

GENERAL INFORMATION

1. NAME OF THE CENTER AND LOCATION	
	<i>Laboratory of Experimental Immunotherapy, Institute of Microbiology, Bulgarian Academy of Sciences</i>
2. TYPE OF THE RESEARCH INFRASTRUCTURE AND/OR SCIENTIFIC EXPERTISE	
Identify the type of the RI, equipment/facilities/ specific research, and in particular linked to COVID-19:	Cell Culture, Molecular Biology, Peptide Microarrays, Flow Cytometry KEY WORDS: Igome, antibody repertoire, phage display, peptide microarray, mimotope vaccines
3. TYPE OF THE RESEARCH	
Provide information on the research carried on or planned in regard with COVID-19 and other viruses	Prediction of antibody epitopes based on mimotopes of B cell precursors
4. WEBSITE	
Provide the internet address:	http://microbio.bas.bg/wordpress/index.php/en/structure/scientific-staff/department-of-immunology/laboratory-of-experimental-immunotherapy/
5. BACKGROUND, PUBLICATIONS AND OPEN DATA REPOSITORY	
leading research team AND Scientific publications of the research group on the topics of related to coronaviruses research results; link to open data repository	<ol style="list-style-type: none">1. A. Pashov, V. Shivarov, M. Hadzhieva, V. Kostov, D. Ferdinandov, K.-M. Heintz, S. Pashova, M. Todorova, T. Vassilev, T. Kieber-Emmons, L. A. Meza-Zepeda, E. Hovig. "Diagnostic Profiling of the Human Public IgM Repertoire With Scalable Mimotope Libraries". <i>Frontiers in Immunology</i>, 10, 2019.2. S. Pashova, C. Schneider, S. von Gunten, A. Pashov. "Antibody repertoire profiling with mimotope arrays". <i>Human vaccines & immunotherapeutics</i>, 13, 314-322. 2017.3. C. Schneider, D. F. Smith, R. D. Cummings, K. F. Boligan, R. G. Hamilton, B. S. Bochner, S. Miescher, H.-U. Simon, A. Pashov, T. Vassilev, S. von Gunten. "The human IgG anti-carbohydrate repertoire exhibits a universal architecture and contains specificity for microbial attachment sites". <i>Science Translational Medicine</i>, 7, 269ra261. 2015.

4. S. Garimalla, T. Kieber-Emmons, A. D. Pashov. "The Patterns of Coevolution in Clade B HIV Envelope's N-Glycosylation Sites". PLoS ONE, 10, e0128664. 2015.
5. A. D. Pashov, J. Plaxco, S. V. Kaveri, B. Monzavi-Karbassi, D. Harn, T. Kieber-Emmons. "Multiple antigenic mimotopes of HIV carbohydrate antigens: relating structure and antigenicity". J Biol Chem, 281, 29675-29683. 2006.
6. **V. Shivarov, P. Petrov, A. Pashov. "SARS-CoV2 Preimmune IgM Epitopes". [submitted]**

Patent Application №PTBG202000000158635/01.04.2020 "SARS-CoV-2 Specific B Cell Epitopes"

6. COORDINATOR

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7. POSSIBLE PARTNERS

Indicate the partner organizations

NA

8. IMPLEMENTED AND RUNNING PROJECTS

Projects related to virology, vaccines, infection diseases ...

Proteomic Analysis of the Repertoire of IgM antibodies in Patients with Brain Tumors, NSF, DN01-11/16.12.2016