

Daniel P. Matton

Recipient of the 2004 CD Nelson Award in Plant Physiology



Daniel Matton received his PhD from the Department of Biochemistry at the Université de Montréal in plant-pathogen interactions in 1992. After graduating, he carried out postdoctoral research with the support of NSERC and FCAR in the laboratory of Adrienne Clarke in Melbourne, Australia. While in Melbourne, he became interested in the molecular aspects of plant reproduction. He pursued this interest during a second postdoc in the laboratory of Mario Cappadocia in Montréal. Plant reproduction became his main area of activity when he obtained a position at the Institut de Recherche en Biologie Végétale (Université de Montréal) in 1995. In 2000, Daniel became Associate Professor and he was awarded a Canada Research Chair in Functional Genomics and Signal Transduction in 2002. He also received a prestigious Humboldt Research Fellowship to carry out a research project on zygotically expressed genes during a sabbatical in Hamburg Universität in 2003. His research over the years has been funded by NSERC, FCAR and CFI. Daniel has trained more than 20 graduate student, postdoctoral fellows and research associates. He is author or co-author of more than 28 refereed publications in leading journals.

During his already very productive scientific career, the focus of his research has always been deciphering molecular control mechanisms. Daniel has worked in three different research domains with equal success: plant pathogen interactions, self-incompatibility barriers and development and signalization during plant fertilization and embryogenesis. His current research on the function of protein kinases expressed during pollination and embryogenesis is truly outstanding. His group used a highly original negative selection screen to isolate weakly expressed genes in *Solanum chacoense* and *Solanum tuberosum*. This approach led to the generation of an EST collection containing 12,000 sequences with more than 80% unigenes. This collection is currently used by his laboratory to characterize the function of novel plant protein kinases with the long term goal of understanding signalling events during fertilization and seed development in plants. This is an extremely competitive area of research in which Daniel has emerged as a scientifically productive intellectual leader. His work has been published in high impact journals such, as *The Plant Cell*, *PNAS*, *The Plant Journal* or *Plant Molecular Biology*.

His breakthrough genomic research and leadership is widely recognized at the national and international level as evidenced by numerous invitations in scientific meetings, scientific collaborations, participation to *ad hoc* scientific committees or review boards and science policy-making bodies.

Furthermore, his passion for science communication and popularization is clearly evident from both his teaching, where he has always been recognized as an excellent communicator, and through the use of innovative teaching methods, including the production of scientific videos, as well as from his involvement in radio and TV programs, or popular science magazines in explaining the possibility and impacts of biotechnology.