Special Issue

Poxviruses: From Pathophysiology to Novel Therapeutic Approaches

Message from the Guest Editor

We recently celebrated the 40th anniversary of smallpox eradication, but the interest in poxviruses is still high for several reasons. Namely, their double-stranded DNA genome can easily be manipulated, and introductions of heterologous genes are kept stable over multiple viral passages. These features have been exploited to generate recombinant poxviruses for application in biomedical research.

In particular, attenuated vaccinia virus strains have been becoming increasingly popular as vectors in various vaccination programs, and the feasibility of using poxviruses to specifically destroy tumor cells is being tested. However, there is still much to learn about poxviruses in order to improve their safety and efficacy in translational applications. Each of the more than 200 viral-encoded proteins gives us the opportunity to extend our knowledge about fundamental cell biology mechanisms and the function of the immune system in different species. Thus, this Special Issue invites authors from any research field to contribute to this area of biomedicine, either with original data or with literature reviews.

Guest Editor

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