

Special Lecture Series

All welcome



Walter and Eliza Hall Institute

1G Royal Parade Parkville
Victoria 3052 Australia

www.wehi.edu.au

Structural classification of neutralizing antibodies against the SARS-CoV-2 spike receptor-binding domain suggests vaccine and therapeutic strategies



Dr Christopher Barnes

Division of Biology and Biological Engineering
California Institute of Technology

Dr Christopher Barnes is currently a Howard Hughes Medical Institute (HHMI) Hanna Gray Postdoctoral Fellow in the lab of Dr Pamela Bjorkman at the California Institute of Technology. As a native North Carolinian, Dr Barnes completed his undergraduate studies at the University of North Carolina at Chapel Hill, double majoring in Chemistry (BS) and Psychology (BA), while also playing D-I football as a wide receiver for the Tar Heels. He later earned a Masters in Chemistry at UNC (2010) before moving on to earn his PhD in Molecular Pharmacology from the University of Pittsburgh - School of Medicine. It was during his doctoral work on eukaryotic transcription machinery that Dr. Barnes begin to develop the structural tools necessary to understand, at the atomic level, how proteins interact with one another. In 2017, he moved to Caltech to begin his work as a postdoc in the lab of Dr. Bjorkman, a necessary step in his pursuit of establishing his own research laboratory.

Here, Dr Barnes investigates the structural correlates of antibody-mediated neutralization of HIV-1 and more recently, SARS-CoV-2. Using high-resolution imaging techniques, he hopes to gain a better understanding of how our body's immune system responds to viral infections, and how viruses work to infect our cells. By understanding these interactions, Dr Barnes designs antibody-therapies, as well as protein-based immunogens capable of eliciting a protective response via vaccination. With extensive training and well over 20 publications in some of the top journals worldwide, Dr Barnes will soon look to start his own lab as an Assistant Professor of Biology at Stanford University, in pursuit of new therapies to change the world for the better.

Tuesday 8 December 2020, 12–1pm

[Join via TEAMS](#)

Including Q&A session

Host: Dr Onisha Patel