

PhD position at Aarhus University- BRCC research programme

Ramularia collo-cygni (Rcc) is an infectious fungus of cereals and grasses that for unknown reasons, develops from an asymptomatic endophyte into a major pathogen of barley inducing Ramularia leaf spot disease (RLS). The fast spreading, competitive and asymptomatic nature of Rcc during its endophytic stage represents a genuine challenge to cereal breeders. No cultivars with high expression of resistance have been identified, and no efficient diagnosis predicting a damaging attack exists. BRCC programme (**B**arley interacting with *Ramularia collo-cygni*) brings together, for the first time, leading international groups in the field into a team to integrate the knowledge on the partners i.e. the plant and the microbe. We take advantage of the genomic and post-genomic tools to understand and control the interaction between *Ramularia collo-cygni* and barley.

The PhD project: The PhD project will elucidate the infection biology of host-altered interactions by understanding the development of the disease in real-time, and defining the events leading to the switch in Rcc lifestyles. Genetically transformed Rcc isolates and mutants will be produced and used for detailed confocal and transmission electron microscopy (TEM) following fungal development during the lifetime of the host plant.

Workplace: Aarhus, Denmark and James Hutton Institute, UK.

We invite prospective bachelor and master students to contact us and express their interest in pursuing this PhD study. We are looking for highly motivated candidates with the ability to work independently, take own initiatives, and have an interest in combining basic and applied biological questions. Details regarding the application procedure can be found at

<http://talent.au.dk/phd/scienceandtechnology/opencalls/calls-on-specific-projects/brcc-infection-biology-of-ramularia-colo-cygni-in-barley/>

Application deadline: 1st of May 2015

Additional info:

<http://mbg.au.dk/en/research/danish-research-council-grants/brcc/>

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