

Ludwig Oxford welcomes two senior leadership fellows

May 9, 2019—We are pleased to welcome two senior leadership fellows to Ludwig Oxford. Francesco Boccellato and Pedro Moura Alves will help expand the Branch's research into infection and cancer.

Boccellato joins Ludwig from the Max Planck Institute for Infection Biology in Berlin, Germany. Francesco specialises in generating 3D culture models of the human gastro-intestinal mucosa for the purpose of studying the effect of cancer-associated pathogens such as *Helicobacter pylori* and Epstein-Barr virus. In his future research, he plans to: (1) further develop complex tissue culture systems to mimic chronic infection *in vitro*; (2) understand the molecular basis of the regenerative programme initiated by infection; and (3) understand the genetic consequences of chronic infection.

Alves has also recently completed his post-doctoral work at the Max Planck Institute for Infection Biology in Berlin, Germany. His research background is in immunology, with a particular specialty in the study of host-pathogen interactions via pattern recognition receptors. Alves' biggest scientific discovery to date stems from his work on the Aryl Hydrocarbon Receptor (AhR), which is involved in host recognition of bacterial virulence factors, including those from clinically important pathogens such as *Pseudomonas aeruginosa* and *Mycobacterium tuberculosis*. He plans to research (1) the role of the AhR as a host sensor of bacterial communication and infection dynamics; (2) the AhR's potential to shape the immune response so that it is appropriate to the stage of infection; and (3) the related impact on bacterial adaptation strategies during the course of infection.