

Molecular Biotechnology at the University of Tirana - Lessons learned from our women researchers

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Abstract

Established in 2007 the Department of Biotechnology of the University of Tirana, served as a pioneer unit in the field facing a lot of challenges, and meeting constant little day by day success thanks to the political and institutional support. Among the first established research directions was the one of Molecular Biotechnology, which proved an interdisciplinary complementarity with microbial, plant, animal and human related projects seeking either the evaluation of cytological, molecular, physiological, genetic characteristics of species of economic or scientific importance, or their use for industrial purposes such as the *in vitro* propagation and conservation of plant material, the improvement of crops via induced mutagenesis, the maintenance and control of the Collection of Industrial Microorganisms, the environmental factorial analysis in service of aquaculture and marine biotechnology, or the use of molecular and immunological tools for human disease diagnostics, etc.

The continuous capacity building through different grants (national, regional, EU) brought the advancement of methodologies, and the use of integrated approaches towards finding solutions to issues such as: The improvement of crop species via physical and chemical mutagenesis; Impact of the quality of waters on the composition of microbiota, on fishery and aquaculture; Improving the quantity of metabolites of interest in a cost and time efficient manner via plant *in vitro* methodologies; Identification of local crop cultivars resistant to biotic and abiotic stresses in the conditions of climate change; Discovery of genetic diversity and resistance to pathogens of local fruit-trees of high and low use, etc.

Teaching the curricula of Programs such as BSc, MSc, MP and PhD in Biotechnology, services offered to third parties, internationalization of the activity, and future objectives to be achieved with the contribution of women lecturers/researchers will also be highlighted in this presentation.