



CALL FOR APPLICATIONS

PHD IN FOOD SCIENCE SCHOLARSHIP

We are undertaking a collaborative project with interface between Food Science and Technology, Nutritional sciences and Analytical Chemistry between Prof. Willis Owino from the Department of Food Science and Technology, Jomo Kenyatta University of Agriculture and Technology (JKUAT, Kenya) and Dr Laure Guilhaudis and Corinne Loutelier-Bourhis from the NMR and mass spectrometry groups of the COBRA Laboratory, University of Rouen Normandy, France. The project is funded jointly by the Co-operation Attaché for Science and Higher Education, French Embassy to Kenya and the Normandy Region in connection with the XL-Chem Program.

The objective of this project is to determine the optimal harvest maturity of baobab fruit that eliminates microbial and mycotoxins contamination to ensure food safety of the pulp and minimize postharvest losses. To this end, we plan to develop an approach combining food sciences and analytical chemistry by NMR (Nuclear Magnetic Resonance) and MS (Mass spectrometry) to (1) identify and quantify biologically active metabolites with functional properties or possess nutritional/health benefits, that are present in baobab fruit pulp at different stages of maturation (2) discriminate and distinguish the metabolites that contribute to the differences in characteristics and quality of fruit pulp (3) identify the harvest maturity of baobab with optimal quality characteristics in different agroecological zones.

The project is seeking to recruit for a full scholarship, 1 PhD student to be attached to the project and eligible candidates interested are invited to apply.

Host laboratories & research environment

The first year of the project will involve fruit sample collection along the Eastern and coastal parts of Kenya and Laboratory analyses will take place at the Department of Food Science and Technology, JKUAT in Kenya (<https://www.jkuat.ac.ke/departments/foodscience/>).

The following two years will take place at the COBRA laboratory (<https://www.lab-cobra.fr/>). The lab is localized in the Mont Saint Aignan University campus (<https://www.univ-rouen.fr/university-of-rouen-normandy/>), in the North west of Rouen (France).

The selected candidate will be recruited and register for the PhD program at the University of Rouen Normandie. He/she will benefit from the state-of-the-art analytical instrumentation

park available at the COBRA laboratory for the metabolomics studies (Including liquid state NMR 600 MHz spectrometer, liquid state NMR 600 MHz spectrometer equipped with a cryoprobe, GC-TOF-MS, LC-Q-TOF-MS, LC-IMS-Q-TOF-MS, FTICR-MS spectrometers).

Eligibility

- Applicant should have an M.Sc. in Food Science and Technology, Food Nutritional Sciences, Biochemistry, or Analytical chemistry.
- Applicants should not be holding another PhD scholarship, or currently be enrolled in any PhD Program.
- Applicants must demonstrate ability to publish in peer reviewed reputable journals and give presentations in scientific conferences.
- Demonstratable prior knowledge and or research on baobab fruit pulp, MS and/or NMR spectroscopy will be an added advantage.
- Rigour, organizational and statistical skills are expected, considering the type and volume of data which will be obtained via the various experimental methods.
- Fluency in English (oral and written) is mandatory. Moreover, the candidate will have to demonstrate his/her capacity to work on a multidisciplinary research topic, and also in a multicultural research team.

Application procedure and complementary information:

Candidates are encouraged to contact any of the project coordinators *via* e-mail (laure.guilhaudis@univ-rouen.fr and corinne.loutelier@univ-rouen.fr and willis@agr.jkuat.ac.ke) for any clarification or consultations.

Interested applicants are required to submit the following documents via email to willis@agr.jkuat.ac.ke; **A CV, a motivational letter, scanned copies of 3rd & 4th undergraduate transcripts, B.Sc. Certificate and M.Sc. academic transcripts and certificates, journal publications, Copy of ID/Passport as well as recommendation letters from two academic and/or professional referees.** The deadline for submitting applications is close of business **May 16th 2023**. Shortlisted applicants will be invited for oral interview.

Expected starting date: 01/10/2023

Contacts:

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