Postdoctoral Research in Translational Precision Medicine and Gastrointestinal Cancer Prevention/Interception

We are seeking a Postdoctoral Research Fellow to join research projects investigating mechanistically-informed biomarkers for precision chemoprevention and interception of gastrointestinal (GI) cancers in the laboratories of Andrew T. Chan, MD, MPH and David A. Drew, PhD at Massachusetts General Hospital/Harvard Medical School. As the central laboratory for the Clinical and Translational Epidemiology Unit and housed within the Division of Gastroenterology, the Chan/Drew laboratories are using high-dimensional, multi-omics data and patient-derived translational modeling systems (i.e. intestinal organoids) to interrogate mechanisms of chemoprevention for known anti-cancer agents, including aspirin. The research leverages biospecimens and multi-'omic data derived from recently completed NCI-sponsored randomized clinical trials (ASPIRED). Our overarching goal is to define the role of prostaglandin modulation in aspirin chemoprevention, the downstream cellular mechanisms in intestinal epithelial cells, and identify secondary or indirect mechanisms of action mediated by modulation of inflammation or the gut microbiome. In addition, a post-doctoral candidate will gain exposure to and have the opportunity to assist in several ongoing translational research projects including molecular imaging of cathepsins for improving GI cancer detection; a multi-national collaboration funded by Stand Up To Cancer to improve interception for early stage gastric cancer; correlative studies within the Personalized REsponses to DIetary Composition Trials (PREDICT) aimed at advancing precision nutrition recommendations; as well as other projects that are in development. Individual projects will align with existing questions of the research groups and tailored according to the fellow's background while identifying areas for additional research training. Fellows will also have the opportunity for additional training as needed in partner laboratories within the MGH, HMS, and MIT community. For additional information about ongoing work and research interests of the Clinical and Translational Epidemiology Unit, please see https://www.massgeneral.org/mongan-institute/centers/cteu/research/

Setting/Salary/Benefits:
Our laboratory is in a clinical academic setting in the Division of Gastroenterology and Clinical & Translational Epidemiology Unit at Massachusetts General Hospital in Boston, MA, an internationally recognized research institution with a dynamic research environment and extensive infrastructural and core facility support. Postdoctoral appointees will be academically affiliated with and credentialled by Harvard Medical School. Starting salary is based on the NIH NRSA guidelines and includes benefits.

Qualifications:
Candidates should hold a PhD with preference given to applicants with a strong interest in and research training relevant to the areas of cancer prevention, intestinal epithelial cell biology, human genetics/transcriptomics, and the gut microbiome. While not required, bioinformatics, programming and/or statistical skills are a plus. Interested candidates should send a CV/names of references by email to dadrew@mgh.harvard.edu or by regular mail to David A. Drew, Massachusetts General Hospital, GRJ-802A, 55 Fruit St., Boston, MA 02460.