

Function: PhD Candidate

Department: Africa Centre of Excellence for Mycotoxin and Food Safety (ACEMFS) at the Federal University of Technology, Minna 100%

Start: 1 January 2024

Profile

- Master's degree or equivalent in Food Safety, Food Toxicology, Biochemistry, Molecular Biology and Bioinformatics, Microbiology, Veterinary Medicine, Medicine & Surgery, Pharmacy, Chemistry, Food Science, Animal Science, Crop Science, Plant Pathology or a related field;
- You have outstanding academic study performances;
- You have a strong interest in food safety, microbiology, mycology, analytical techniques.
- You have hands-on/some experience in chromatography (e.g. analyses using liquid chromatography coupled to tandem mass spectrometry (LC-MS/MS));
- You have experience and/or a strong interest in data-interpretation on the abovementioned techniques;
- Excellent English writing and communication skills are mandatory;
- You want to work in a multi-disciplinary, international and intellectually challenging environment;
- You act with attention to quality, integrity, creativity, and cooperation;
- You are flexible, responsible and able to work independently as well as in team;
- You are eager to work with a team of researchers at the Federal University of Technology Minna, Ghent University and the National Research Council of Italy, Institute of sciences of food production (CNR-ISPA) and other (inter)national partners; and
- Willing to travel both nationally and internationally;

Job description

Joint PhD with the Federal University Of Technology, Minna (FUTMinna), Nigeria and Ghent University (UGent), Belgium on the topic "Improving the quality culture in the Kunun zaki value chain in Nigeria with focus on mycotoxin reduction". A research stay at CNR-ISPA, Italy is included as well.

Are you passionate about improving food safety from farm to fork? Do you want to apply for a multi-disciplinary & innovative project aiming to improve food safety in African countries?

In the framework of a recently granted Horizon Europe project, UP-RISE, a 45 months joint PhD-position at FUTMinna, UGent and CNR-ISPA is available for a highly motivated scientist under supervision of Prof. Hussaini Makun (FUTMinna/ACEMFS), Dr. Antonella Susca (CNR-ISPA), Dr. Vincenzo Lippolis (CNR-ISPA), Dr. Celine Meerpoel (UGent) and Prof. Sarah De Saeger (UGent).

The UP-RISE EU-African Union (AU) project integrates food safety practices associated with mycotoxin contamination into all aspects of food production, distribution, marketing and consumption in the AU and provides tangible tools and strategies to enhance inclusive participation in the improved African Food Safety System (AFSS) at the local, national and regional level. UP-RISE activities are aligned with the current AU Food Safety Strategy for Africa, focusing on 3 regions of the AU with field work in 5 target member states (Benin, Côte d'Ivoire, Nigeria, Kenya, and South-Africa). UP-RISE assembles 5 building blocks for knowledge generation and implementation: 1) Roadmaps for a shared quality culture and possible integration of the informal sector in the AFSS; 2) Strengthening the food safety regulatory framework with focus on mycotoxins in both formal and informal sectors; 3) Early warning to prevent mycotoxin contamination and adapt to climate change; 4) Prevention of food losses and improving food safety by providing innovative microbiome-based solutions for mycotoxin reduction and nutritious food and 5) Co-creation, training and mentoring. In total, nine joint PhD students will work in a complementary way to contribute to the building blocks, each with a specific focus on a fermented food value chain.

You will be responsible for:

- Carrying out research mainly focusing on mycotoxins, related to the traditionally fermented food Kunun zaki and its corresponding value chain, which will contribute to improved food quality and safety.
- Going to the field for sampling
- Working in the labs with focus on mycotoxin analysis using rapid tests and liquid chromatography tandem mass spectrometry techniques.

- Writing reports, publishing journal articles and meeting research output targets.

We are searching for a PhD-researcher, who will reside at FUTMinna, Nigeria (30 months), CNR-ISPA, Bari, Italy (8 months), and Ghent University, Belgium (7 months) and will join the research teams of Prof. Hussaini Makun, Dr. Antonio Moretti and Prof. Sarah De Saeger in a dynamic, challenging and inspiring environment.

The Africa Centre of Excellence for Mycotoxin and Food Safety, Federal University of Technology Minna (Professor Hussaini Anthony Makun, Dr. Hadiza Lami Mohammed and Dr. Helen Shnada Auta) is an academic and research based establishment which focuses on surveillance and development of mitigation strategies against the health impact of microbial and chemical contaminants in foods and feeds with a view to ensuring a safe, controlled and sufficient food supply that will support economic growth and public health in Africa. The chemical contaminants of interest are mainly mycotoxins without ignoring veterinary drugs and pesticide residues, toxic metals and industrial toxins.

The **Centre of Excellence in Mycotoxicology and Public Health (UGent, Profs De Saeger & De Boevre)** is specialized in the development of analytical methodologies for the detection and quantification of small molecules, with a major focus on mycotoxins, which are highly prevalent toxic fungal-derived dietary contaminants. For more than 25 years, a comprehensive mycotoxin analytical platform has been built which consists of LC-(HR)MS/MS methods for (un)targeted multi-mycotoxin analysis in diverse matrices, as well as rapid immunoassay-based screening methods making use of ELISA, LFIA and capacitive biosensors.

PhD applicant requirements

Candidate for admission to the PhD programme of the Africa Centre of Excellence for Mycotoxin and Food Safety shall have the following requirements:

- Candidates applying for PhD must have minimum of five 'O' level credit passes in NECO/WAEC/NABTEB or its equivalent for international students which must include English/French, Mathematics and any other (three) relevant science subjects (Chemistry, Biology and Physics) at not more than two sittings.
- Nigerian applicants must have National Youth Service Corps (NYSC) certificate or NYSC exemption certificate.
- Candidates should ensure their Academic Transcripts are received on time to allow for consideration of the application.
- Applicants for admission to PhD shall be Master's Degree graduates and must have attained an average performance of 'B' grade or weighted average of 60% or a minimum CGPA of 3.50
- Applicants should ensure that their research proposals are received on time for consideration of the application.
- Candidates must provide three referees, one of whom must be his/her supervisor or an academic referee.

Notes:

- Candidates from non-English speaking countries (Francophone Countries) are to undergo proficiency training in English Language (maximum of six months). The waiting period for the training is not counted as part of candidate's academic programme duration.
- Admission shall strictly be in line with the admission guidelines of Postgraduate schools, Federal University of Technology, Minna.
- Admission into the PhD programme is TWICE a year (ie at the beginning of new academic session and commencement of second semester of every academic session).

How to apply

Please submit a cover letter in which you specify why you are interested in the position and why you consider yourself a suitable candidate (400 words max), a full CV, a full transcript of academic qualifications (academic records) to date (degrees and grade list) and a list of at least 2 contact persons

(with name, e-mail, address, phone number) for letters of reference. All documents as one PDF document should be sent to Prof. Hussaini Makun (hussaini.makun@futminna.edu.ng), copying Ms. Hadiza Lami (hadizalami@futminna.edu.ng), Dr. Antonella Susca (Antonella.susca@ispa.cnr.it), Dr. Vincenzo Lippolis (vincenzo.lippolis@ispa.cnr.it) and Prof. Sarah De Saeger (Sarah.DeSaeger@UGent.be), before **November 15th, 2023** with email subject [**PhD UP-RISE – name applicant**]. Top-ranked candidates will be invited for interviews.