



## FIRST CALL

1<sup>st</sup> International Scientific Conference

“BIOTECHNOLOGY & GENETICS - DEVELOPMENTS AND  
FUTURE CHALLENGES”

(BGIC) 2021

**Organized by:**

**Academy of Sciences of Albania**

**In collaboration with:**



**University  
of Tirana**



**Agricultural  
University of Tirana**



**University of  
Medicine, Tirana**



**Europ. Biotech. Thematic  
Network Association  
(EBTNA)**

**Under the auspices of Acad. Prof. Dr. Skënder Gjinushi,  
President of the Academy of Sciences of Albania**

**ACADEMY OF SCIENCES OF ALBANIA, TIRANA**

**MAY 20-21, 2021**

Academy of Sciences of Albania (ASA) in collaboration with University of Tirana (UT), Agricultural University of Tirana (AUT), University of Medicine of Tirana (UMT) and with the support of European Biotechnology Thematic Network Association (EBTNA) organizes:

1st International Scientific Conference “Biotechnology & Genetics - Developments and Future Challenges” (BGIC-2021)

BGIC-2021 to be held in Tirana, Albania at the venues of the Academy of Sciences will be an opportunity to present the results of contemporary scientific research in Albania and beyond in the field of biotechnology and genetics, in an auditorium where the researchers from universities, scientific institutions, businesses, etc. will exchange their experiences.

Biotechnology is widely recognized to create new opportunities of applications with profound impacts through the societies and economies. BGIC-2021 will highlight the best priorities and potentials in scientific research in the field of biotechnology and genetics and will be an incentive for new challenges in the search for the involvement of modern approach needed to solve various problems of the economy, opening up new applications in health care, agriculture and food production, environmental protection, etc.

Main goals of BGIC -2021 are the:

- Evaluation of the developments of biotechnological and genetic applications in the country in order to promote the cooperation among local capacities;
- Promoting new collaboration among local and foreign institutions in the framework of regional, European and International Programs related to biotechnology and genetics;
- Establishment of new modern scientific research methods and infrastructures for interdisciplinary research and for collaboration among specialists of the fields;
- Beginning of a qualitative leap in applied biotechnology and genetics research in Albanian universities, scientific institutions and industry.

The First Call will be addressed to researchers working in any field of Biotechnology and Genetics related to:

### **Medicine Biotechnology**

- Cytogenetic and molecular genetic testing in the diagnosis of genetic diseases;
- Impact of genomics in the diagnosis and management of rare diseases;
- Molecular genetic characterization of  $\beta$ -thalassemia and sickle cell syndrome;
- Molecules and Genes Regulations of Biological Human Pathways;
- Significance of genetic markers in autoimmune diseases and cancers;
- New perspectives in using bioengineered immune cells in the fight against cancer;
- Biotechnologies Applied in Biomedical Vaccines;
- Importance of Ethical issues in Medical Biotechnology.

## **Pharmaceutical Biotechnology**

- Biopharmaceutical Products, Current Applications in Therapy and Market Analysis;
- Formulation and Analysis of Biotech Products;
- Biopharmaceutical Pharmacovigilance and Regulatory Affairs;
- Bioactive Natural Products as pharmaceuticals, nutraceuticals and cosmeceuticals;
- Genetic and Chemical Diversity in Medicinal and Aromatic Plants.

## **Populations Genetics**

- Populations genetics of cultivated and spontaneous plants;
- Biodiversity and genetic diversity of animal populations;
- Genetics of human populations:
  - Genetic relationships of Albanian populations evaluated by different markers;
  - Clinical and Medical populations genetics;
  - Physical activity, health nutrition and recreation in Albanian human populations.

## **Plant Biotechnology**

- Plant Genetic Improvement;
- Plant Tissue Culture Innovations and Commercial Production;
- Molecular Markers and Marker Assisted Selection in Crop Plants;
- Plant Molecular Diagnostics;
- Crop Protection Applications;
- Plant Molecular Farming;
- Biodiversity and *in vitro* Conservation;
- Biosafety, Bioethics and IPR Issues in Plant Biotechnology.

## **Animal Biotechnology**

- Animal Genetic resources conservation;
- Animal Tissue and Cell Culture (Growth and Propagation, Cryopreservation);
- Artificial Inseminations and *in vitro* Fertilization;
- Biotechnology derived Therapeutics;
- Veterinary Diagnostic System (Molecular and Serologic) on detection and control of animal infectious diseases;

- Biotechnological Methods of the Improvement of Health and Welfare of livestock animals and their products;
- Detection of mislabeling and species substitution in animal products by molecular methods;
- Food quality and safety for livestock and aquaculture;
- Utilization of organic and mineral wastes as well as gases eliminated from animals.

