepens Eye Research Institute
Shrinivas J. Pundlik, PhD

Massachusetts General Hospital
Claflin Distinguished Scholar Awards
Andrea Edlow, MD
Kelly E. Irwin, MD
Jacqueline Lane, PhD
Deborah M. Mitchell, MD
Randi M. Schuster, PhD
Christiane D. Wrann, PhD

Department of Anaesthesia Fellowship
Julia M. Rosenbloom, MD

Department of Dermatology Fellowship
Elena B. Hawryluk, MD, PhD

Department of Medicine Fellowship
Franziska Plessow, PhD

Department of Radiology Fellowship
Randy C. Miles, MD

Department of Surgery Faculty Development Fellowship
Frances A. High, MD, PhD
Nezihi M. Karabacak, PhD
Shoko Kimura, MD

Dorothy Rackemann Fellowship established by the Vincent Memorial Hospital/MGH for Research in Reproductive Biology
Lauren E. Hanley, MD

McLean Hospital
McLean Hospital Fellowship
Joanna A. Korecka-Roet, PhD

2019 Review Committee

Thanks are due to these individuals for their service and assistance with the growth of the awards program and their review and ranking of the proposed recipients for selection.

Raymond M. Anchan
Assistant Professor of Obstetrics, Gynecology and Reproductive Biology, Brigham and Women's Hospital

Jodi L. Babitt
Associate Professor of Medicine, Massachusetts General Hospital

Carol K. Bates
Associate Dean for Faculty Affairs, Harvard Medical School

Miriam A. Bredella
Professor of Radiology, Massachusetts General Hospital

Jack D. Burke, Jr.
Professor of Psychiatry, Cambridge Health Alliance

Sunil K. Chauhan
Associate Professor of Ophthalmology, Schepens Eye Research Institute

John L. Dalrymple
Associate Professor of Obstetrics, Gynecology and Reproductive Biology, Beth Israel Deaconess Medical Center

S. Jean Emans
Mary Ellen Avery Professor of Pediatrics, Boston Children's Hospital

German O. Gallucci
Raymond J. and Elva Pomfret Nagle Associate Professor of Restorative Dentistry and Biomaterials Sciences, Harvard School of Dental Medicine

Chenghua Gu
Professor of Neurobiology, Harvard Medical School

Neena B. Haider
Associate Professor of Ophthalmology, Schepens Eye Research Institute

Margaret (Marly) Kenna
Professor of Otolaryngology, Boston Children's Hospital

Tara S. Kent
Associate Professor of Surgery, Beth Israel Deaconess Medical Center

Daniela Kroshinsky
Associate Professor of Dermatology, Massachusetts General Hospital

Tara L. Lauriat
Program Director for Academic Affairs, Office for Faculty Affairs, Harvard Medical School

Mary R. Loeken
Associate Professor of Medicine, Joslin Diabetes Center

Joelle Lomax
Program Director for Academic Affairs, Office for Faculty Affairs, Harvard Medical School

Diana Longden
Administrative Coordinator, The Joint Committee on the Status of Women, Harvard Medical School

Mary Frances Lopez
Assistant Professor of Pediatrics, Boston Children's Hospital

Jonathan Matsui
Sr. Program Director for Academic Affairs, Office for Faculty Affairs, Harvard Medical School

John (Toby) Nagurney
Associate Professor of Emergency Medicine, Massachusetts General Hospital

Caleb Nelson
Associate Professor of Surgery, Boston Children's Hospital

Kimmie Ng
Assistant Professor of Medicine, Dana-Farber Cancer Institute

Mizuki Nishino Hatabu
Associate Professor of Radiology, Dana Farber Cancer Institute

Annapurna Poduri
Associate Professor of Neurology, Boston Children's Hospital

Sulpicio De Guzman Soriano
Professor of Anaesthesia, Boston Children's Hospital

Lawrence C. Tsen
Associate Professor of Anaesthesia, Brigham and Women's Hospital

Bethany M. Westlund
Associate Dean for Faculty Affairs, Harvard Medical School

Faculty Development Program, Office for Faculty Affairs

Carol K. Bates
Associate Dean for Faculty Affairs

Brian R. Crete
Faculty Development Coordinator

Award Honorees

Alice J. Adler, PhD

Dr. Adler was a biochemist at Schepens Eye Research Institute from 1976 to 2001. In January of 1985 she was promoted to Senior Scientist and in 2001 she became Emeritus Senior Scientist/Scientific Advisor. Her work focused on components of the retina and mechanisms of vision. Dr. Adler was the first scientist to identify retinol binding that transports Vitamin A to the space between the photoreceptors, which is needed to create rhodopsin, the visual pigment. Retinal binding also transports Vitamin A to the retinal pigment epithelial cells that store retinol and convert it to a form that the photoreceptors can use. Dr. Adler further identified xanthophyll-binding proteins in the human retina and proposed that they bind to the same site on microtubules (the latter bind taxol, a compound used to treat breast cancer). Her work included studies of age-related macular degeneration and was critical to our understanding of retinal diseases.

