Enid MacRobbie Corresponding Membership Award

Hitoshi Sakakibara
Nagoya University

Hitoshi Sakakibara is a professor at Nagoya University in Japan, where he serves as Deputy Director of the Institute for Advanced Research. Hitoshi is renowned for his work on the molecular mechanisms underlying nutrient-responsive regulation of plant growth and development, and in particular he is recognized among the world leaders in the study of cytokinins. His pioneering work started with the elucidation of the cytokinin biosynthesis pathway and the identification of its key genes and continued with deciphering how nitrogen nutrition status regulates cytokinin biosynthesis and transport. Hitoshi’s work shed light for the first time on the biological meaning of the structural variation among cytokinins and how trans-hydroxylation of cytokinin in roots is involved in fine-tuning shoot growth and architecture. The fundamental knowledge generated by Hitoshi’s group set the stage for new strategies aimed at designing low-N input/stable output agriculture. More recently, Hitoshi’s work has focused on the identification of novel signaling molecules acting as plant growth and development regulators, with an emphasis on phytohormone mimics produced by phytopathogens. The outcome of this work is anticipated to lead to the identification of novel endogenous signaling molecules in plants and therefore to the development of new agrochemicals. Hitoshi has been recognized as a highly cited scientist by ISI for six consecutive years (2014-2019), and he has been acknowledged as an ASPB Top Author. He also contributes to the plant science community as editor-in-chief of Plant and Cell Physiology (2016 to present), a handling editor for the Journal of Experimental Botany (2011-2016), and a guest editor for The Plant Cell (2016 to present).