The Chancellor of Ghent University has the honour of inviting you to attend the public defense of the doctoral dissertation of

MSc. Noëmi Van Bogaert

Title of the doctoral dissertation:

Viroid-insect-plant interactions in view of transmission routes

The public defense will take place on October 26th, 2016 at 16h in room E1.012 (Block E) at Campus Coupure, Coupure 653, 9000 Ghent.

There will be a contiguous reception in the “Agora” of Block E (Campus Coupure) to which you are heartily invited. Please confirm your attendance before October 20th to: noemi.vanbogaert@ugent.be

Abstract of the doctoral research

Since the discovery of the Potato spindle tuber viroid (PSTVd, Diener 1971), researchers all over the globe have investigated the unique molecular and epidemiological features of viroids. Viroids are small, non-protein encoding, single-stranded RNAs that replicate autonomously in plants. They are classified into two families, the Avsunviroidae and the Pospiviroidae, which is most prevalent in Europe. Trending topics in viroid research during the past decades were: viroid replication, molecular and biochemical features of viroids, RNA-silencing, host range and transmission mechanisms. Less investigated topics were those related to the interaction with insects and weeds, and the potential occurrence of transencapsidation by plant viruses. This PhD therefore aimed to elucidate several aspects of the pathogen-vector-host triangle. A first goal was to investigate the role of weeds as potential reservoirs for pospiviroids. Secondly, the importance of insects in the pospiviroid spread was studied during several transmission experiments. Finally, the transmission pathway of “transencapsidation” in the luteovirus Potato leafroll virus (PLRV) was investigated for two pospiviroid species.

Dissertation supervisors

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Brief Curriculum Vitae

Noëmi Van Bogaert was born on June 2nd 1988 in Antwerp, Belgium. After obtaining a Bachelor in Biology in 2009 at Ghent University, she graduated with great distinction as Master in Marine Biodiversity and Conservation (EMBC, Ghent University) in 2011. In 2012, she successfully completed the Advanced Master of Science in Environmental Management and Sanitation (Ghent University). In June 2012 she started a joint PhD at Ghent University and ILVO under the supervision of Prof. dr. ir. Guy Smagghe (Agrozoology lab, Ghent University) and Dr. ir. Kris De Jonghe (Virology lab, ILVO). During her doctoral research, she investigated the epidemiology of pospiviroids, with a special focus on transmission routes. She is (co-)author of several publications in international peer-reviewed journals and has presented her work at both national and international conferences. In 2016 she was awarded a fellowship by the Belgian American Educational Foundation (B.A.E.F.) for post-doctoral research in the U.S.A.