



Isaac M. Chiu, PhD
Associate Professor
Department of Immunology
Blavatnik Institute
Harvard Medical School

Neuronal Interactions with Microbes in Pain and Itch

Dr. Chiu's main research focus is on the role of neuroimmune interactions in pain, itch, and immunity. He is an associate professor at Harvard Medical School in the Department of Immunology. Dr. Chiu received his PhD training in Immunology at Harvard Medical School with Dr. Michael Carroll. He completed postdoctoral fellowships at Harvard University with Dr. Tom Maniatis, and at Boston Children's Hospital with Dr. Clifford Woolf. He started as an assistant professor at Harvard Medical School in 2014 and was promoted to associate professor in 2021.

The Chiu lab uses interdisciplinary approaches from neurobiology, microbiology, and immunology. He has found that nociceptive sensory neurons directly detect bacterial pathogens and their secreted mediators to produce pain and itch. These neurons signal to immune cells in the skin, lungs, and gut to regulate barrier tissue immune responses. Dr. Chiu has received the Chan-Zuckerberg Initiative Ben Barres Early Career Award, NIH Director's New Innovator Award, and Burroughs Wellcome Fund Investigators in the Pathogenesis of Infectious Disease Award.

<http://chiulab.med.harvard.edu>