



ACADEMY OF SCIENCES OF ALBANIA

1st International Scientific Conference

BIOTECHNOLOGY & GENETICS

DEVELOPMENTS AND FUTURE CHALLENGES (BGIC)



May, 20 – 21, 2021

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

In collaboration with:



University
of Tirana



Agricultural
University
of Tirana



University of Medicine,
Tirana



EBTNA

CONFERENCE PROGRAM

Tirana. 2021

BGIC, 2021 – Detailed program

FIRST DAY - MAY 20, 2021 at the ACADEMY OF SCIENCES OF ALBANIA	
08.00 – 09.00	Registration of Participants
CONFERENCE OPENING ‘ALEKS BUDA’ HALL Moderators: Acad. Ilia Mikerezi, Prof. Anila Hoda	
09.00 – 09.10	Acad. Skender Gjinushi - President of the Academy of Sciences
09.10 – 09.20	Prof. Idriz Vehapi - Dean of the Faculty of Mathematical and Natural Sciences, University of Pristina, Kosovo
09.20 – 09.25	Prof. Dr. Munis Dunder - President of EBTNA

PLENARY SESSION ‘ALEKS BUDA’ HALL Moderators: Acad. Ilia Mikerezi, Prof. Anila Hoda	
09.25 – 09.45	On developing the 7 th sense, ...or, developing the diagnostics of the future in the 21th Century? Prof. Robert Marks
09.45 – 10.05	Biotechnology for plant genetic resource conservation: an overview of <i>in vitro</i> -banking and cryobanking in the world Prof. Maurizio Lambardi
10.05 – 10.25	Agromining: farming for metals from natural soils to industrially contaminated sites Prof. Guillaume Echevarria
10.25 – 10.45	MAGI Balkans, a laboratory for the diagnosis of rare genetic diseases in Albania Prof. Matteo Bertelli, Dr. Natale Capodicasa
10.45 – 11.00	Coffee Break

MEDICAL BIOTECHNOLOGY & PHARMACEUTICAL BIOTECHNOLOGY

ORAL PRESENTATIONS ‘ALEKS BUDA’ HALL	
Moderators: Prof. Anila Babameto Laku	
11.00 – 11.10	The role of HLA genotyping in immune mediated disease Genc Sulçebe
11.10 – 11.20	Next Generation Sequencing approach for a wide range of genetic diseases: The experience of Medical Genetics Service in Albania “ Anila Babameto-Laku
11.20 – 11.30	Beta Thalassemia mutations in Albania and their contribution in patients’ treatment and follow up Manika Kreka, Eleni Nastas, Anila Babameto, Alma Idrizi, Etleva Refatllari, Donjeta Bali, Daniela Nika, Bledi Kreka, Anila Godo

11.30 – 11.40	Role of genetic testing in neurological diseases Altin Kuqo, Pavlo Djamandi, Jera Kruja
11.40 – 11.50	Nucleic acid testing technology (NAT) yield for HBV/HCV/HIV in blood donors in Albania Irena Seferi, Merita Xhetani, Rinalda Skendaj, Viola Shano
11.50 – 12.00	Formulation and stability of a natural cosmetic product Brunilda Myftari, Ela Hoti, Klea Bici, Ledjan Malaj
12.00 – 12.10	Antibiotic use in patients with covid-19: present and future perspectives Silvi Bozo
12.10 – 12.20	Orphan drugs, as examples of biopharmaceutical products. Their characteristics, role & presence in the Albanian healthcare system Erjon Troja, Ranela Ceci, Delina Troja, Vilma Papajani, Paska Cullufi
12.20 – 13.00	Lunch Break

