



THE UNIVERSITY OF ZAMBIA
SCHOOL OF NATURAL SCIENCES
DEPARTMENT OF BIOLOGICAL SCIENCES

CALL FOR APPLICANTS

1 POSITION FOR A PHD CANDIDATE

The School of Natural Sciences at the University of Zambia (UNZA) is seeking to recruit a PhD candidate under a project that is a collaboration between UNZA and Wageningen University in the Netherlands. The project is funded through FoodShot Global and Wageningen University.

The project

Plants interact with a diverse range of soil micro-organisms via their roots. These interactions can enhance plant growth by helping plants with the uptake of plant growth limiting nutrients, or by reducing infections by plant pathogens. When plant roots are used in food preparation as raw or dried roots, the root associated microorganisms can play an important role in the transformation of the raw materials into the food or drink intended for human consumption. In Zambia roots of several plant species are used in the traditional fermentation of cooked grains into the non-alcoholic beverage munkoyo. However, a comprehensive overview of which plant species are used, their associated root microorganisms, and their differential impacts on munkoyo fermentation, is missing.

In this project we aim to elucidate the ethnobotany, ecology and microbiology of Zambian plant species that are used in fermentation of cooked grains into the traditional fermented non-alcoholic beverage munkoyo. This endeavour will comprise exploring the plant species used in fermentation of munkoyo and occurrence of these plant species in terms of habitat and soil type, and their distinctive features as compared to (co-occurring) toxic Zambian plant species erroneously used in munkoyo fermentation. Furthermore, we aim to explore the root microbes associated with the plant roots used in fermentation of munkoyo, and their relation to the microbial communities that drive the fermentation process and underlie its distinct properties.

Fields of interest: (soil/root) microbial ecology, plant taxonomy and ecology, functional microbiology, food fermentation.

Supervisors and collaborators: Dr Agripina Banda, Dr David Chuba (UNZA); Prof Gerlinde De Deyn, Dr Sijmen Schoustra, Prof Eddy Smid (Wageningen University).

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General information and application procedure for this position

For this position a Master degree in a relevant field is required. The PhD project has a duration of four years and is aimed at a Zambian PhD candidate. The PhD candidate will perform half of the PhD work at UNZA (Zambia) and half the work in Wageningen (The Netherlands) and will graduate from Wageningen University. A stipend will cover stay and all expenses when in Wageningen and some expenses when in Zambia.

To apply, submit (a) a cover letter (max 2 pages) outlining your motivation and suitability for the project, (b) your CV (max 4 pages) including names and contact details of two potential references and (c) scans of your academic bachelor and master transcripts. All these materials should be submitted by email to the contact email addresses in Wageningen (gerlinde.dedeyn@wur.nl) and in Zambia (agripina.banda@unza.zm). Deadline for applications is Friday 11 October 2019. Interviews are planned for the week of 28 October for which shortlisted candidates will be contacted. These interviews will be held in Lusaka. PhD projects are planned to start in January 2020.

