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Titolo	Short Views on Insect Genomics and Proteomics : Insect Genomics, Vol. 1 // edited by Chandrasekar Raman, Marian R. Goldsmith, Tolulope A. Agunbiade
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Descrizione fisica	1 online resource (221 p.)
Collana	Entomology in Focus, , 2405-853X ; ; 3
Disciplina	595.7015
Soggetti	Entomology Animal genetics Animal physiology Evolutionary biology Biotechnology Animal Genetics and Genomics Animal Physiology Evolutionary Biology
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1. Body lice: From the genome project to functional genomics and reverse genetics -- 2. Advances in the genomics of the whitefly Bemisia tabaci: an insect pest and a virus vector -- 3. Updating genomic data of Lepidoptera -- 4. Molecular adaptations of aphid biotypes in overcoming host plant resistance -- 5. Integrative genomic approaches to studying epigenetic mechanisms of phenotypic plasticity in the aphid -- 6. Insect regulatory genomics -- 7. Comparative genomics of transcription factor binding in Drosophila -- 8. The little known universe of short proteins in insects: A machine learning approach.
Sommario/riassunto	Volume 1 presents 8 chapters addressing current genomic and bioinformatic approaches for understanding basic biology using model organisms like body lice, whitefly, aphid, Drosophila, and lepidopterans. Highlighted are genome sequencing projects, genomic

approaches for studying aphid adaptations to host plant resistance and phenotypic plasticity, the molecular basis of gene regulation, and computational approaches for discovering potentially bioactive proteins from DNA sequence information. The editors have assembled top-quality scientists from diverse fields of insect genomics, proteomics and biotechnology to produce a major new work. The chapters of this series (Volumes 1 & 2) present many experts' contributions, providing a concise overview of recent advances by highlighting their current research. The chapters are accessible to wide audience, helping students, postdocs, and researchers to broaden their knowledge and gain an understanding of the challenges and opportunities in each field. Emphasis is on innovative effective and ecologically sound approaches based on the knowledge of insect science to improve public health and agriculture.

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