



Vaccinomics: Omics-System Biology Approach in Vaccine Development

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Deadline for manuscript
submissions:

closed (1 July 2024)

Message from the Guest Editors

In last 3 years we have seen the power of omics for the COVID-19 vaccine development. Different types of omics are adding great values to solve diseases and find better cures. Omics technologies include genomics, transcriptomics, proteomics, metabolomics, and immunomics. These technologies have been used in vaccine research, which can be summarized using the term “vaccinomics.” These omics technologies combined with advanced bioinformatics analysis form the core of “systems vaccinology.” Omics technologies provide powerful methods in vaccine target identification. The genomics-based reverse vaccinology starts with predicting vaccine protein candidates through in silico bioinformatics analysis of genome sequences. Systematic transcriptomics and proteomics analyses facilitate rational vaccine target identification by detecting genome-wide gene expression profiles. Immunomics is the study of the set of antigens recognized by host immune systems and has also been used for efficient vaccine target prediction. Therefore, we are pleased to invite you to contribute high-quality original research articles, reviews and communications on the special issue.





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Message from the Editor-in-Chief

Vaccines (ISSN 2076-393X) has had a 6-year history of publishing peer-reviewed state of the art research that advances the knowledge of immunology in human disease protection. Immunotherapeutics, prophylactic vaccines, immunomodulators, adjuvants and the global differences in regulatory affairs are some of the highlights of the research published that have shaped global health. Our open access policy allows all researchers and interested parties to immediately scrutinize the rigorous evidence our publications have to offer. We are proud to present the work and perspectives of many to contribute to future decisions concerning human health.

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