



DEPARTMENT OF BIOCHEMISTRY FACULTY RECRUITMENT CANDIDATE SEMINARS:

Assistant Professor in Biochemistry



Maulik Patel, Assistant Professor, Vanderbilt University

Research Seminar:

Thursday, January 9, 2025 | 12:00 p.m. – 1:00 p.m.

Seminar Title: "Beyond Metabolism: Mitochondrial genetics and cell biology"

Abstract: My lab is dedicated to exploring mitochondria and its roles in cell biology within the context of reproduction, development, and whole organism physiology. We made mitochondria the focal point of our investigations because they interface with other cellular components and orchestrate metabolic, cellular, and physiological processes from the level of individual cells to the entire organism. This centrality offers a wide range of fundamental questions for exploration with significant relevance for health and disease. In this seminar, I will discuss our work on the underappreciated aspects of mitochondrial genome biology and our recent discovery of a novel pathway of communication between the nucleus and the mitochondria.

Biography: Maulik Patel obtained his bachelor's degree from Grinnell, a small liberal college in rural Iowa where he pursued his joint interests in neuroscience and philosophy. He obtained his PhD from the Neurosciences Program at Stanford University, where he worked with Kang Shen to elucidate the mechanisms of synapse formation. His graduate work was recognized with the Harold M. Weintraub Graduate Student Award for outstanding achievement during graduate studies in the biological sciences. Wanting to combine his molecular and cell biological background with an evolutionary perspective, he undertook postdoctoral work as a Helen Hay Whitney Postdoctoral Fellow with Harmit Malik at the Fred Hutchinson Cancer Research Center in Seattle where he studied the evolution of host-pathogen interactions in primates and the evolution of male-harming mitochondria in *Drosophila*. Subsequently, he set up his lab in the Department of Biological Sciences at Vanderbilt where he initiated a research program to study fundamental principles of mitochondrial genetics and cell biology.

In-Person Seminar Location: Orbach Library 240

ZOOM Link for Seminar: <https://ucr.zoom.us/j/97043598843>

Meeting ID: 970 4359 8843 | **Passcode:** 723272

Host: Dr. Jikui Song