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BIOGRAPHY

Istvan Toth is a Chemical Engineer and an internationally recognized expert in drug delivery. His major research interests lie in immunoadjuvants, carbohydrates, lipids, peptides, nucleosides and nucleotides. He is a Fellow of the Royal Australian Chemical Institute, The Queensland Academy of Science and Art and The Hungarian Academy of Sciences.

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SELF-ADJUVANTING LIPOPEPTIDE NANOPARTICULATE VACCINE CANDIDATES FOR THE INDUCTION OF PROTECTIVE IMMUNE RESPONSES

Adjuvants are essential for enhancing and directing the adaptive immune response to vaccine antigens. The relationship between a vaccine's physicochemical property and the type of immune response acquired is critical for the advancement of vaccine adjuvants. This underpins researcher's goal to study the structure-activity relationship between self-adjuvanting lipid-based vaccine candidates containing ovalbumin (OVA) CD4 and CD8 peptide epitopes to determine the optimal architecture for stimulation of potent cell-mediated immune responses. Constructs that formed small nanoparticles showed higher cytolytic activity and enhanced tumour growth inhibition. Overall the investigation of the relationship between physicochemical properties self-assembled nanoparticles and immune response for new vaccine candidates is very important.