

# PROGRAMME



2019 | October  
13–17

VRNJAČKA BANJA • SERBIA



## SUNDAY October 13

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from 14:00 Registration (hotel Fontana)

**17:45-18:00** Opening ceremony

### OPENING LECTURES

**Moderators: Jelena Knežević-Vukčević, Milena Stevanović**

18:00-18:30 **Natasa Przulj** "UNENTANGLING BIOLOGICAL COMPLEXITY: FROM OMICS DATA TO NEW BIOMEDICAL KNOWLEDGE"

18:30-19:00 **Christine Patch** "GENETIC COUNSELLING IN THE ERA OF GENOMICS MEDICINE"

**19:00-20:00** Welcome cocktail

## MONDAY October 14

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08:30-09:00 Registration (hotel Fontana)

### PLENARY LECTURES

**Moderators: Ander Matheu, Ivana Kavečan**

09:00-09:30 **Ander Matheu** "UNDERSTANDING THE ROLE OF SOX STEM CELL GENES IN CANCER AND AGEING"

09:30-10:00 **Milena Stevanović** "SOX GENES: FOR BETTER OR FOR WORSE..."

### session MEDICAL GENETICS

**Moderators: Ander Matheu, Ivana Kavečan**

#### *Invited lectures*

10:00-10:20 **Marija Stankovic** "INTERACTIONS OF GENETIC AND ENVIRONMENTAL FACTORS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE"

10:20-10:40 **Maja Zivkovic** "NEW INSIGHTS INTO REGULATORY GENETIC MAPS IN COMPLEX DISEASES: FROM 'GENE DESERTS' TO SUPER-ENHANCERS"

10:40-11:00 **Ivana Kavecan** "CLINICAL AND GENETIC ASPECTS OF OVERGROWTH SPECTRUM SYNDROMES"

11:00-11:20 **Marina Đurišić** "THE IMPORTANCE OF CORRECTLY REPORTING DIAGNOSTIC GENETIC TEST RESULTS"

**11:20-11:40** Coffee break

## Oral presentations

**Moderators: Ander Matheu, Ivana Kavečan**

- 11:40-11:50 **Branka Zukic** "PHARMACOGENOMIC PROFILING OF SERBIAN PATIENTS WITH PEDIATRIC ACUTE LYMPHOBLASTIC LEUKEMIA"
- 11:50-12:00 **Ivan Skadrić** "CYP450 FUNCTIONAL VARIANTS PANEL FOR POSTMORTEM GENETIC SCREENING IN SERBIAN POPULATION"
- 12:00-12:10 **Tatjana Damjanović** "THE IMPLEMENTATION OF ARRAY-CGH TECHNOLOGY IN CLINICAL POSTNATAL TESTING IN SERBIAN POPULATION"
- 12:10-12:20 **Biljana Jekic** "ASSOCIATION OF THE MMP-2 rs2285053 CC AND TIMP-2 rs2277698 CT GENOTYPES COMBINATION WITH BONE EROSION IN PATIENTS WITH RHEUMATOID ARTHRITIS"
- 12:20-12:30 **Kristel Klaassen** "HYPERPHENYLALANINEMIA: FROM COMPLEX GENETICS TO COMPLEX PHENOTYPES"
- 12:30-12:40 **Nadja Nikolic** "GLUTATHIONE-S-TRANSFERASES POLYMORPHISMS COUPLED WITH INCREASED EXPRESSION OF PROINFLAMMATORY CYTOKINES PLAY A ROLE IN THE DEVELOPMENT OF PREECLAMPSIA IN SERBIAN WOMEN"
- 12:40-12:50 **Milan Obrenovic** "PREIMPLANTATION GENETIC SCREENING – PREVENTION OF ANEUPLOIDIES BEFORE IMPLANTATION"
- 12:50-13:00 **Jovan Pešović** "VARIANT REPEATS WITHIN DMPK EXPANSIONS AS GENETIC MODIFIER OF DM1 PHENOTYPE"
- 13:00-13:10 **Biljana Todorčić-Živanović** "TYROSINE KINASE DOMAIN MUTATIONS OF bcr-abl GENE IN THE PATIENTS WITH CHRONIC MYELOID LEUKEMIA RESISTANT TO FIRST LINE THERAPY"
- 13:15-13:30 Presentation of sponsor - N Analysis**  
**"High resolution mass spectrometry drives cancer biomarker research"**  
**Milan Ćosić, ANALYSIS DOO**
- 13:30-14:30 Lunch & Poster viewing**

