



Development of Vaccines Based on Virus-Like Particles

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Message from the Guest Editors

Dear Colleagues,

Basic studies on virus structure and assembly have led to the experimental observation that many viral structural proteins have the intrinsic ability to self-assemble into virus-like particles (VLPs). These VLPs have led to better immunological mimics of whole-virus particles compared to soluble capsid subunits, resulting in the improved effectiveness of vaccines and leading to a renaissance in vaccine development.

VLP-based vaccines combine many of the advantages of whole-virus-based and recombinant subunit vaccines, exhibiting a high safety profile. VLPs produced using recombinant protein expression systems can stimulate strong B- and T-cell immune responses and have been shown to exhibit self-adjuvanting abilities. In addition, VLPs can be used as platforms for the multimeric display of foreign antigens of interest derived from viruses or other pathogens (chimeric VLPs).

This Special Issue aims to collect recent research work on the design, generation and use of VLPs and chimeric VLPs for the development of both human and veterinary new generation vaccines.





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Message from the Editor-in-Chief

Vaccines (ISSN 2076-393X), founded in 2013, now has a firm history of publishing peer-reviewed, state-of-the-art research papers on vaccines and vaccination in the broadest sense. Areas covered include, but are not limited to, novel and emerging vaccine technologies, building on in-depth knowledge of what constitutes a protective immune response. These can be new vaccines for old diseases, or old vaccines for new diseases. Vaccines against cancer and autoimmune diseases explicitly are also within the scope of the journal. Because public opinion and even government policies towards vaccines and vaccination have changed, vaccine policy and public health issues are major concerns. Climate change will also have an impact on the spread of infectious diseases, and thus also on vaccine and vaccination policies worldwide.

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