Record Nr. UNINA9910831099403321 Olfaction in mosquito-host interactions [[electronic resource] /] / **Titolo** [editors, Gregory R. Bock (organizer) and Gail Cardew] Pubbl/distr/stampa Chichester;; New York,: John Wiley, 1996 **ISBN** 1-282-34798-5 9786612347986 0-470-51494-9 0-470-51495-7 Descrizione fisica 1 online resource (344 p.) Collana Ciba Foundation symposium;; 200 Altri autori (Persone) **BockGregory** CardewGail Disciplina 614.4 614.4323 Soggetti Mosquitoes - Control Smell Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "Symposium on Olfaction in Mosquito-Host Interactions, held in Note generali collaboration with the World Health Organization at the Ciba Foundation, London, 31 Oct.-2 Nov. 1995"--Contents. Nota di bibliografia Includes bibliographical references and indexes. OLFACTION IN MOSQUITO-HOST INTERACTIONS: Contents: Nota di contenuto Participants; Preface; Chairman's introduction; Introduction I: an overview of mosquito biology, behaviour and importance; Vector insects and their control; Genetics, ecology and behaviour of anophelines; General discussion I; Introduction II: olfactory control of mosquito behaviour; Odour plumes and odour-mediated flight in insects; Olfactory basis of host location by mosquitoes and other haematophagous Diptera; Selection of biting sites by mosquitoes; General discussion II

The role of mosquito olfaction in oviposition site location and in the avoidance of unsuitable hostsIntroduction III: odours for host-finding mosquitoes; A search for components in human body odour that attract females of Aedes aegypti; Introduction IV: coding mechanisms in insect olfaction; Structure and function of insect of insect olfactory sensilla; General discussion III; Central olfactory pathways in mosquitoes and

other insects; Sensory aspects of host location in mosquitoes; Endogenous factors regulating mosquito host-seeking behaviour; General discussion IV

Electrophysiological responses from receptor neurons in mosquito maxillary palp sensillaResponses of antennal olfactory receptors in the yellow fever mosquito Aedes aegypti to human body odours; The multiple role of the pheromone- binding protein in olfactory transduction; General discussion V; Genetic and molecular studies of olfaction in Drosophila; Synthesis and future challenges: the response of mosquitoes to host odours; Index of contributors; Subject index

## Sommario/riassunto

This new work contains the first integrated discussion of the role of olfaction in mosquito-host interactions. It covers the practical applications of this knowledge in attempting to control malaria as a problem for world health. The volume begins with a general overview of mosquito life cycle styles and how odour-mediated host location fits into the repertoire of behaviours that a specific species may exhibit. Certain aspects of insect olfaction and its underlying physiological mechanisms are incorporated within the book.