



Infectious
Diseases Labs

A*STAR IDL



Prof Stephen T. Reece

Coalition for Epidemic Preparedness Innovations,
London, United Kingdom



Tuesday 18th Nov 2025

10:00 AM to 11:00 AM (SGT)

Venue: Codon A & B, Matrix Level 5

CEPI and the 100-day Mission: A role for human immune repertoire mice?

CEPI are currently prioritizing a paradigm shift toward investment in viral outbreak preparedness. This is encapsulated by the 100-day mission, where the reaction time between outbreak and initial vaccine availability is minimized, and contextualized to viral families most likely to cause outbreaks. Representatives of such viral families include Arenaviridae, Paramyxoviridae and Filoviridae among others. In the case of Arenaviridae, containing old and new world arenaviruses such as Lassa and Junin viruses causing hemorrhagic fever, vaccine-induced protective immune responses differ. Because antibodies are the only established correlate of vaccine induced protection, understanding engagement of the human antibody repertoire across distinct viral family members is critical for vaccine preparedness. Here, I make the case for vaccination of human immune repertoire mice, providing polyclonal neutralizing antibody responses and characterization of the responding B cell repertoire. Prior knowledge of these parameters across entire viral families may be leveraged for delivery of CEPI's 100-day mission.

Prof Stephen Reece is a translational scientist and has worked in the fields of antibody therapeutics and vaccines for infectious diseases for over 20 years. He started his career Corixa in Seattle USA (acquired by GSK in 2005) working on early-stage development of the M72 vaccine for tuberculosis, moving to the Max Planck Institute of Infection Biology in Berlin (MPIIB), Germany in 2006. At MPIIB he supported Phase I clinical studies for recombinant BCG while doing basic research in Mycobacterial pathogenesis. After working again in industry in mRNA vaccine development for BioNTech, he returned to Cambridge UK, taking a position at Kymab as Group Leader in infectious diseases, becoming Director of Antimicrobial Antibodies when the company became acquired by Sanofi in 2021, and Head of Vaccines and Infectious Diseases at Sanofi, Cambridge UK in 2022. He joined the Coalition for Epidemic Preparedness Innovations in 2024 where he currently leads CEPI involvement in Phase 1a/1b Lassa vaccine development in UK and West African countries and Lassa vaccine portfolio development across viral vector, mRNA and protein modalities.

Hosted by: Prof Stephen Baker

Seminar is open to all. No registration required.

Questions? Contact us at seminars@idlabs.a-star.edu.sg

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