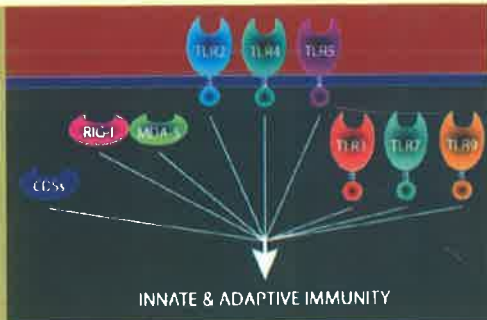


INFECTIOUS DISEASES OF POULTRY

TLR based adjuvants in Vaccines

This book provides recent information about Toll-like receptors (TLRs), their types, structure and localization, the mechanism of action, signaling pathways, development and mechanism of up-regulation of immune responses following TLR activation, and their use as immunoadjuvants. This book also explains the different infectious diseases of the chicken and the advancement in the use of TLR ligands as adjuvant in the vaccines, including conventional as well new-generation vaccines, against the deadly infectious diseases of the poultry.



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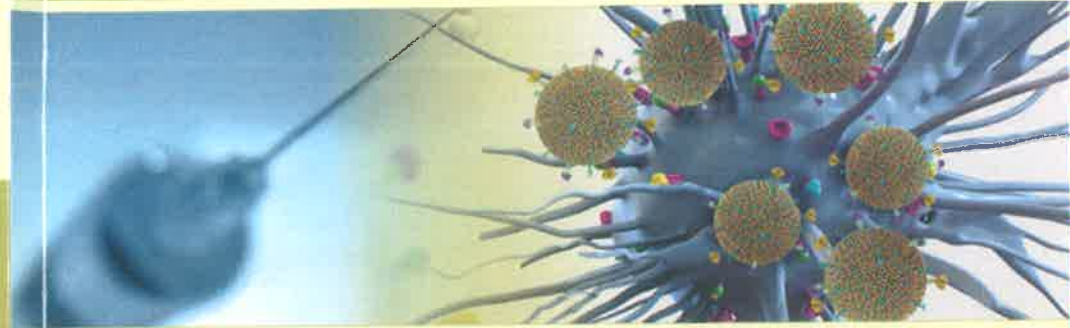
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Shishir Kumar Gupta
Sohini Dey



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Preface

Vaccination of the birds against the infectious deadly diseases is a routine practice, however, some disadvantages associated with the conventional vaccines as well as emergence of new virulent strains, has led to the development of new-generation vaccines. New vaccination strategies for the poultry against the infectious diseases rely on the incorporation of effective adjuvants, which stimulate the innate immune response and, in turn, activate and regulate the adaptive immune response. Adjuvants which are capable of inducing strong and balanced antigen specific immune responses and particularly that can induce effective Th1 immunity are highly desirable in the development of modern vaccines. With advancements in the field of innate immunity, many TLR agonists are being investigated for use as potential adjuvants.

This book intends to explain the mechanism of TLR action, signaling pathways and development of immune response following TLR activation as well as book briefly explains the infectious diseases of the chicken and focuses on the recent advancement in the use of TLR ligands as adjuvants in the vaccines against the infectious diseases of the poultry.

Dr. Shishir Kumar Gupta
Dr. Sohini Dey

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