### **Food Biotechnology**

- Food Processing (Culture starters, Enzymes, Immobilized enzymes and cells, etc.);
- New bioactive compounds, as ingredients in functional foods and packaging materials;
- Biomolecules as the markers for authenticity, traceability, geographical origin and development of food products;
- Genetic characterization of autochthonous food resources for forming cheese potential of milk and technological and nutritional quality of olive oil and grape;
- Food Safety (Biomarkers for toxic substances presence, contaminants, allergens, pesticides, microorganisms to the food complex systems, Food Preservation, etc.).

### **Environmental Biotechnology**

- Molecular Ecology;
- Contaminated land and bioremediation (Microbes and metabolism);
- Phytoremediation of Organic Pollutants;
- Phytoremediation of Inorganics;
- Constructed Wetlands;
- Production of Biofuels and Plant Biomass.

## ***IMPORTANT DATES***

|                      |   |
|----------------------|---|
| <b>15 March 2021</b> | <b>Abstract submission deadline</b>       |
| <b>31 March 2021</b> | <b>Notification</b>                       |
| <b>15 April 2021</b> | <b>The full-paper submission deadline</b> |

**Submission of abstracts will be via EasyChair:**

<https://easychair.org/conferences/?conf=bgic2021>

### **Contact point:**

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**All e-mails should have a subject line starting with: *BGIC2021***

### **Secretary of Conference:**

**M.Sc. Brunilda Çuko**, Faculty of Natural Sciences, University of Tirana

**M.Sc. Ilirjana Bitri**, Faculty of Natural Sciences, University of Tirana

**Ms. Blerina Shkreta**, Academy of Sciences of Albania.

**Ms. Enkelejda Misha**, Academy of Sciences of Albania.

### **Other information**

The Book of Abstracts will hold an ISBN.

Selected articles will be published at JNTS (Journal of Natural and Technical Sciences of the Academy of Sciences of Albania) following the rules of the journal.

The conference will be held on 20 May and on 21 May there will be a field trip to sites with cultural and tourist tradition.

Participation at Conference is free of charge but, only presenting authors can have the conference materials and are invited to attend coffee breaks and cocktail. Participants at excursion on the second day of the Conference will pay a fee of 30€.

## ***COMMITTEES OF THE CONFERENCE BGIC-2021***

### **Honorable Committee**

**Academician Prof. Dr. Skënder Gjinushi**, President of Academy of Sciences of Albania

**Academician Shaban Sinani**, Scientific Secretary of Academy of Sciences of Albania

**Academician Vasil Tole**, vice-President of Academy of Sciences of Albania

**Prof. Dr. Munis Dundar**, President of EBTNA, European Biotechnology Thematic Network Association.

**Prof. Dr. Idriz Vehapi**, Dean of the Faculty of Mathematical and Natural Sciences, University of Prishtina “Hasan Prishtina”, Republic of Kosovo.

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**Acad. Prof. Dr. Neki Frashëri**, Head of Section of Natural & Technical Sciences, Academy of Sciences of Albania.

### **Scientific Committee**

**Acad. Prof. Dr. Ilia Mikerezi**, Co-Chairman of the Unit for Biotechnology & Genetics, Academy of Sciences of Albania.

**Acad. Prof. Dr. Efigjeni Kongjika**, Co-Chairman of the Unit for Biotechnology & Genetics, Chairman of the Commission for Biology, Agriculture & Veterinary, Academy of Sciences of Albania.

**Prof. Dr. Maurizio Lambardi**, Senior Researcher of Plant Biotechnology, Institute of BioEconomy (IBE), CNR-National Research Council of Italy.

**Prof. Dr. Matteo Bertelli**, Professor on Medicine Biotechnology, president of MAGI Balkan’s Group, Honorary Member of EBTNA (European Biotechnology Thematic Network Association)

**Prof. Davide Pettener**, Professor on Anthropology, University of Bologna, Department of Biology, Geology and Environment Sciences, Italy

**Prof. Dr. Ioannis Savaidis**, Professor on Food Microbiology, University of Ioannina, Greece.

**Prof. Dr. Konstantinos Petrotos**, Professor on Food Engineering, Department of Biosystems Engineering, University of Thessaly, TEI Larisa, Greece

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**Prof. Dr. habil Bajram Berisha**, Professor on Biotechnology, Animal Physiology and Immunology, University of Pristina, Republic of Kosovo and Visiting Professor at Technical University of Munich, Germany, Department of Pharmacy.

**Prof. Dr. Arben Myrta**, Professor on Plant Protection, European Product Development Manager, Certis Europe BV, Utrecht (The Netherlands).

