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The profile of humoral immunoreactivity in survivors of *Ebolavirus* Sudan

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Ebolavirus is a member of the family *Filoviridae* and the cause of Ebola hemorrhagic fever (EHF). Since it was first recognized in 1976, more than 18 outbreaks have occurred involving more than 2000 human cases, 1400 deaths, and with a case fatality rate that ranged from 30-90%. During the last decade, much research focused on the human immune response to *ebolavirus* to investigate the role of humoral immunity to different viral epitopes. Although there have been great efforts in this regard, the profile of specific humoral immunoreactivity to viral proteins during viral infection and their role in immunity and/or recovery from disease is still poorly understood. As such, we performed a study to characterize the human humoral immune response to the individual viral proteins of *ebolavirus Sudan* (strain Gulu). Our studies compared the profile of humoral immunoreactivity in serum of survivors versus non survivors of *ebolavirus* infection, to identify patterns of specific viral protein and epitope recognition that might correlate with a positive disease outcome. The results of our work thus far have supported previous published data and contributed to further understanding the humoral immune response, and its recognition profile to specific viral targets, following *ebolavirus* infection in human survivors.

Biography

Ariel Sobarzo received his B.Med.L.Sc. degree in 2005 and M.Sc. degree in 2007 with excellence from the Department of Virology, Faculty of Health Science, Ben-Gurion University of the Negev, Beer-Sheva, Israel. He is currently completing his Ph.D. degree in the Department of Virology, Faculty of Health Science, and in the Department of Biotechnology Engineering, Ben-Gurion University of the Negev. His research work involves an international collaboration for a sera-screening study to identify epitopes of the Ebola Sudan virus that are recognized by the immune response and correlate with disease outcome. These epitopes will hopefully be used for future development of diagnostics and therapeutics.