

## Vacancy for a PhD student Plant Molecular Genetics

### Job description:

You will perform a PhD study to the genetic basis of wart disease resistance in potato.

Potato wart disease is caused by the soil borne obligate parasitic fungus *Synchytrium endobioticum* which has a quarantine status in Europe. Quarantine management strongly relies on potato varieties with race specific resistance but the genetic basis of wart resistance is not well understood.

You will follow an integrated genomics, QTL mapping, genome wide association studies (GWAS) approach to tag the wart disease resistance (*R*) genes in potato cultivars. This knowledge will be used to develop essential tools for breeding programs and resistance based quarantine management. In a parallel study we will identify the proteins from *S. endobioticum* *Avr* genes to develop simplified, unambiguous functional and molecular tools for pathogen race typing. Moreover, we will disclose the unique molecular armory acquired during the coevolution between a plant host and a pathogen of the phylum *Chytridiomycota*.

This combined public private research effort should create a major breakthrough in potato wart disease resistance management and breeding.

### Candidate Profile:

You are a result-driven team player with a puzzle solving mind-set. You have a Msc in lifescience and with expertise or strong interests in (plant) genetics, statistics, molecular biology and plant-microbe interactions, as well as good proficiency in English (both oral and written).

You are motivated to teach and supervise BSc and MSc students.

### We offer:

You will be working in a team together with a second PhD student, technicians and expert scientists from Wageningen UR Plant Breeding and Wageningen UR Biointeractions. As a PhD student you will be a member of the graduate school Experimental Plant Sciences.

You will start preferably on June 1st 2015. A later start date can be discussed. A fulltime employment (38 hours a week) as PhD researcher within Wageningen UR Plant Breeding is foreseen for 4 years with a go/no go after one year. The gross salary will increase from € 2125,- in the first year up to € 2717,- per month in the fourth year (based on fulltime employment).

### Our organisation:

Wageningen University and Research Centre delivers a substantial contribution to the quality of life. That's our focus – each and every day. Within our domain, healthy food and living environment, we search for answers to issues affecting society – such as sustainable food production, climate change and alternative energy. Of course, we don't do this alone. Every day, 6,500 people work on 'the quality of life', turning ideas into reality, on a global scale. Could you be one of these people? We give you the space you need.

Wageningen UR Plant Breeding is a merger of the Laboratory of Plant Breeding of Wageningen University and the Business Unit Biodiversity and Breeding of Plant Research International with about 200 employees. The group conducts fundamental, strategic and applied research on breeding and genetics of various plant species.

### More information and applications:

Jack Vossen, Wageningen UR Plant Breeding ([jack.vossen@wur.nl](mailto:jack.vossen@wur.nl)). Or, Herman van Eck, ([herman.vaneck@wur.nl](mailto:herman.vaneck@wur.nl))