Special Issue

Formulation and Delivery Technologies for mRNA Vaccines

Message from the Guest Editor

The recent Covid-19 pandemic prompted the development of mRNA vaccines with the advantage of fast production in large scales. Two mRNA vaccines (Pfizer BNT162b2 and Moderna mRNA-1273) were developed in an unprecedented speed that showed more than 90% protective efficacy. Lipid nanoparticles play a crucial role in protection of mRNA from degradation and facilitation of intracellular delivery. Although currently approved mRNA vaccines contain no adjuvants, formulation of mRNA vaccines with new or traditional adjuvants may further enhance its efficacy. Currently approved mRNA vaccines are mainly administered by needle injection. Needle-free delivery technologies may relieve the pain and increase its acceptance rate. Besides infectious diseases, mRNA vaccines also hold a great promise to induce potent anti-tumor immunity. This special issue will focus on formulation and delivery technologies for mRNA vaccines against infectious diseases and cancer. Research articles, reviews, communications are all welcome.

Guest Editor

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