

Abstract: Plant negative-sense RNA viruses in the families Bunyaviridae and Rhabdoviridae are economically important pathogens of horticultural and field crops worldwide. These viruses replicate in both their plant hosts and arthropod vectors making them excellent systems to study plant – virus – vector interactions. In his seminar, Dietzgen will present the analysis of capsicum chlorosis tospovirus (CaCV) protein localization, interactions and functions for cell-to-cell movement and RNA silencing suppression in comparison to the well-studied tomato spotted wilt virus. Transcriptome responses to CaCV of resistant and susceptible pepper germplasm, and Thrips palmi vector also will be discussed. Finally, Dietzgen will present an overview of recent research on nonsegmented and segmented plant rhabdoviruses in terms of genome diversity and viral protein localization.

Dietzgen is a principal research fellow at Queensland Alliance for Agriculture and Food Innovation, a research institute of the University of Queensland where he leads the plant-virus-vector interactions team. Dietzgen graduated from the Eberhard Karls University of Tübingen, and did postdoctoral studies at Cornell University, University of California, Berkeley and the University of Adelaide. Before joining the University of Queensland, he worked at the Queensland State Department of Agriculture in the areas of virology and plant biotechnology. Over the years he has been a frequent visitor to the U.S. with sabbaticals at University of California, Berkeley, University of California, Davis and the University of Kentucky. He is currently on a Fulbright Senior Scholarship at K-State.