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Molecular Interactions between the Citrus Bacterial Pathogen *Candidatus Liberibacter asiaticus* and Its Insect Vector the Asian Citrus Psyllid *Diaphorina citri*

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Huanglongbing (HLB), the most serious disease of citrus, is attributed in the United States to *Candidatus Liberibacter asiaticus* (CLAs), a gram-negative, phloem-restricted α -proteobacterium transmitted by the Asian citrus psyllid (*Diaphorina citri*). Despite the fact that the psyllid is well recognized as the vector of CLAs, to the best of our knowledge, little research has so far been conducted on molecular interactions between CLAs and the psyllid. Many gram-negative bacterial pathogens have been shown to adhere to insect cell surface by interactions between receptors and ligands, establishing protein complexes that help them enter into insect cells. In the present study, Far-western (protein overlay assay) was used to seek receptors, two-dimensional blue native/SDS-PAGE to explore complexome (receptor-ligand), and MALDI TOF MS/MS to identify the receptors and ligands. We showed how CLAs adhered to psyllid cells and which protein complexes were established on the cell membrane. Understanding how CLAs interacts with the insect cells should help in the development of new HLB control strategies.