PORTUGUESE-ARMENIAN FRUITFUL COLLABORATION

Due to the secondments to SPC “Armbiotechnology” NAS RA (Yerevan, Armenia) and LNEG (Laboratório Nacional de Energia e Geologia (National Laboratory of Energy and Geology Lisbon, Portugal) under the project Phoenix (H2020-MSCA-RISE-2015 Grant Agreement NUMBER 690925) has been established collaboration between Portuguese and Armenian research groups since 2018.

The project Phoenix gave them a chance to work together and published six joint papers.

Now, research groups are collaborating in the farmework of Armenian project 21T-2I229 “Development of a New Multifunctional Biotechnological Preparation as a Biofertilizer, Biostimulant, Biopesticide” (2021-2024) funded by the Science Committee of the Ministry of Education, Science, Culture and Sport RA.

The project team consists of five researchers. The project coordinator is Dr. Lusine Melkonyan from Armenia, and the project consultant is Dr. Luisa Gouveia from Portugal. They will have secondments to Portugal and Armenia within the framework of the project 21T-2I229. The team members are Dr. Gayane Avetisova, Zhaneta Karapetyan (researcher) and Anna Toplaghaltsyan (junior researcher) from Armenia.

Within the framework of the project, the isolation of nitrogen-fixing bacteria from several soils of Armenia, creation of consortium with microalgae/blue-green algae from LNEG-UBB (Unit of Bioenergy and Biorefineries) microalgae collection, development of the experimental sample and evaluation of its potential in Agricultural point of view is planned. The project full implementation has been planned for 3 years.

The novelty of the project is that for the first time the biotechnological preparation will be developed, which will be based on nitrogen-fixing bacterium and microalga/blue-green alga.

For this stage, the team is carrying out studies on isolation and characterization of nitrogen-fixing bacteria for selecting the most active bacterium (Fig).

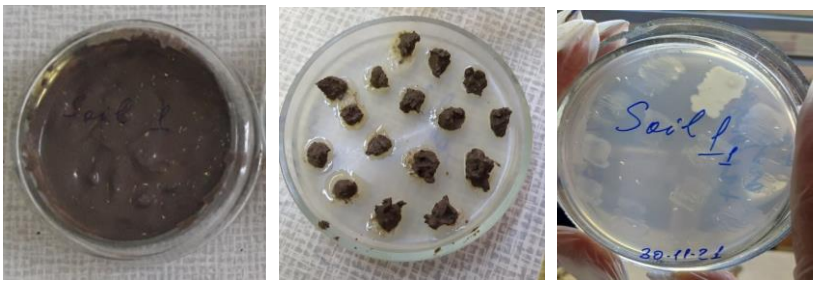

Fig. Isolation of nitrogen-fixing bacteria

This project will allow combining the scientific potential of both sides in Biotechnology of nitrogen-fixing bacteria and microalgae/blue-green algae as well as strengthen the links between LNEG and SPC “Armbiotechnology” NAS RA.