Announcement – Jakob Eriksson Prize Recipient for 2018

The Jakob Eriksson Prize, for Plant Pathology is the highest international honour for achievement in plant pathology. It was established in 1923 to honor the memory of Jakob Eriksson, a prominent Swedish mycologist and plant pathologist who died in 1931. He was a dedicated internationalist who espoused the cause of international cooperation in plant pathology. The Prize will be awarded during the opening ceremony of the International Congress of Plant Pathology in Boston USA on 29 July 2018. The Royal Swedish Academy of Sciences administers the Jakob Eriksson Prize Fund which provides for a gold medal award at Congresses of the International Society for Plant Pathology (ISPP).

2018 Jakob Eriksson Prize Recipient, Emeritus Professor Pierre JGM de Wit

On behalf of the Jakob Eriksson Prize Commission, the ISPP takes pleasure in announcing that the 12th Jakob Eriksson Prize for Plant Pathology will be awarded to Emeritus Professor Pierre JGM de Wit of the Laboratory of Phytopathology, Wageningen University, the Netherlands for his pioneering research in molecular plant pathology and plant-microbe interactions.

Pierre de Wit has been a pioneer in molecular plant pathology and plant-microbe interactions research. His early studies were instrumental for the introduction of molecular biology techniques into phytopathology research. While studying the gene-for-gene interaction between tomato and the leaf mould fungus *Cladosporium fulvum*, his research group was the first to clone an avirulence gene of a pathogenic fungus in 1991. Subsequent functional analyses of this and other avirulence genes also cloned by his group revealed that the encoded molecules actually exert dual functions: besides mediating recognition in tomato genotypes that carry corresponding resistance genes, they contribute to disease establishment on tomato genotypes that lack the corresponding resistance genes. As such, his work contributed to the understanding of pathogen-secreted molecules that are presently recognised as effectors. Particularly, work on the *C. fulvum* Avr2 effector was instrumental to propose the so-called guard model, explaining the mode of action of resistance proteins. Avr2 was characterised as an inhibitor of tomato cysteine proteases, and through this activity disease establishment is promoted. In resistant plants, the Cf-2 resistance protein monitors the status of the tomato protease Rcr3 and, upon manipulation of Rcr3 by Avr2, activates immune responses. Another *C. fulvum* effector that he characterised in detail is the chitin-binding Avr4 protein that protects fungal hyphae against tomato chitinases by shielding of chitin in the fungal cell wall.
Intriguingly, Avr4 homologs are found in *C. fulvum* relatives, such as the banana pathogen *Mycosphaerella fijiensis*, and the tomato resistance protein Cf-4 that recognises Avr4, is also able to recognise these Avr4 homologs.

Over the last years of his active career, Pierre de Wit has led an international consortium that sequenced the genome of *C. fulvum*, and of the closely related pine pathogen *Dothistroma septosporum*. This latter study was instrumental to understand host adaptation in this pathogen. In 1999, Pierre de Wit was elected member of the Royal Netherlands Academy of Arts and Sciences (KNAW) and for his pioneering work in molecular plant pathology, he was awarded the prestigious Academy Professor Prize in 2008. Amongst other awards he received the Emil Christian Hansen Gold Medal Award from the Carlsberg Foundation (1996) for elucidating the structure and function of a fungal avirulence gene, and the Noel Keen Award for research excellence in molecular plant pathology from the American Phytopathological Society (2007).

For many years, Pierre de Wit was one of the most cited scientists in the field of botany and zoology according to Thomson Reuters. He has (co-) authored close to 200 articles, several of which are published in high-impact scientific journals such as Nature, Science and the Proceedings of the National Academy of Sciences USA. Overall, Pierre de Wit is known as an excellent advocate for science and an inspiring mentor, and several of his former students and postdocs hold prestigious academic positions.

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