**Prof. Dr. Agim Ballvora**, Professor on Molecular Biology and Biotechnology, INRES Plant Breeding, Rheinische Friedrich-Wilhelm-University, Bonn, Germany

**Prof. Dr. Arban Domi**, Researcher on Molecular Biology, Virology and Vaccine Development, Scientific Director at Blue Lake Biotechnology, Inc., Greater New York City Area, United State.

**Acad. Prof. Dr. Genc Sulçebe**, Professor on Immunology and Immunogenetics, University of Medicine, Tirana.

**Acad. Prof. Dr. Ilirjan Malollari**, Professor on Chemical Engineering on Environmental Pollution Control and Waste Water Treatment, University of Tirana, Albania.

**Prof. Dr. Anila Babameto-Laku**, Professor on Medical and Molecular Genetics, University of Medicine, Tirana.

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**Prof. Dr. Ledjan Malaj**, Professor on Pharmacy Biotechnology, University of Medicine, Tirana.

**Prof. Ass. Dr. Silva Bino**, Researcher and Professor on Infectious Diseases, University of Medicine, Tirana and Institute of Public Health.

**Prof. Ass. Erinda Lika**, Vice Rector of Science and Projects, Agricultural University of Tirana.

**Prof. Dr. Ilir Kristo**, Dean of the Faculty of Agriculture and Environment, Agricultural University of Tirana.

**Prof. Dr. Renata Kongoli**, Professor on Food Sciences, Technology and Food Safety, Faculty of Biotechnology and Food, Agriculture University of Tirana.

**Prof. Dr. Bisena Bijo**, Professor on Food Processing and Quality, Veterinary Medicine, Veterinary Public Health Department, Agricultural University of Tirana.

**Prof. Dr. Aida Bani**, Professor on Environmental Biotechnology and Phytoremediation, Agricultural University of Tirana and Chairman of the Agro-Environmental & Economic Management Centre, Albania

**Prof. Dr. Dhurata Bozo**, Head of Department of Research in Physical Activity, Health and Recreation, Institute for Sport Research, Tirana University of Sports.

**Prof. Dr. Anila Mitre**, Professor on Human Genetics and Biotechnology, Department of Biology, University of Tirana.

## **Organizing Committee**

**Acad. Prof. Dr. Neki Frashëri**, Head of Section of Natural & Technical Sciences, Academy of Sciences of Albania.

**Prof. Ass. Dr. Valbona Sota**, Professor on Plant Biotechnology, Department of Biotechnology, University of Tirana, Member of the Young Academy of Albania.

**Dr. Anita Berberi**, Technical Secretary of Section of Natural & Technical Sciences, Academy of Sciences of Albania.

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**Prof. Dr. Tommaso Beccari**, Professor on Biochemistry and Molecular Biology of Lysosomal Enzymes, Department of Pharmaceutical Sciences University of Perugia, Italy, Member of Executive Committee of EBTNA.

**Prof. Dr. Natale Capodicasa**, Professor on Microbiology, Director of MAGI BALKANS Rare Genetic Diseases, Albania.

**Prof. Dr. Ariola Bacu**, Professor on Molecular Biology & Genetic Engineering; Biotechnology Department, University of Tirana, Albania, EBTNA Representative in Albania.

**Prof. Dr. Alban Ibraliu**, Professor on Plant Genetic Improvement, Vice Rector of Agricultural University of Tirana.

**Prof. Dr. Danka Cakovic**, Professor on Plant Biology, Head of Biology Department, University of Montenegro, Podgorica.

**Prof. Dr. Sonja Gadzovska Simic**, Professor on Plant Biotechnology, Department of Plant Physiology, Institute of Biology, Faculty of Natural Sciences and Mathematics, University "Ss. Cyril and Methodius", North Macedonia.

**Prof. Ass. Dr. Bekim Gashi**, Professor of Plant Physiology and Biotechnology, Department of Biology, University of Pristina, Republic of Kosovo.

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**Prof. Dr. Klementina Puto**, Professor on Microbiology of Water Ecosystems. Department of Biotechnology, University of Tirana, Albania.

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## **INSTRUCTIONS FOR ABSTRACT PREPARATION AND SUBMISSION**

All abstracts should contain the following sections:

**Scientific topic:** Please choose one from the scientific topics listed

**Title** (Font Times New Roman, Size 12 pt, Bold Block Letters, line space 1)

**Authors** (Font Times New Roman, Size 11 pt, line space 1) The name of the presenting author should be in Bold.

**Authors Affiliation** (Font Times New Roman, Size 11 pt, line space 1)

**Body text (Aim of study, Results, Conclusions)**

(Font Times New Roman, Size 12 pt, **not more 300 words**, line space 1)

**For the submission of abstract, a free account at EasyChair of at least one of authors is required.**

**With submission, authors declare that the scientific presentations have not been presented or published before.**

**Additional information on Full Paper preparation and details of the Program of Conference will be given in the Second Call for Proposals.**