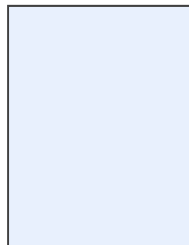


BIOGRAPHY

29.06.2012.



Title and name

Dr. Nils Rostoks

Nationality

Latvia

Panel

GMO

Education

Doctor in biology, 1999, University of Latvia, Latvia

M.Sc. in biology 1995, University of Latvia, Latvia

Scientific and risk assessment experience

- Molecular mechanisms of plant disease resistance including cloning and characterization of disease resistance genes and other genes associated with hypersensitive response and plant immunity
 - Biosafety of genetically modified organisms with the focus on science-based risk assessment of GM crop plants and their environmental impact
 - Plant genome structure with the focus on different molecular marker systems for map-based cloning, association genetics, and application for studies of genetic diversity in crop plants, as well as in wild plant species
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Main scientific publications

The main focus of my current research is on biosafety of GMOs, as well as on mechanisms of plant disease resistance and on application of molecular markers for studying plant genomes.

1. Nakurte I, Keisa A, Rostoks N (2012) Development and validation of a reversed phase liquid chromatography method for the simultaneous determination of indole-3-acetic acid, indole-3-pyruvic acid and abscisic acid in barley (*Hordeum vulgare* L.). Journal of Analytical Methods in Chemistry, 2012: 6
2. Keisa A, Kanberga-Silina K, Nakurte I, Kunga L, Rostoks N (2011) Differential disease resistance response in the barley necrotic mutant *nec1*. BMC Plant Biol, 11:66
3. Close T, Bhat P, Lonardi S, Wu Y, Rostoks N, Ramsay L, Druka A, Stein N, Svensson J, Wanamaker S, Bozdog S, Roose M, Moscou M, Chao S, Varshney R, Szucs P, Sato K, Hayes P, Matthews D, Kleinhofs A, Muehlbauer G, DeYoung J, Marshall D, Madishetty K, Fenton R, Condamine P, Graner A, Waugh R (2009) Development and implementation of high-throughput SNP genotyping in barley. BMC Genomics 10:582
4. Kleinhofs A, Brueggeman R, Nirmala J, Zhang L, Mirlohi A, Druka A, Rostoks N, Steffenson BJ (2009) Barley stem rust resistance genes: structure and function. The Plant Genome, 2: 109-120
5. Brueggeman R, Druka A, Nirmala J, Cavaleer T, Drader T, Rostoks N, Mirlohi A, Bennypaul H, Gill U, Kudrna D, Whitelaw C, Kilian A, Han F, Sun Y, Gill K, Steffenson B, Kleinhofs A (2008)

The stem rust resistance gene *Rpg5* encodes a novel protein with nucleotide binding site, leucine-rich and protein kinase domains. Proc Natl Acad Sci USA, 105: 14970 – 14975

6. Rostoks N, Ramsay L, MacKenzie K, Cardle L, Svensson JT, Bhat P, Roose ML, Stein N, Varshney RK, Marshall D, Graner A, Close TJ, Waugh R. (2006) A recent history of artificial outcrossing facilitates whole genome association mapping in elite inbred crop varieties. Proc Natl Acad Sci USA, 103: 18656-18661
 7. Rostoks N, Schmierer D, Mudie S, Drader T, Brueggeman R, Caldwell DG, Waugh R, Kleinhofs A (2006) Barley necrotic locus *nec1* encodes the cyclic nucleotide-gated ion channel 4 homologous to the *Arabidopsis* *HLM1*. Mol Genet Genomics 275: 159-168
 8. Rostoks N, Mudie S, Cardle L, Russell J, Ramsay L, Booth A, Svensson JT, Wanamaker S, Walia H, Rodriguez E, Hedley PE, Liu H, Morris J, Close TJ, Marshall DF, Waugh R. (2005) Genome wide SNP discovery and linkage analysis in barley based on genes responsive to abiotic stress. Mol Genet Genomics 274: 515-527
 9. Horvath H, Rostoks N, Brueggeman R, Steffenson B, von Wettstein D, Kleinhofs A (2003) Genetically engineered stem rust resistance in barley using the *Rpg1* gene. Proc Natl Acad Sci USA 100: 364-369
 10. Brueggeman R, Rostoks N, Kudrna D, Kilian A, Han F, Chen J, Druka A, Steffenson B, Kleinhofs A (2002) The barley stem rust resistance gene *Rpg1* is a novel disease resistance gene with homology to receptor kinases. Proc Natl Acad Sci USA 99: 9328-9333
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