

Supramolecular Broad-Spectrum Antivirals

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Abstract

Viral infections are a great threat for modern society, there are thousands of people that die every year because of them (mostly in under-developed countries) and many more have a lower quality of life because of them. Furthermore, it is become apparent that pandemic infection can have enormous consequences on global health as well as on the economy of the entire world. In this talk I will summarize a decade-long effort in my laboratory to develop broad-spectrum antivirals. The approach that will be presented is different from most biological approach as it is focused on an extracellular mechanism that affect the structural integrity of the virus rendering them non infective irreversibly. I will discuss the development of the compounds that we are investigating and their putative mechanism. In vitro, ex vivo, and in vivo example of the efficacy of such compounds will be discussed.

11:30 a.m. - May 22, 2023

**IIT Center for Nano Science and Technology
Via Rubattino 81, 20134 - Milano**



About the speaker

Prof. Francesco Stellacci got his degree in Materials Engineering at the Politecnico di Milano in 1998 with Prof. Zerbi. He then moved as a post-doc with Prof. J.W. Perry in the Department of Chemistry at the University of Arizona. In 2002 he became as assistant professor in the Department of Materials Science and Engineering at MIT (Cambridge, USA). There he became associate professor with tenure in 2009. In 2010, he moved as a full professor to EPFL where he holds the Constellium chair. Stellacci has published more than 130 papers and has more than 15 patent applications. He has won numerous awards, among them, the Technology Review TR35 'top innovator under 35', the Popular Science Magazine 'Brilliant 10', and the EMRS EU40. He is a Fellow of the Royal Society of Chemistry, of the Global Young Academy, and of the European Academy of Sciences.

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