Achievements and challenges in post-exposure vaccine development

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As chronic diseases, such as tumor, persistent infections, autoimmune diseases, cognitive diseases and metabolic disorders, are the main health problems at present for human, there is a clear need for postexposure vaccines, most of which are therapeutic. To date few postexposure vaccines have been licensed to industry, although large amount of studies had been conducted in the past 20 years. There is a clear indication of the era of transformational development of vaccine. For postexposure vaccine development, we need clear target, novel strategy, and new technologies in vaccine design, adjuvant, and delivery systems. From the view of immunology, there are several challenges: Heterologous immunity, narrowed TCR repertoire, individual TCR usage, cross and pathologic reactivity, antigen load and heterologous immunity, immune deviation. This talk will summarize recent achievements in post-exposure vaccinology development and insight into challenges in immunology.

Biography

Yuzhang Wu has completed his Ph.D for Immunology at the age of 29 years from Third Military Medical University School of Medicine. He is the director of the Institute of Immunology, PLA, the Chair of National Engineering Lab for Vaccine Development of China and National Center for Immunoproducts Research and Development of China. He has published more than 150 papers in reputed journals, applied for 75 international and national invention patents, among which 43 has been approved; and has gained 2 item of Computer software copyright. He is serving as chief-editor of Immunological Journal.

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