E-POSTER PRESENTATIONS	
13.00 – 13.04	Malignancies and molecular cytogenetics Donjeta Bali, Anila Babameto-Laku, Anila Godo, Mirela Xhafa, Mirzana Kapllanaj, Dorina Roko, Besmira Basholli
13.04 – 13.08	Immunological and molecular study of chronic hepatitis B infection in Albanian population Anila Mitre, Blerta Laze
13.08 – 13.12	Use of hydrophilic polymers for topical drug administration Ledjan Malaj, Ela Hoti, Brunilda Myftari, Drilon Gashi, Zehadin Gashi
13.12 – 13.16	The contribution of array CGH in establishment of genetic diagnosis in undiagnosed Albanian's pediatric patients Dorina Roko, Anila Babameto-Laku, Anila Mitre, Chris Konialis, Constantinos Pangalos
13.16 – 13.20	The comparison of RT-PCR assays, EURORealTime and Cepheid Xpert Xpress used for detection SARS-CoV-2 Anila Mitre, Sidorela Dervishi, Ina Toska, Maria Janaq, Shege Ceci, Iris Markja
13.20 – 13.24	Evaluation of effects of storage time and temperature in fresh plasma on routine laboratory coagulation tests Anila Lika Beqja, Ejona Marra, Sidorela Dervishi
13.24 – 13.28	Protein pathway network modeling of the most influenced nodes established through two different network reduction techniques Inva Koçaj, Eliana Ibrahim, Malvina Marku, Dode Prenga
13.28 – 13.32	Knowledge of 18 to 25 year old Albanian male students regarding the human papillomavirus (HPV) infection and vaccination Fjoralda Bakiri, Ergena Abazi
13.32 – 13.36	Chemical composition and structure of glandular trichomes on two ecotype of <i>Origanum vulgare</i> L. subsp. <i>hirtum</i> cultivated in Albania Jonida Balla, Zhaneta Zekaj

PLANT BIOTECHNOLOGY

ORAL PRESENTATIONS 'ALEKS BUDA' HALL	
SESSION I Moderator: Prof. Ariola Bacu	
13.40 – 13.50	When plants do not age: potential and application of micropropagation between research and application Maurizio Lambardi, Carla Benelli
13.50 – 14.00	Deep genotyping reveals specific selection footprints of agro-ecosystems in barley population Agim Ballvora, Michael Schneider, Jens Leon
14.00 – 14.10	<i>In vitro</i> and <i>in silico</i> insights on the neuroprotective activity of <i>Hypericum perforatum</i> L. hairy root cultures Marija Todorovska, Jovana Georgieva, Oliver Tusevski, Sonja Gadzovska Simic
14.10 – 14.20	Phenolic compounds production and antioxidant activity in <i>Hypericum perforatum</i> L. hairy root cultures elicited with salicylic acid Bedri Gjureci, Marija Todorovska, Jovana Georgieva, Oliver Tusevski, Sonja Gadzovska Simic
14.20 – 14.30	Droplet-vitrification and V cryo-plate, two procedures to improve <i>Stevia rebaudiana</i> cryopreservation Carla Benelli
14.30 – 14.40	Comparison of efficiency of the temporary immersion liquid culture using SETIS and ElecTIS bioreactors with conventional tissue culture systems of wild pear, <i>Pyrus pyrastrer</i> L. Efigjeni Kongjika, Valbona Sota, Brunilda Çuko, Carla Benelli, Maurizio Lambardi
14.40 – 14.50	Coffee Break

SESSION II Moderator: Prof. As. Valbona Sota	
14.50 – 15.00	Effective use of a double phase culture system and activated charcoal on <i>in vitro</i> propagation of <i>Malus sylvestris</i> (L) Mill. Valbona Sota, Carla Benelli, Brunilda Çuko, Efigjeni Kongjika
15.00 – 15.10	Plant biotechnology applications: from plant protection to plant molecular farming Slavica Matic, Emanuela Noris, Arben Myrta
15.10 – 15.20	Early molecular detection of fruit-trees pathologies and importance of services to agribusiness in Albania Ariola Bacu, Desareda Mero
15.20 – 15.30	Serological and molecular diagnosis of the quarantine pathogen <i>Xylella fastidiosa</i> and the situation in Europe and in our country Magdalena Cara, Orges Cara, Jordan Merkuri
15.30 – 15.40	Differences on chemical composition between <i>Mentha longifolia</i> and <i>Mentha spicata</i> populations Aurel Nuro, Jonida Salihila, Elda Marku, Bledar Myrtaj, Vilma Papajani
15.40 – 15.50	The genetic resources or germplasm of the wild apple, <i>Malus sylvestris</i> , in the settlements around of the Ujëmir mountain Gafur Ajruli, Hazir Pollozhani, Alirami Saliji, Emri Murati, Dashmir Mamuti