## PLENARY LECTURES

**Moderators: Christine Patch, Ivana Novaković**

- 14:30-15:00 **Olivera Miljanovic** "THE EFFECTIVENESS OF COMPREHENSIVE GENOMIC TESTING IN DIAGNOSTICS OF RARE GENOMIC DISEASES"
- 15:00-15:30 **Evangelia Eirini Tsermpini** "PRE -EMPTIVE PHARMACOGENOMICS IN PSYCHIATRY: WHERE DO WE STAND?"

## session HUMAN OMICS VARIATION

**Moderators: Christine Patch, Ivana Novaković**

### Invited lectures

- 15:30-15:50 **Sonja Pavlovic** "NEXT-GENERATION GENOMICS OF RARE DISEASES: ON THE ROAD TO NEW DIAGNOSTICS AND INNOVATIVE THERAPIES"
- 15:50-16:10 **Ana Krivokuca** "COMPLEXITIES OF VARIANT ANNOTATION USING NGS FOR DETECTING HEREDITARY BREAST AND OVARIAN CANCER PREDISPOSITION"
- 16:10-16:30 **Ivana Novakovic** "NEXT GENERATION SEQUENCING IN NEURODEGENERATIVE DISORDERS: OUR EXPERIENCE"
- 16:30-16:50 **Goran Čuturilo** "GENOMICS-BASED CLINICAL DISCOVERIES: A 5-YEAR EXPERIENCE IN A TERTIARY PEDIATRIC REFERRAL CENTRE"
- 16:50-17:10 Coffee break**

### Oral presentations

**Moderators: Christine Patch, Ivana Novaković**

- 17:10-17:20 **Rijad Konjhodžić** "MOLECULAR PROFILING OF COLORECTAL CANCER USING NEXT GENERATION SEQUENCING"
- 17:20-17:30 **Vladimir Gasic** "IMPORTANCE OF NEXT GENERATION SEQUENCING FOR DETECTION OF NOVEL PHARMACOGENOMIC MARKERS IN PEDIATRIC ACUTE LYMPHOBLASTIC LEUKEMIA"
- 17:30-17:40 **Marina Andjelkovic** "GENOMIC PROFILING AS A TOOL FOR DIFFERENTIAL DIAGNOSIS OF PATIENTS WITH PEDIATRIC LUNG DISEASES AND DISCOVERY OF NOVEL DISEASE-CAUSING GENES AND GENETIC VARIANTS"
- 17:40-17:50 **Anita Skakic** "GENOMIC PROFILING OF GLYCOGEN STORAGE DISEASES: FROM NGS METHOD TO THE CRISPR/CAS9 TECHNOLOGY"

### PLENARY LECTURE

**Moderator: Branka Vasiljević**

- 18:00-18:30 **Donatella de Pascale** "MARINE ENVIRONMENT AS A SOURCE OF NEW MULTIACTIVITY PIGMENTS AND BIOACTIVE MOLECULES"

18:30-19:30 **POSTER SESSION 1** (sessions: Human omics variation and Medical genetics)

- 19:30-20:30 **Workshop 1: Personalized Medicine: Promise and Reality.**  
Moderator: **Sonja Pavlović**; Panelists: **Natasa Przulj, Evangelia Eirini Tsermpini, Ivana Kavečan**  
Introduction: Personalized medicine: Old Concept, New Achievements  
Panel discussion topics: Personalized medicine - the best path forward?  
Achievements and bottlenecks  
Bioethical issues  
Personalized medicine – where do we and our teams stand?

