WORKSHOP

in frame of the HRZZ-funded project ''No more hiding CoV-2: Establishment of SARS-Cov-2 mAbeom''

"Fighting COVID-19: Basic and translational research"

Monday, 21st March 2022

Lecture hall ''Vijećnica'', Faculty of Medicine, Rijeka

PROGRAMME

09:00 – 09:20	Opening words: **Prof. Stipan Jonjić/Asst. Prof. Ilija Brizić** University of Rijeka Faculty of Medicine, Rijeka, Croatia
09:20 – 09:40	**Marina Pribanić Matešić, PhD** University of Rijeka Faculty of Medicine, Rijeka, Croatia *Development of monoclonal antibodies for SARS-CoV-2*
09:40 – 10:10	**Prof. Ofer Mandelboim** The Hebrew University of Jerusalem Faculty of Medicine, Jerusalem, Israel *Fusion proteins and antibodies for the treatment of SARS-CoV-2 infection*
10:10 - 10:55	*Coffee break*
10:55 – 11:15	**Paola Kučan Brlić, PhD** University of Rijeka Faculty of Medicine, Rijeka, Croatia *Analysis of infection- and vaccine-induced SARS-CoV-2 antibody responses*
11:15 – 11:35	**Martina Pavletić, MD** University of Rijeka Faculty of Medicine, Rijeka, Croatia *Adaptation of the qPCR diagnostics for SARS-CoV-2 to ER department and outcomes for pandemic management*
11:35 – 12:05	**Prof. Fausto Baldanti** Fondazione IRCCS Policlinico San Matteo, Pavia, Italy *20.02.2020., H20:00*

This work has been supported by Croatian Science Foundation under the project (IPCORONA-04-2073). This material was supported by the grant "Strengthening the capacity of CerVirVac for research in virus immunology and vaccinology", KK.01.1.1.01.0006, awarded to the Scientific Centre of Excellence for Virus Immunology and Vaccines and co-financed by the European Regional Development Fund.

12:05 - 12:25	**Maja Cokarić Brdovčak, PhD** University of Rijeka Faculty of Medicine, Rijeka, Croatia *ChAdOx1-S adenoviral vector vaccine applied intranasally elicits superior mucosal immunity compared to the intramuscular route of vaccination*
12:25 - 12:45	**Prof. Felix M. Wensveen** University of Rijeka Faculty of Medicine, Rijeka, Croatia *SARS-CoV-2 induced antigen-specific memory CD8 T cells are functionally not superior to those generated after vaccination*
13:00 – 14:00	*Lunch*
14:00 – 14:30	**Boris Krichel, PhD** Heinrich-Pette-Institut Leibniz-Institut für Experimentelle Virologie, Hamburg, Germany *Structural mass spectrometry of coronavirus non-structural proteins and their interaction with antibodies*
14:30 – 15:30	Round table with conference participants

THE PROJECT IN BRIEF

Since the discovery of the novel coronavirus disease (COVID-19), caused by severe acute respiratory syndrome CoV-2 (SARS-CoV-2), basic and applied research of SARS-CoV-2 biology and pathogenesis is of utmost need. Monoclonal antibodies (mAbs) are an essential tool in most life science studies, widely used in both diagnostics and therapy.

The goal of this project was to develop monoclonal antibodies for all of SARS-CoV-2 proteins. To that aim, we have: 1) expressed all SARS-CoV-2 proteins using eukaryotic and/or prokaryotic expression system; 2) produced and characterized more than 40 monoclonal antibodies to SARS-CoV-2 proteins; 3) Implemented mAbs into research of SARS-CoV-2. Generated antibodies are available to the scientific community and will allow a comprehensive analysis of the viral proteome and improve understanding of SARS-CoV-2 pathogenesis. This will also be facilitated by our collaboration with several national and international research groups working on complementary research. Altogether, we have established a bank of monoclonal antibodies that meets the current and future needs of scientific community, with the end-result of major impact on SARS-CoV-2 research. This project is funded by Croatian Science Foundation, under the project (IPCORONA-04-2073).

This work has been supported by Croatian Science Foundation under the project (IPCORONA-04-2073). This material was supported by the grant "Strengthening the capacity of CerVirVac for research in virus immunology and vaccinology", KK.01.1.1.01.0006, awarded to the Scientific Centre of Excellence for Virus Immunology and Vaccines and co-financed by the European Regional Development Fund.