Postdoc position in innovative sequencing technologies to investigate host-pathogen interactions in the banana - *Banana bunchy top virus* pathosystem

For application please check:


You are seeking for a postdoc position in an international research team using cutting-edge technologies to address challenges in food security crops. This postdoc position is for you.

**WORKING ENVIRONMENT**

About the Tropical Crop Improvement Lab
The Tropical Crop Improvement Laboratory implements trait improvement approaches for important tropical crops such as banana and cassava. The Tropical Crop Improvement Laboratory has a strong focus on molecular biology, genetics and omics approaches to investigate crop responses to biotic and abiotic stresses.

The Tropical Crop Improvement Laboratory works in close collaboration with the banana breeding team of IITA ([https://breedingbetterbananas.org/](https://breedingbetterbananas.org/)) and the team of Bioversity International (located in the same building) managing the International Musa Germplasm Transit Centre (ITC), which is home to the world’s largest collection of banana germplasm. The laboratory has a strong expertise in cassava and banana research.

Tropical Crop Improvement website

About the Division of Crop Biotechnics
The Division of Crop Biotechnics performs cutting-edge research on crop and model plant species, integrating knowledge at the cellular, tissue, plant, environment and agro-systems level. The Division consists of several research groups developing various molecular tools and having a strong expertise in molecular biology, plant pathology, tropical crops, genomics, plant hormones, plant nutrition and soil. The Division of Crop Biotechnics provides a very international working environment with opportunities to collaborate with top-ranked universities and international research centers.

Division website

About KU Leuven
KU Leuven offers a competitive and international working environment with access to cutting-edge technologies and expertise. KU Leuven is the best internationally ranked university in Belgium and ranks amongst the best European universities for research and education. KU Leuven also ranks as the [most innovative university](https://www.kuleuven.be/) in Europe, building on a very strong tech transfer office.

KU Leuven website
RESEARCH PROJECT

Banana bunchy top disease (BBTD) is one of the most important diseases of banana. The causal agent is the Banana bunchy top virus (BBTV) which belongs to the genus Babuvirus in the family Nanoviridae. BBTVs are composed of six circular ssDNA molecules named DNA-R, DNA-U3, DNA-S, DNA-M, DNA-C and DNA-N. The viral components encode for viral proteins involved in the replication, encapsidation and movement of BBTV particles. Analysis of the virus diversity has so far mostly relied on the use of RCA- and PCR-based methods prior to conventional cloning and sequencing. In order to further characterize the diversity of BBTV in plants and the putative role of viral component titers in banana response to stress, we will take advantage of the newly established CIDER-Seq method (1,2) to characterize BBTV in infected banana subjected to abiotic stresses. The analysis of the BBTV component diversity will also serve as a basis to elaborate new virus inoculation methods to enable rapid screening of BBTV resistance in the banana germplasm collection. The research project will also build on a strong collaboration with IITA banana breeding team and Bioversity International.

PROFILE

We seek a candidate with a PhD degree in Biology, Bioinformatics, Biotechnology, Agricultural Sciences or other relevant degree for the abovementioned project. The successful candidate should have demonstrated experience in at least two of the following research fields: molecular biology, virology, bioinformatics, biotechnology.

The successful candidate will have the following profile:

- creative with a strong interest in innovation
- good academic performance at the MSc and PhD level
- demonstrated capacity to write (scientific writing) and communicate in English
- demonstrated capacity to write project proposals
- eager to learn new techniques
- able to integrate in an international working environment

OFFER

- We offer a full-time postdoc position for 1 year with a possibility for extension.
- The selected candidate is also expected to apply for a FWO postdoc fellowship.
- Excellent guidance by a dynamic multidisciplinary team.
- State of the art research infrastructure.
- A challenging job in a young, dynamic environment.
- High level scientific training at a top-ranked university.
- Being part of a world-class research group.
- Remuneration according to the KU Leuven salary scales

APPLICATION

For more information please contact Prof. Hervé Vanderschuren (herve.vanderschuren@kuleuven.be) and Prof. Rony Swennen (rony.swennen@kuleuven.be)
Applications review and selection process will start on February 1st, 2020. The position will remain open until suitable candidate is identified. You can apply via the online application tool. The successful candidate is expected to start during the first semester of 2020.

KU Leuven seeks to foster an environment where all talents can flourish, regardless of gender, age, cultural background, nationality or impairments. If you have any questions relating to accessibility or support, please contact us at diversiteit.HR@kuleuven.be.

REFERENCES
