

ケミカルバイオロジー研究所

Research Institute for Chemical Biology

第 52 回 ケミカルバイオロジー研究所セミナー
第 136 回 生物科学フロンティアセミナー

Prof. Anna Maria Papini

(伊) フィレンチェ大学・生化学科

Interdept. Res. Unit of Peptide and Protein Chemistry and Biology,

Dept. of Chemistry "Ugo Schiff", University of Florence

A PEPTIDE-BASED APPROACH TO FIGHT SARS-COV-2: FROM VACCINES TO ANTIVIRALS

令和 5 年 11 月 13 日 (月) 13:30~14:30

A13 棟 323 号室 (講義室 B)

The devastating pandemic of severe acute respiratory syndrome known as COVID-19 is caused by the coronavirus SARS-CoV-2. A trimeric spike (S) protein expressed on the virus outer bilayer leaflet has been identified as a ligand that allows the virus to penetrate human host cells and cause infection. Its receptor-binding domain (RBD) interacts with the angiotensin-converting enzyme 2 (ACE2), the host-cell viral receptor, and therefore the interaction between these two proteins is the subject of intense research for the development of virus control means, both vaccines and antiviral drugs. In a first research line, we searched for smaller fragments of the S protein able to elicit virus-neutralizing antibodies, suitable for production by peptide synthesis technology. We also implemented a strategy based on synthetic peptides to develop new antiviral compounds mimicking the binding motif of ACE2 and potentially able to inhibit the ACE2/Spike protein interaction, thus preventing the cell entry.

大阪公立大学 研究推進機構 協創研究センター
ケミカルバイオロジー研究所・所長 中瀬 生彦
〒599-8531 大阪府堺市中区学園町 1-1
大阪公立大学大学院理学研究科
(連絡先) 藤井 郁雄
TEL: 072-254-9834, fujii@omu.ac.jp



大阪府立大
OSAKA PREFECTURE UNIVERSITY