



Jari Valkonen

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Jari P. T. Valkonen was an internationally renowned Professor in Plant Pathology at the University of Helsinki and an active researcher, who died suddenly of an illness at the age of 60. Jari Valkonen was one of the international leaders in potato virus and potato disease resistance research and the founder of modern plant virology research in Finland. During his career, he made numerous important observations and published more than 250 scientific papers. His research on plant virus resistance and gene silencing was pioneering. He also elucidated the mechanisms by which viruses can suppress RNA silencing and overcome the plant's defence responses. These results received remarkable international attention. He drew from many scientific disciplines to study the surprisingly complex interactions between viruses and crop plants. These studies were crucial to understanding the biology of the important group of potyviruses. His work resulted in the identification of resistance genes to fight viral diseases and to promote sustainable food production. Much of Jari Valkonen's research focused on important food crops: potato, sweet potato, and cassava. His more recent research included the development of the moss *Physcomitrella*

patens as a model organism for resistance studies.

In addition to basic research, Jari Valkonen led applied projects focusing on crop disease management and diagnostics. He contributed to the Finnish seed potato industry strategy, where safeguarding plant health is central. Long-term education and development cooperation with Uganda, the Republic of Tanzania, Nicaragua, and India, including studies on sweet potato and cassava viruses, was close to his heart. He was also involved in several EU-funded projects. His interest in plant pathogens was wide-ranging. This broad approach, including bacterial and fungal pathogens, is reflected in the wide range of topics covered in the more than 30 doctoral theses he supervised. He actively participated in NOVA PhD courses in plant pathology organised by Nordic agricultural universities and faculties. He attended his first course in Denmark in 1992, taught subsequent courses and eventually led excellent courses in Mikkeli, Eastern Finland, in 2012 and 2016. Jari served as Editor-in-Chief of *Annals of Applied Biology* from 2009 to 2014 and edited textbooks.

Jari Valkonen grew up on a farm in Ristiina, South Savo, which is probably where

his love of farming and his work ethic came from, leading to a long career as a researcher in agricultural sciences. He passed his matriculation examination in 1983 at Ristiina Upper Secondary School and began studying plant pathology at the University of Helsinki. He did his doctoral work on virus resistance in wild potato species at international research stations (Rothamsted, England in 1989, and International Potato Center, Peru in 1990) and received his PhD from the University of Helsinki in 1993. He was the most meritorious promovendi, the Doctor primus, at the conferment ceremony of the University of Helsinki's Faculty of Agriculture and Forestry in 1996. He was an Academy of Finland researcher and head of a research group at the Institute of Biotechnology at the University of Helsinki from 1993 to 1997. During these years, he gained experience in molecular virology and expanded his international collaborations. At the age of 32, Jari Valkonen became Professor of Virology at the Swedish University of Agricultural Sciences in

Uppsala. This appointment was remarkable, because at the time, this was the only plant virology professorship in the Nordic countries. In 2001, he was appointed Professor of Plant Pathology at the University of Helsinki. From 2006 to 2011, he held the highly prestigious Finnish Academy Professorship. He has been awarded major prizes, including the NOVA Prize 2004 for promoting Nordic cooperation in plant pathology, the Richard Francki Prize for viral research in 2005 and the Order of the White Rose of Finland, First Class, 2014. He was a member of numerous Finnish and international scientific societies and the Finnish Academy of Science and Letters from 2004.

In addition to an illustrious scientific career, Jari was talented in music. He sang in the Laulu-Miehet Male Voice Choir. Jari possessed a broad general knowledge and was a warm-hearted colleague. His research legacy is carried on by his former students and colleagues. Jari Valkonen will be missed by his family, friends, and the wide international scientific community.

*Obituary by Mart Saarma, Kristiina
Mäkinen and Risto Ihmäsuo*

Image: Veikko Somerpuro