

Special Issue

Insect Molecular Biology: From Bioinformatics to Pest Management Applications

Message from the Guest Editor

Food shortages caused by pests and the spread of insect-borne human diseases remain urgent global challenges. Over the course of evolution, insects have developed complex adaptations to their environments, reflected in their bioinformatic profiles and resulting in persistent, recurring damage to crops and human health. In recent decades, advances in high-throughput sequencing technologies and decreasing sequencing costs have greatly expanded our knowledge of the genomic and molecular features of many agriculturally and medically important insects. However, the mechanisms underlying insect adaptability and population success are still not fully understood. Moreover, the limited availability of such information continues to hinder the development and effective implementation of biotechnological approaches, including pest control and natural-enemy utilization. This Special Issue welcomes recent discoveries in bioinformatics and biotechnology that advance our understanding of insect adaptability and contribute to improved pest management strategies.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Arthropods are a diverse and abundant group of animals that are important to a variety of research dictates. For example, hexapods act as bio-indicators of ecosystem function and pest status and serve as model systems for questions concerning physiology, embryology, genetics, and social interaction. The editorial board and staff at *Insects* is committed to providing contributors an open access forum to showcase objective and innovative research as well as succinct review articles. Our journal is dedicated to providing timely and thorough review of qualified submissions and we welcome you to submit a contribution.

Editor-in-Chief

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