# Postdoctoral Research Fellowship
# Harvard Medical School

**Postdoctoral research fellowship to study the role of the immune system in intestinal epithelial repair with a particular focus on inflammatory bowel disease (IBD).** The candidate is expected to closely interact with an interdisciplinary team of immunologists, medicinal chemists, GI pathologists, and biomedical engineers. The project will focus on the evaluation of modulators of mucosal immunity, protein interaction networks, cell metabolism, epigenetics and intestinal epithelial repair using animal models of colitis, gut barrier injury, and gut organoid assay systems (Science Advances 2020; 6:eaay8230). PhD in immunology, molecular or cell biology or related discipline required. **Submit CV and the names of three references to Elliot L. Chaikof, MD, PhD echaikof@bidmc.harvard.edu.**

**Responsibilities**

- Integrate knowledge from immunology, protein interaction networks, cell metabolism, epigenetics, molecular and cell biology, and the gut microbiome to define underlying mechanisms of gut barrier dysfunction in inflammatory bowel disease and immune mediated approaches to epithelial repair and restoration of gut barrier integrity.
- Initiate and direct experiments that utilize murine models of colitis and other models of gut barrier injury.
- Apply a variety of in vitro tools, including intestinal organoid assays and conduct molecular and cellular bioassays, flow cytometry, as well as immunohistochemical studies to characterize the mechanism of action of lead compounds.

**Requirements**

- Requires a PhD in immunology, biological and biomedical sciences, biomedical engineering or related discipline.
- Collaborate with members of a multidisciplinary team to efficiently pursue novel strategies that support the discovery of immune modulators for gut epithelial repair and regeneration.
- Experience in cell and molecular biology, flow cytometry, other complex bioassays, as well as in vivo studies using mouse models.
- Must be an energetic, out-of-box thinker with positive attitude. Excellent written and oral communication skills are required, as is the desire and ability to work in a multidisciplinary environment.
- Expert knowledge of scientific principles and concepts. Demonstrated success as exemplified by peer-reviewed publications, scientific creativity, and independent thought.

**Interested candidates should contact:** Elliot L. Chaikof, MD, PhD, Johnson and Johnson Professor of Surgery, Harvard Medical School, Beth Israel Deaconess Medical Center, **echaikof@bidmc.harvard.edu**

**Chaikof Lab (www.chaikoflab.org)**
Harvard-MIT Division of Health Sciences and Technology (hst.mit.edu/faculty-research/faculty/chaikof-elliot)
Wyss Institute for Biologically Inspired Engineering (wyss.harvard.edu/team/associate-faculty/elliot-chaikof)
Harvard Stem Cell Institute (hsci.harvard.edu/people/elliot-chaikof-md-phd)
Harvard Digestive Diseases Center (hddc.hms.harvard.edu/research)

The **Chaikof lab** is located in the **Center for Life Sciences (CLS) Building** in the Longwood medical area, directly adjacent to Harvard Medical School. CLS 11090, 3 Blackfan Circle, Boston, MA 02115.