

SFB 900 Seminar Series

ALL GUESTS ARE WELCOME



TITLE

When viral RNA met the cell: a story of protein-RNA interaction



SPEAKER

Dr. Alfredo Castello, Department of Biochemistry, University of Oxford, UK



LOCATION

Lecture Hall R, building J06, MHH, Carl-Neuberg-Str.1
Hannover



05.11.
2020

5.00 PM (s.t.)

» Research of Alfredo Castello

Our overarching goal is to elucidate how cellular RNA-binding proteins (RBPs) control virus infection. Millions of people die every year due to infections by RNA viruses, representing a major threat for human health and a burden on economies and infrastructure. Therefore, it remains critical to improve our understanding of the mechanisms underpinning virus infection. As RNA genomes are small, viruses rely on host resources to complete their biological cycle and this dependence represents great opportunities for antiviral intervention. In this context, cellular RBPs emerged as central players of virus infection as they are essential for replication, processing, translation and packaging of viral RNAs. On the other hand, RBPs are key components of the antiviral arsenal of the cell, sensing viral RNA to trigger the host defence mechanisms. My laboratory employs new system-wide methods to uncover the complement of cellular RBPs that play central roles in virus infection, using human immunodeficiency virus (HIV) and sindbis virus (SINV) as discovery models. Our work uncovered dozens of RBPs that are crucial for viruses, and we are currently investigating their mechanisms of action by applying cutting-edge RNA biology, virology and fluorescence and electron microscopy methods. We envision that the inhibition of these RBPs may afford the development of new antivirals.

Prof. Abel Vidjo-Borbolla
Institute of Virology, MHH

Tel.: 0511 532-4382

✉ Viejo-Borbolla.Abel@mh-hannover.de

Dr. Maike Hinrichs
Institute of Virology, MHH

Tel.: 0511 532-19822 / -17-2357

✉ SFB900.Sekretariat@mh-hannover.de