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Nota di contenuto	Anticancer Potential of Spider Venom -- Antimicrobial Peptides in Spider Venoms. - Antimicrobial, Insecticides, Analgesics, and Hyalurodinases from the Venom Glands of Brachypelma Spiders -- Bioecology of Spiders with Emphasis in Spiders of Public Health Importance -- Hippasa Spider, Biology, Envenomation, Toxin Profiles, Biological Functions: A Review. - Identifying Insect Protein Receptors Using an Insecticidal Spider Toxin -- In Silico Modeling of Spider Toxins: Bioinformatics, Molecular Docking, and Molecular Dynamics -- Loxosceles and Loxoscelism: Biology, Venom, Envenomation and Treatment -- Pain-Modulating Peptides in Spider Venoms: Good and Evil -- Peptidom and Transcriptom Analysis of the Toxin-Like Peptides in the Venom Glands of Tarantula Grammostola Rosea. - Phoneutria nigriventer Venom and Toxins: A Review -- Phoneutria nigriventer Venom: Action in the Central Nervous System. - Recent Insights in Latrodectus ("Black Widow" Spider) Envenomation: Toxins and Their Mechanisms of Action -- Spider Transcriptomes from Venom Glands: Molecular Diversity of Ion Channel Toxins and Antimicrobial Peptide Transcripts -- Spider Venom and Drug Discovery: A Review. -

Structural Diversity and Basic/Acidic Residue Balance of Active Cysteine-Rich Insecticidal Peptides from Spiders -- Studying the Excitatory and Inhibitory Neurotransmissions with Spider Venoms. - The Non-peptide Low Molecular Mass Toxins from Spider Venoms -- The Venom from *Lasiadora* sp.: A Mygalomorph Brazilian Spider -- The Venom of Australian Spiders -- Venom of *Cupiennius salei* (Ctenidae) .

Sommario/riassunto

This volume provides an overview of the biochemical characterization, structure-function studies, proteomics, bioinformatics, molecular biology, transcriptomics and genomics of various spider species. The book also covers our current knowledge of venom components, toxins and their modes of action. The first section of Spider Venom includes contributions regarding the wide diversity of spider venom components and depicts some of their biological effects (antimicrobial, ion channel modulators, insecticides, this includes peptide and non-peptide toxins), and emphasizes spiders of public health importance. The second section covers transcriptomes, proteomes (and peptidomics), bioinformatics and molecular dynamics. The last section describes antimicrobial, insecticidal toxins, envenomation and the medical potential of spider venoms. Spider venoms are a great and extensive source of bioactive compounds, and as such form a boundless and bountiful area awaiting discovery. It is by virtue of dedicated scientists that new toxins are discovered and that new insights arise, leading the way towards the investigation of their pharmacological effects, and hopefully, as a consequence, arriving at the discovery of venom components as new drug candidates.
