Insect Infection And Immunity

Under continual attack from both microbial pathogens and multicellular parasites, insects must cope with immune challenges every day of their lives. However, this has not prevented them from becoming the most successful group of animals on the planet. Insects possess highly-developed innate immune systems which have been fine-tuned by an arms race with pathogens spanning hundreds of millions of years of evolutionary history. Recent discoveries are revealing both an unexpected degreeof specificity and an indication of immunological memory - the functional hallmark of vertebrate immunity. The study of insect immune systems has accelerated rapidly in recent years and is now becoming an important interdisciplinary field. Furthermore, insects are a phenomenally rich and diversesource of antimicrobial chemicals. Some of these are already being seriously considered as potential therapeutic agents to control microbes such as MRSA. Despite a burgeoning interest in the field, this is the first book to provide a coherent synthesis and is clearly structured around two broadly themed sections: mechanisms of immunity and evolutionary ecology. This novel text adopts an interdisciplinary and concept-driven approach, integrating insights from immunology, molecular biology,ecology, evolutionary biology, parasitology, and epidemiology. It features contributions from an international team of leading experts. Insect Infection and Immunity is suitable for both graduate students and researchers interested in insect immunity from either an evolutionary, genetical, physiologicalor molecular perspective. Due to its interdisciplinary and concept-driven approach, it will also appeal to a broader audience of immunologists, parasitologists and evolutionary biologists requiring a concise overview. EAN/ISBN : 9780191572975 Publisher(s): Oxford University Press Format: ePub/PDF Author(s): Rolff, Jens - Reynolds, Stuart

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