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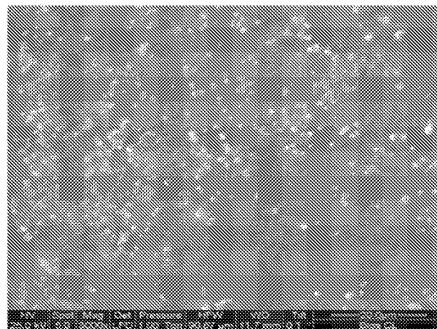


FIG. 1

(57) Abstract: The present invention relates to novel nanostructure-based vector system mimicking the shape and the size-characteristics of a viral nanoparticle and presenting functional antigens expressed by different viruses or bacteria to the host's immune system through the presentation together with a helper T-cell dependent carrier protein against which the host's immune system is universally primed through the serological presence of carrier-specific antibodies for triggering an immediate boost of the human immune system. The invention further relates to vaccines based on such nanostructure-based vector system for the prevention of infection mediated by viral and bacterial pathogens in a mammal host.

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