

Insect Biotech.; Insect Defense and Regulation of Human Physiological Activity

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Insects, often perceived as pests, play vital ecological roles, providing sustainable food, environmental benefits, and valuable materials like silk. Advances in molecular biology have heightened global interest in using insects' biological defense mechanisms and diversity for biotechnological applications in medicine, food, and environmental sectors.

The silkworm (*Bombyx mori*), traditionally key to silk production, now shows promise as a bio-factory for producing human-beneficial substances. The post-genomic era, marked by sequencing the silkworm genome, has deepened insights into insect biology. This seminar explores biotechnological integration to study insect defense systems and their impact on human physiology.