Stanford



MD Emranul Karim

Visiting Postdoctoral Scholar, Medicine - Med/Infectious Diseases

Bio

BIO

Dr. Md. Emranul Karim is a Visiting Postdoctoral Scholar in the Department of Medicine, Division of Infectious Diseases & Geographic Medicine at Stanford University, working in the laboratory of Prof. Paul Bollyky. His current research focuses on RNA therapeutics and innovative delivery strategies for infectious and immune-mediated diseases.

Before joining Stanford, Dr. Karim was a Postdoctoral Associate in the Department of Chemical Engineering at the Massachusetts Institute of Technology (MIT), where he worked with Prof. Allan S. Myerson on developing continuous manufacturing platforms for in vitro transcription (IVT) of messenger RNA. His training at MIT provided expertise in mRNA synthesis, process optimization, and scalable manufacturing.

Dr. Karim’s broader research background lies in nanoparticle-based drug delivery and translational nanomedicine. He has extensive experience in the design and characterization of lipid nanoparticles (LNPs) and hybrid nanocarriers for nucleic acid delivery, with applications in vaccines, oncology, and regenerative medicine. He earned his Ph.D. in Biomedical Sciences from Monash University, where he developed novel nanoparticle platforms for targeted drug and gene delivery to breast cancer.

His long-term vision is to bridge RNA manufacturing and next-generation delivery technologies to accelerate the clinical translation of nucleic acid–based medicines.