Aina M. Auskaps, DMD

Dr. Auskaps was the first woman to earn the degree of DMD from Harvard School of Dental Medicine in 1955. Prior to coming to Harvard, Dr. Auskaps earned a DDS degree in her home country of Latvia. She requalified in Germany in 1945. Dr. Auskaps started at HSDM conducting research in the Department of Biochemistry and Nutrition. Once her DMD degree was completed she returned to the department once again as faculty. Dr. Auskaps also served as the first woman president of the HSDM Alumni Association and received the Distinguished Alumni Award in 1983. She maintained a private family practice for 45 years out of her home in Jamaica Plain, MA. An extensive interview of Dr. Auskaps is available at the Harvard Countway Library, Archives for Diversity and Inclusion.

Jane D. Claflin

Jane Claflin is an extraordinary benefactor and dedicated volunteer leader at Massachusetts General Hospital where she has served as trustee, fund-raiser, friend, and cheerleader. She is the force behind the MGH programs that support women in their professional careers and a major reason the MGH opened a backup child care center. The MGH met Jane Claflin in the late 1950s soon after she, her husband Morton Claflin, and their two sons moved to Boston. One of Mrs. Claflin's passions has been to ensure that the MGH is a welcoming, comfortable, friendly, and supportive place for women. In 1993, she helped create the Women in Academic Medicine Committee, serving as its chair. Her work led to the formation in 1997 of the Office for Women's Careers to support, recruit, and retain women faculty members. Mrs. Claflin focused attention on the difficulty women had in sustaining research productivity during their child-rearing years, which too often limited career advancement. The MGH's Executive Committee on Research responded to the call by establishing funding for junior women faculty to help them through this critical period. The awards were named the Claflin Distinguished Scholar Awards in honor of their greatest champion.

Robert H. Ebert, MD, DPhil, AM

As Dean of Harvard Medical School from 1965 to 1977, Dr. Ebert increased recruitment and enrollment of minority students, established affiliations between HMS teaching hospitals and neighborhood health centers, and created the Division of Health Sciences and Technology, a combined MD-PhD program run collaboratively by MIT and HMS. In 1969, he founded Harvard Community Health Plan, the nation's first academic health maintenance organization. After earning his medical degree from the University of Chicago, he served as a Marine Corps physician, and was one of the American doctors who went to Nagasaki to treat Japanese suffering from radiation sickness and related illnesses after the United States dropped an atomic bomb on that city. Upon his return from the war, Dr. Ebert taught at the University of Chicago. In 1964, he was recruited to Boston to serve as Chief of Medical Services at Massachusetts General Hospital. A year later, he was selected to lead Harvard Medical School. After stepping down as dean of HMS, Dr. Ebert became president of the Milbank Memorial Fund, a foundation that supports projects in medicine and health. In 1992, he helped establish the HMS/Harvard Community Health Plan Department of Ambulatory Care and Prevention as a joint project between the school and the HMO.

Robert T. Osteen, MD

Dr. Osteen is an associate professor of surgery at Harvard Medical School and spent over 30 years at Brigham and Women's Hospital, retiring as a senior surgeon in 2006.Throughout his distinguished career as a prominent surgical oncologist, Dr. Osteen received numerous prizes for excellence in teaching. At the Brigham he oversaw the Department of Surgery education program, chaired the hospital's Cancer Committee, and acted as the Cancer Liaison Physician to the Commission on Cancer of the American College of Surgeons. He contributed to the development of several clinical programs, including the Dana-Farber Cancer Institute's Autologous Bone Marrow Transplant Program, a program for breast conserving surgery, and techniques for implantation and chemotherapy administration through an intra-arterial infusion pump. Through the Commission on Cancer, he helped to develop a National Cancer Database that collects information from approximately 75% of the patients with cancer throughout the United States annually.

