Open Call: Fulbright Specialist Program
Chemistry Education Open Project

The Fulbright Specialist Program (FSP) is seeking a highly qualified professional to serve as a Specialist for a 42 day project, ‘Plants Extraction: Advanced Tech-Based Solutions’ to take place in Egypt.

The Fulbright Specialist Program (FSP), part of the larger Fulbright Program, was established in 2001 by the U.S. Department of State, Bureau of Educational and Cultural Affairs (ECA). The program pairs highly qualified U.S. academics and professionals with host institutions abroad to share their expertise, strengthen institutional linkages, hone their skills, gain international experience, and learn about other cultures while building capacity at their overseas host institutions. Grant benefits include international round-trip economy class airfare, transit allowance, all applicable visa fees, a daily honorarium, enrollment in a limited health benefits program, lodging, meals, and in-country transportation.

Host Institution: Beni Suef University
Project Title: ‘Plants Extraction: Advanced Tech-Based Solutions’ (P008241)
Proposed Timeframe: Any 42 days between July 1 and December 31, 2023, with flexibility pending the selected applicant’s availability.
Location of Project: Beni Suef, Egypt

Project Description:
RIMAP is concerned with upgrading the technology for the extraction of medicinal and aromatic plants to become more efficient and less hazardous to the environment. Currently, RIMAP only uses traditional extraction methods such as Liquid-Liquid extraction, which has a number of drawbacks such as being time-consuming, requiring a large amount of solvent, having a risk of thermal destruction of compounds, and the impossibility of complete extraction. This results in a less than optimal quality and quantity and, thereby, less export and income. Therefore, RIMAP conducts research on improving the quality of agriculture in order to increase the yield of medicinal and aromatic plants, and also works on developing extracts, pure compounds, and essential oils with potent activity to be integrated into the manufacturing of cosmetics and pharmaceutics with the aim of supporting the local industry and enhancing the value and the amount of export materials. A Fulbright Specialist is needed to introduce the faculty and students at RIMAP to new extraction methods such as Ultrasound-Assisted Extraction (UAE), Instant Controlled Pressure Drop Technology, Pulsed-Electric Field (PEF), Enzyme-Assisted Extraction (EAE), Pressurized Liquid Extraction (PLE), and Principle Supercritical Fluids (SCF) which are more effective and have lower risks.

Project Activities:
- Lectures and training sessions on plant selection and preserving their quality and the active substance during the extraction process
- Lectures and training sessions on identifying the appropriate extraction method for each plant
- Training sessions on using advanced technologies in plant extraction
- Training sessions extraction methods Consultants with the RIMAP leaders to assess the equipment used in the institution for plant extraction and recommending equipment with the latest technologies in plant extraction
- A one-day workshop would be held for government officials, industry experts, and business company owners
Round table arranged by the Fulbright Commission in Egypt about chemistry education to engage with and share his expertise with a wider audience of academics from different universities in Egypt.

Preferred Qualifications
The host institution is looking to host a specialist with the following qualifications:
- Extensive experience in the field of plants extraction using techniques such as solvent accelerated extraction, supercritical extraction, ultrasound extraction
- Experience in isolation, purification and structure elucidation of pure compounds from plants employing innovative methods
- Significant experience in the extraction of essential/volatile oils from plants utilizing recent technologies

How to Apply
Applicants must meet all program eligibility criteria, including U.S. citizenship. A complete list of U.S. applicant eligibility criteria can be found at https://fulbrightspecialist.worldlearning.org/eligibility-specialists.

Applicants must submit a CV and Statement of Interest (400-word limit) via email to fulbrightspecialist@worldlearning.org no later than Monday, July 10, 2023.

Please note that if you are selected as a potential candidate for this project, you will be required to submit an official application to join the Fulbright Specialist Roster in order to serve as the Specialist for this project. For more information regarding this process and the program, visit https://fulbrightspecialist.worldlearning.org/application-specialists/.