Emerging Biosciences

Calendar	Spring 2022
Date	March 04, 2022 1:00 pm
Location	Online - Zoom Link to Follow
Group Leader	Amy Tsurumi & Debarghya Sakar
Meets on:	Fridays
Time:	1 to 3:00 pm
Teaching Style	Lecture and discussion
Weekly Preparation	None

Debarghya Sarkar is a Postdoctoral Research Fellow at Harvard University and Massachusetts General Hospital. His present research is on applications of semiconducting laser devices as intracellular biophotonic probes. He received his bachelors in Electrical Engineering from Jadavpur University (India) in 2014, and his Ph.D. in Electrical Engineering from the University of Southern California in May 2020. His doctoral research was on a novel heterogeneous semiconductor integration technique geared towards enabling future 3D integrated circuits which has been recognized by multiple awards including the 2020 Best Dissertation Award in Engineering at USC. Amy Tsurumi is an Instructor at Massachusetts General Hospital/Harvard Medical School. She received her Ph.D. in genetics at the University of Rochester School of Medicine & Dentistry and a masters in epidemiology at the Harvard T.H. Chan School of Public Health. She has coauthored scientific articles on development, cancer, aging, infections, and trauma.

Description

Emerging Biosciences – Straight from the Lab

In this seminar, a series of presentations on current biomedical research will provide a unique look at cutting-edge developments in diverse biomedical areas at the world's largest medical research center. Each session will feature postdoctoral fellows from the Massachusetts General Hospital presenting their own research. The course will provide a survey of compelling emerging research topics offered directly by the experts conducting the work. A short discussion will follow each lecture. One of the sessions will examine how imaging the activity of neuronal networks contributes to the understanding of epileptic seizures. Another will consider how recent Nobel Prize-winning CRISPR technology can be used to treat neurological diseases. A subsequent lecture will delve into how tissue dynamics are being tracked to better understand the physical aspects of cancer. A follow-up presentation will focus on how cancer therapy for the brain is being mapped using advanced imaging and artificial intelligence. Prior medical knowledge is not expected, and no weekly preparation is required of attendees.