E-POSTER PRESENTATIONS

15.50 – 15.54	Impact of exogenous proline on vegetative growth of jojoba grown <i>in vitro</i> under salt and drought stresses Shawky Bekheet, Valbona Sota, Abdel-Salam Reda
15.54 – 15.58	<i>Phaseolus vulgaris</i> treated with physical mutagens and assessment of chlorophyll mutations and symbiotic bacteria Arjana Ylli, Selvina Çollaku, Emanuela Hajderaj
15.58 – 16.02	Effects of plant growth regulators on micropropagation of Gisela 6 (<i>Prunus cerasus</i> × <i>P. canescens</i>) cherry rootstock Elektra Papakosta, Valbona Sota
16.02 – 16.06	Economic overview of corn production in Albania Ndoc Vata, Edmond Demollari
16.06 – 16.10	Photosynthetic chlorophyll pigments in <i>Phaseolus vulgaris</i> treated with mutagens Malvina Karçini (Kodhelaj), Arjana Ylli, Nurie Pelivani
16.10 – 16.14	Effect of basal media on <i>in vitro</i> organogenesis of some native walnut cultivars in Albania Matilda Myrselaj (Delija), Ilirjana Bitri, Valbona Sota, Efigjeni Kongjika
16.14 – 16.18	Histological and cytological analysis of <i>Ocimum basilicum</i> L. var. <i>minimum</i> leaves at <i>in vitro</i> cultivated plantlets Jonida Balla, Zhaneta Zekaj
16.18 – 16.22	Heavy metals in <i>Primula veris</i> L., Primulaceae in different Kosovo regions Laura Binxhija (Qeska), Arjana Ylli
16.22 – 16.26	Assessment of the remediation potential of <i>Alyssum murale</i> in serpentine materials Eridana Cuni, Seit Shallari, Aida Bani

16.26 The closing of the first day of BGIC 2021

BGIC, 2021 – Detailed program

SECOND DAY - MAY 21, 2021 at the ACADEMY OF SCIENCES OF ALBANIA

POPULATION GENETICS

ORAL PRESENTATIONS 'ALEKS BUDA' HALL	
Moderator: Acad. Ilia Mikerezi	
09.00 – 09.10	Genetic factors associated with physical activity and health benefits Dhurata Bozo, Suela Xhufi
09.10 – 09.20	Genetic contribution to Anorexia Nervosa Maria Rachele Ceccarini, Elena Manara, Paolo Maltese, Matteo Bertelli, Laura Dalla Ragione, Tommaso Beccari
09.20 – 09.30	Trends in genetic structure and other isonymy parameters in Librazhd human population Ilia Mikerezi, Guido Kristo
09.30 – 09.40	The role of genetic tests in diagnosis of rare skin diseases with skin involvements Monika Fida, Ermira Vasili, Anila Babameto Laku
09.40 – 09.50	An integrative taxonomic study of mollusks from Belshi karstic lakes using molecular genetic analysis Xhoia Mujali, Elisabeth Haring, Helmut Sattmann, Michael Duda, Sajmir Beqiraj
09.50 – 10.00	Insights into gene diversity of Rhesus blood group in patients with hemoglobinopathies Merita Xhetani, Irena Qendro, Mirela Lika, Manika Kreka
10.00 – 10.10	Genetic characterization of some olive accessions from Albania Cinzia Montemurro, Pandeli Pasko
E-POSTER PRESENTATIONS	
10.10 – 10.14	Statistical and machine learning methods for genomic data: an overview” Eliana Ibrahimi, Ina Marku, Paola Xhelili, Erinda Rruçi, Dorina Roko
10.14 – 10.18	Pomological diversity of local plum cultivars Frida Çarka, Raimonda Sevo
10.18 – 10.40	Coffee Break

FOOD BIOTECHNOLOGY

ORAL PRESENTATIONS 'ALEKS BUDA' HALL	
Moderator: Acad. Ilirjan Malollari	
10.40 – 10.50	Marinade technology in combination with natural antimicrobials to enhance meat quality and safety Layal Karam, Ioannis Savvaidis
10.50 – 11.00	Use of olive mill polyphenols in broiler nutrition Konstantinos Petotos

