

Workshop on Fungal Molecular Identification: Sample Collection, DNA Extraction, Agarose Gel Electrophoresis, PCR Amplification and Sequence Analysis

23-25 May 2024, Yaounde, Cameroon



CALL FOR APPLICATION, deadline 20th May 2024

Description

Fungi represent the second largest group of eukaryotic organisms on earth, with estimates ranging from 1.5 to 5.1 million species. Members of the fungal kingdom play significant roles in human life and have the ability to occupy a wide variety of natural and artificial niches. Identification of fungi to species level is paramount in both basic (ecology, taxonomy) and applied (genomics, bioprospecting) applications in scientific research. This is especially true for natural products researchers working with fungi as a source of bioactive secondary metabolites. Scientific names are crucial in communicating information about fungi, enabling researchers to identify other closely related species to better predict evolution of chemical gene clusters or to prioritize taxonomically related strains, when a productive strain may attenuate production of key bioactive compounds. More importantly, taxonomic identification of fungi is essential if industrial, pharmaceutical or agrochemical products are to be derived from a fungal strain or fruiting body. Fungi are used as food, medicine, mycoremediation, they produce a wealth of natural products; they have major industrial applications and are well-known for their ability to produce secondary metabolites with biological activities that can be used to control plant pathogens or for drug discovery.

The purpose of this workshop is to expose mycologists, plant pathologists, soil biologists and those who work with fungi to learn the theoretical, hands-on laboratory practical on DNA extraction and PCR amplification and sequence analysis. Lectures will be given by experts on fungal sample collection from diverse sources, DNA extraction (from mushrooms, from cultures of soil samples, from fungal pathogens isolated from crops, AMF in the soil and root-associated AMF etc.), agarose gel electrophoresis, PCR amplification and Sequence analysis. Hands-on practical's will be done on DNA extraction, agarose gel electrophoresis, PCR amplification and Sequence analysis.

Learning Objectives

- Expert lectures on sample collection, DNA extraction, agarose gel electrophoresis, PCR amplification and Sequence analysis
 - After attending this workshop, attendees will be able to have knowledge on good practices on sample collection, DNA extraction protocol, PCR amplification and Sequence analysis.
- Hands-on practical on DNA extraction, agarose gel electrophoresis, PCR amplification and Sequence analysis
 - The attendee will do hands-on practical on DNA extraction and PCR amplification, and learn
 - how to do sequence analysis.

Target Audience

The target audience are Master and PhD students, Postdoctoral and Early and mid-Career researchers working on the fungi (Mushrooms, Mycorrhizal fungi, Pathogenic fungi etc). **Maximum 30 participants.**

Workshop Venue

FINISTECH, 14th Missionary Road, Montee des Soeurs Simbock, Yaounde

Cost of Attending the Workshop

The course will accommodate 30 participants. The cost of the course is 50,000frs for Cameroonians paid to MTN momo number: 674625339 names on momo: Rosemary Tonjock.

For International participants, the course fee is 200 USD paid through money gram or western Union.

The workshop fee will subsidize the cost of reagents for DNA extraction, agarose gel electrophoresis, PCR amplification, two coffee breaks and meal. Participants will cover their transport fare and accommodation. A certificate of participation will be given.

Application procedure

The application documents consist of:

1. A curriculum vitae
2. A document showing your level of education
3. Proof of payment of course fees

Complete applications should be sent by email to the following address on or before **May 20th, 2024**:

- Prof. Tonjock Rosemary Kinge, The University of Bamenda, Cameroon
- **E-mail:** rosemary32us@yahoo.com, **Tel:** +237 674625339

Organizers

Inqaba, Biotech, Carrefour Scallom, Yaounde, Cameroon (Just beside EHS)

Prof. Tonjock Rosemary Kinge, University of Bamenda

Prof. Tofel Haman K., University of Bertoua

Facilitators

Staff of Inqaba, Yaounde, Cameroon

Prof. Tonjock Rosemary Kinge, University of Bamenda

Prof. Tofel Haman K., University of Bertoua

Prof. Mbouobda Hermann, University of Bamenda, Cameroon

Dr. Oba Ramould, University of Yaounde 1

Dr. Hyppolite Aignon, University of Parakou, Benin

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