## TUESDAY October 15

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08:30-09:00 Registration (hotel Fontana)

### PLENARY LECTURES

**Moderators: Jelena Blagojević, Vesna Milankov**

09:00-09:30 **Tomasz Grzybowski** "GENETIC PREDICTION OF BIOGEOGRAPHIC ANCESTRY WITHIN EUROPE"

09:30-10:00 **Vladimir Trifonov** "ORIGIN AND EVOLUTION OF VERTEBRATE SEX CHROMOSOMES"

### session GENETIC DIVERSITY, PHYLOGENY AND CONSERVATION

**Moderators: Jelena Blagojević, Vesna Milankov**

#### Invited lectures

10:00-10:20 **Jasmina Ludoški** "THE UTILITY OF MOLECULAR MARKERS IN POPULATION AND CONSERVATION GENETICS IN DIPTERA"

10:20-10:40 **Vladimir M. Jovanović** "EVOLUTIONARY HISTORY AND PHYLOGEOGRAPHY OF GENUS *APODEMUS* (MURIDAE, RODENTIA)"

10:40-11:00 **Nemanja Gojković** "THE FIRST INTEGRATIVE ASSESSMENT OF THE INVASIVE POPULATION OF *Aedes albopictus* (DIPTERA: CULICIDAE) FROM THE CENTRAL BALKANS"

#### Oral presentations

11:00-11:10 **Lea Kurtek** "GENETIC VARIABILITY OF *CHEILOSIA URBANA* (DIPTERA, SYRPHIDAE)"

11:10-11:20 **Jelena M. Aleksić** "THE EXTENT OF RECENT MATERIAL TRANSFERS AND PAST DEMOGRAPHIC HISTORY IN NORWAY SPRUCE INFERRED FROM GENOMIC DATA"

**11:20-11:40 Coffee break**

11:40-11:50 **Miloš Stevanović** "MULTILOCUS SEQUENCE CHARACTERIZATION OF *GNOMONIOPSIS IDAEICOLA*"

11:50-12:00 **Milan Mataruga** "DYNAMIC CONSERVATION OF *PICEA OMORIKA* POPULATIONS IN THE REPUBLIC OF SRPSKA, BOSNIA AND HERZEGOVINA"

12:00-12:10 **Ivana Budinski** "WAS THE BALKAN PENINSULA A GLACIAL REFUGIUM FOR THE MEDITERRANEAN HORSESHOE BAT, *RHINOLOPHUS EURYALE* (BLASIUS, 1853)?"

## PLENARY LECTURE

**Moderators: Milorad Kojić, Michael Lisby**

12:10-12:40 **Michael Lisby** "DISCOVERY OF THE HUMAN ZGRF1 DNA REPAIR HELICASE"

## session MISCELLANEOUS TOPICS

**Moderators: Milorad Kojić, Michael Lisby**

### Invited lectures

12:40-13:00 **Giuliano Degrassi** "ENZYMATIC PRE-TREATMENT OF BIOMASS FOR IMPROVEMENT OF BIOGAS PRODUCTION"

13:00-13:20 **Gordana Timotijević** "CRISPR/Cas9 MUTAGENESIS AS A TOOL TO GAIN INSIGHT INTO THE ROLES OF HIGHLY HOMOLOGOUS PLANT DSS1 GENES"

**13:30-14:30 Lunch & Poster viewing**

## PLENARY LECTURES

**Moderators: Domagoj Šimić, Goran Bekavac**

14:30-15:00 **Johann Vollmann** "EFFECTS OF THE Dt2 GENE FOR STEM TERMINATION ON AGRONOMIC AND SEED COMPOSITION TRAITS OF SOYBEAN"

15:00-15:30 **Vlatko Galic** "GWAS FOR BIOMASS RESPONSES TO WATER WITHHOLDING IN GBS GENOTYPED, FREELY AVAILABLE ACCESSIONS OF MAIZE"