Dorothy Rackemann

At Harvard Medical School, Dorothy Rackemann (1918–1996) was the Administrative Assistant to the Dean from 1968 to 1978 and the Assistant Registrar from 1978 to 1991. She also held key roles in both the Vincent Memorial Hospital and The Vincent Club. The former, a free-standing hospital for women established in Boston in 1891, was the precursor of the Vincent Department of Obstetrics & Gynecology at Massachusetts General Hospital. The Vincent Club, founded a year later, remains the fundraising arm of the Vincent organization. Miss Rackemann, as she was known—and "Dodie" as she preferred—served as both President of The Vincent Club and President of the Vincent Memorial Hospital Board of Trustees. Active at the Vincent for more than 50 years, she was described as a "tremendous force in nurturing, clarifying and strengthening the ties between the Vincent and the Massachusetts General Hospital."

Eleanor G. Shore, MD, MPH

Dr. Eleanor G. Shore served as the Dean for Faculty Affairs at Harvard Medical School from 1989 to 2005 and has since served as Senior Consultant to the Office of Academic and Clinical Affairs. She trained at Harvard Medical School during the postwar "experimental" era, between 1945 and 1955, when women were admitted on a trial basis. She worked as a primary care physician at the Harvard University Health Services for many years. She served as Assistant to the President of Harvard University for Health Affairs for 8 years during Derek Bok's term as president. Later she served as Deputy Director of the Harvard Medical School Center of Excellence in Women's Health. In 1995 in her role as Dean, she launched the 50th Anniversary Fellowship Program for Scholars in Medicine, which commemorates the admission of women to Harvard Medical School; the program was renamed to honor Drs. Eleanor and Miles Shore in 2004. In 2001, the Association of American Medical Colleges awarded Dr. Shore the History Maker Award for her work to make medical career structures more equitable. Dr. Shore has generously made personal donations to the fellowship program on a nearly annual basis since the start of the program.

Miles F. Shore, MD

Dr. Miles F. Shore, Bullard Professor of Psychiatry, Emeritus was Superintendent and Chief of the HMS Department of Psychiatry at the Massachusetts Mental Health Center from 1975 to 1993. In that role he was responsible for a comprehensive program of research, teaching, and patient care focusing on patients with serious mental illnesses cared for by the public sector. A system of care was developed featuring community programs to replace inpatient care in large institutions. He was a Visiting Scholar at Harvard Kennedy School, teaching courses on the history of mental health policy, leadership, and health policy for physicians. For twelve years he chaired the Promotion and Review Board assessing the progress of HMS students in successfully completing the MD degree. He continued to write on issues of patient safety and disrespect in the culture of medicine. As a strong supporter of faculty development, he personally contributed to the fellowship program on a nearly annual basis since the program began.

Nancy Tarbell

Dr. Nancy Tarbell served as Dean for Academic and Clinical Affairs from 2008 to 2019. She is the C.C. Wang Professor of Radiation Oncology at Massachusetts General Hospital. She led pediatric radiation oncology at Massachusetts General Hospital and Children's Hospital Boston. Dr. Tarbell was the founding director of the Office for Women's Careers and the Center for Faculty Development at Massachusetts General Hospital.

Dr. Tarbell is an internationally recognized expert in pediatric oncology and, in particular, pediatric brain tumors. Consistently listed in The Best Doctors in America (Woodward/White), Dr. Tarbell serves on the national Children's Oncology Group Brain Tumor Committee and she was elected to the Institute of Medicine of the National Academies in 2002. More recently, Dr. Tarbell was selected as the American Society for Radiation Oncology (ASTRO) Gold Medalist in 2014 and was chosen as the 2017 winner of the Marie Sklodowska-Curie Award by the American Association for Women Radiologists (AAWR). She is co-editor

of Pediatric Radiation Oncology, now in its 6th edition and she has authored more than 300 original publications and book chapters.

Dr. Tarbell is a longstanding advocate for faculty development initiatives including mentoring programs for junior faculty and numerous efforts on behalf of women and minorities. In 2009, Dr. Tarbell led the HMS-wide Task Force on Faculty Development and Diversity and she continues to prioritize these issues.

She received the Women in Medicine and Science Leadership Development Award from the Association of American Medical Colleges in 2014.

Thank you to all of the affiliates, departments, and individual donors who have supported more than 1400 fellows through the last 24 years of the program