Manipulation of bacterial symbionts in plant-feeding Hemiptera: from symbiosis disruption to interruption of pathogen transmission

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- **Date and Time:** Monday, April 28, 2025, 15:00 CEST.
- **Link to the Webinar**: A link to join the webinar will be sent to those registered in the mailing list. Please scan the QR code above to register.

Abstract

Since the first discovery of the important relationships between insects and microorganisms, scientists have dreamt of manipulating symbioses for pest control. Today, symbiotic control is reality for some Hemiptera such as the brown marmorated stink bug *Halyomorpha halys* by means of symbiosis disruption, while various strategies aimed at interrupting the transmission of plant pathogens are developing. A very interesting model are phytoplasma vectors, which host symbionts that are strictly vertically transmitted as well as bacteria that undergo a continuous exchange with the phloem of host plants, both promising in terms of interference with phytoplasma transmission.

Bio: Prof. Elena Gonella is Associate Professor at the Department of Agricultural, Forestry and Food Sciences, University of Turin, where she teaches General and Applied Entomology, Grapevine Protection, Zoology and Parasitology, and Sustainable Management of Insects. She is involved in research activities concerning insect-microorganism interactions, including vector transmission of phytoplasmas and insect-symbiont interactions; pest management techniques based on symbiotic control; bio-ethology, epidemiology and management of emerging indigenous and exotic insects of agricultural interest; interactions between invasive pests and indigenous and introduced natural enemies. She is the author and co-author of numerous articles published in indexed scientific journals.