11.00 – 11.10	Comparison of the use of different chemicals and UV radiation in the shell egg to reduce the levels of microorganisms Nora Rrahimi Hasani, Gentjan Hasani
11.10 – 11.20	Technology transfer offices (TTOS), successive models for research and innovation in Albanian universities Luziana Hoxha, Renata Kongoli
11.20 – 11.30	Nutritional studying of primary metabolites and microelements to hazelnut Mimoza Bala, Bujar Seiti ,Dritan Topi, Jonilda Llupa
E-POSTER PRESENTATIONS	
11.30 – 11.34	Presence of somatic cells and heterotrophic bacteria in milk, indicator for assessing animal health and milk quality Klementina Puto, Ermelinda Nexhipi, Linda Luarasi, Anida Bashuri
11.34 – 11.38	The evaluation of the presence of lactic acid bacteria in milk byproducts, yoghurt, sour milk, butter milk Linda Luarasi, Ermelinda Nexhipi, Klementina Puto, Avdyke Shahini
11.38 – 11.42	Albanian domestic legislation on GM fish products and stabilization of the methodology of detection Misarela Kallaji, Ariola Bacu
11.42 – 11.46	Heating treatment and oxidative stability of antioxidants compounds in olive oil samples in Albania Jonida Canaj, Amilda Ballata, Aferdita Dinaku
11.46 – 11.50	Assessment of physico-chemical properties of wine produced traditionally in the southeast Albania Amilda Ballata, Jonida Canaj
11.50 – 11.54	Occurrence of Anisakis sp. larvae in <i>Dicentrarchus labrax</i> and <i>Sparus aurata</i> in farm fishes in Vlora region Egon Andoni, Ani Vodica, Bizena Bijo, Fatmira Shehu
11.54 – 11.58	Impact of entrapped and encapsulated immobilized commercial yeast strains on fermentation performance Vilma Gurazi, Luljeta Pinguli
11.58 – 12.30	Coffee Break

ANIMAL BIOTECHNOLOGY & ENVIRONMENTAL BIOTECHNOLOGY

ORAL PRESENTATIONS 'ALEKS BUDA' HALL	
Moderator: Prof. Anila Hoda	
12.30 – 12.40	Angiogenesis in the bovine ovary – some molecular mechanisms during periovulation Bajram Berisha
12.40 – 12.50	Genetic variants of MHC genes in Albanian local goat breeds Anila Hoda, Lorena Hysi
12.50 – 13.00	Bovine Brucellosis serological survey in small dairy cattle in Lushnja district, Albania Xhelil Koleci, Anita Koni, Luigj Turmalaj and Kledis Çela

13.00 – 13.10	A fifteen-year field study of nickel-agromining using <i>Odontarrhena chalcidica</i> on an ultramafic soil of Albania Aida Bani, Seit Shallari, Eugen Skura, Liri Miho, Guillaume Echevarria
13.10 – 13.20	Public health risk assessment against microbial resistance and antibiotic residues in the environment of Elbasan district Erinda Lika, Elenica Dimeo, Neritla Dalipaj, Taulant Goga
13.20 – 13.30	Halophilic bacteria-based biotechnologies – potentiality to develop them in Albania Ariola Bacu, Ilirjan Malollari, Ina Zaho
E-POSTER PRESENTATIONS	
13.30 – 13.34	Evaluation of genetic diversity within and between native cattle breeds populations breeding in Albania and Kosovo Lumturi Papa, Kristaq Kume, Naim Rexhaj
13.34 – 13.38	Control of <i>Mycobacterium avium</i> subsp. <i>Paratuberculosis</i> infection in a dairy farm in Albania Liljana Lufo, Kastriot Korro, Gjena Dura, Gani Moka
13.38 – 13.42	The environmental impact of livestock development and animal farms – the Albanian case Magdalena Bregasi, Etleva Delia
13.42 – 13.46	Characterization of the raw materials and utilities for the laboratory-scale biodiesel production Armela Mazrreku, Ilirjan Malollari, Belinda Hoxha, Marilda Osmani
13.46 – 13.50	Phytomining and agromining candidate plants of hyperaccumulative flora of Kosovo Muharrem Salihaj, Aida Bani
13.50 – 13.54	Phytoextraction of heavy metals from industrial contaminated soil at Elbasan Marilda Osmani, Aida Bani, Belinda Hoxha, Armela Mazrreku
13.54 – 13.58	Trend benefit of energy from olive wastes treatment in Albania Edmond Demoilari, Ndoc Vata, Ervis Mollosmani
13.58 – 14.02	The effect of sodium ascorbate and alkaline water on superoxide dismutase levels during acute hyperthermic stress at white laboratory rats Valdrina Ajeti, Icko Gjorgoski, Slagjana Brsakovska, Vasilka Rendjova

14.02 - 14.30 CONCLUDING REMARKS AND CONFERENCE CLOSING