madridge CONFERENCES

International Conference on
Immunology and Immunotechnology

November 1-3, 2017 Barcelona, Spain

"Domain Scan" Libraries & Profiling Antibodies Associated with Hepatic Viral Disease

Smadar Neeman[1], Michael Mordekovich[1], Ella Sklan[2], Yaakov Maor[3] and **Jonathan M. Gershoni[1]**
[1]George S. Wise Faculty of Life Sciences, Tel Aviv University, Israel
[2]Sackler Faculty of Medicine, Tel Aviv University, Israel
[3]Kaplan Medical Center, Israel

Hepato cellular Carcinoma and Cirrhosis are often the result of viral infections and in particular Hepatitis B and Hepatitis C viruses. The prevalence of these infections is very wide spread and estimated to exceed 300 million people worldwide. The immune response towards these infections can be complex and whereas some individuals deteriorate to malignant disease, others can actually clear the infection. The correlates for effective clearance are not known and could be associated with specific antibodies directed towards the viral antigens. We have developed a novel approach to profile the antibody response towards Hepatitis C virus, and have conducted a pilot study analyzing clinical samples that represent a number of disease situations. Our methodological platform stems from combining three serological methods developed in our lab: Combinatorial diagnostics, Deep-panning and Domain-scan libraries. Here we have developed specific Domain-scan libraries representing epitopes of HCV antigens. These have been screened against HCV positive polyclonal sera. The signature responses toward specific domains will be described and discussed in relation to the clinical status of the HCV infected individuals. Understanding the details of the humoral response towards cancer causing viruses may assist in prognosis on the one hand and better designing therapeutic regimens on the other.

Biography:

Smadar Neeman completed her B.Sc. in Biology at the George S. Wise Faculty of Life Sciences, Tel Aviv University in 2011 and proceeded with her studies in the Direct Ph.D. program at the Department of Cell Research and Immunology, Tel Aviv University. Her Ph.D. research focuses on developing a novel approach to profile the antibody response towards Hepatitis C virus in order to understand the details of the humoral response towards cancer caused by viruses.

Michael Mordekovich completed his B.Sc. in Biology at the George S. Wise Faculty of Life Sciences, Tel Aviv University at 2015 and proceeded with his M.Sc studies at the Department of Cell Research and Immunology, Tel Aviv University. Michael's research focuses on "Domain Scan" analysis and use of Next Generation Sequencing in profiling the human immune response towards virus infections.