## session BREEDING FOR CHANGING ENVIRONMENTS

**Moderators: Goran Bekavac, Nenad Delić**

### Invited lectures

15:30-15:50 **Dragan Perović** "USE OF BARLEY AND WHEAT REFERENCE SEQUENCES: DOWN-STREAM APPLICATIONS IN BREEDING, GENE ISOLATION, GWAS AND EVOLUTION"

15:50-16:20 **Vasilije Isajev** "UTILIZATION AND TRANSFER OF FOREST GENETIC RESOURCES BY INTRODUCTION OF ALIEN SPECIES"

16:20-16:50 **Jelena Srdić** "BREEDING OF MAIZE HYBRIDS WITH SPECIFIC TRAITS FOR ENHANCED AGRONOMIC AND NUTRITIONAL PROPERTIES"

16:50-17:10 **Vuk Đorđević** "GENOMIC PREDICTION – NEW TOOL IN SOYBEAN BREEDING"

**17:10-17:30 Coffee break**

### Oral presentations

17:30-17:40 **Aleksandra Radanović** "MOLECULAR MARKERS FOR DETECTION OF Rf1 GENE DEVELOPED FROM BAC-END SEQUENCES IN SUNFLOWER"

17:40-17:50 **Desimir Knežević** "EFFECT OF GENOTYPE AND ENVIRONMENT ON VARIABILITY OF PRODUCTIVE TILLERING IN BREAD WHEAT (*TRITICUM AESTIVUM* L.)"

17:50-18:00 **Dejan Sokolović** "DIALLEL ANALYSIS FOR MOST IMPORTANT TRAITS OF RED FESCUE (*FESTUCA RUBRA L.*)"

18:00-19:30 **POSTER SESSION 2**  
(sessions: Breeding for changing environments and Miscellaneous topics)

18:00-18:15 **Presentation of sponsor - ELTA 90**

18:15-19:45 **Workshop 2:** The truth is in wine and DNA - applications of molecular methods in viticulture

Moderators: **Jelena M. Aleksić, Gabriele Di Gaspero**

**Gabriele Di Gaspero** "DISEASE RESISTANCE LOCI IN GRAPEVINE: HAPLOTYPE DIVERSITY AND IMPLICATIONS FOR AN EFFICIENT MARKER ASSISTED SELECTION"

**Aleksandar Tabakovic** "REGISTRATION OF WINE VARIETIES"

**Jelena M. Aleksić** "DNA FINGERPRINTING OF SERBIAN GRAPEVINE VARIETIES BY MEANS OF NUCLEAR MICROSATELLITES"

**Darko Jaksic** "AUTOCHTHONOUS AND REGIONAL VINE VARIETIES – GENETIC POTENTIAL AND CLONAL SELECTION"

**Dragoslav Ivanišević** "CLONAL SELECTION OF *Vitis vinifera*: THE METHOD FOR CONSERVATION OF AUTOCHTHONOUS GRAPEVINE VARIETIES"

**Dragoslav Ivanišević** "ACHIEVEMENTS IN THE CREATION OF NEW GRAPEVINE VARIETIES IN SERBIA BY HYBRIDIZATION"

19:45-20:30 **Serbian Genetic Society Meeting**

20:30 **Wine tasting**

## WEDNESDAY October 16

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08:30-09:00 Registration (hotel Fontana)

### PLENARY LECTURE

Moderators: **Branka Vuković-Gačić, Bojana Žegura**

09:00-09:30 **Bojana Žegura** "HEPATIC 3D *IN VITRO* CELL MODELS FOR GENOTOXICITY ASSESSMENT"

session **GENETIC TOXICOLOGY: FROM CELL TO ECOSYSTEM**

Moderators: **Branka Vuković-Gačić, Bojana Žegura**

### Invited lectures

- 09:30-09:50 **Dragana Mitić-Ćulafić** "GENOTOXICITY AND BIOCOMPATIBILITY OF NEW NANOSTRUCTURAL DENTAL BIOMATERIALS BASED ON ACTIVE CALCIUM SILICATE SYSTEM AND HYDROXYAPATITE"
- 09:50-10:10 **Branka Vuković-Gačić** "CURRENT APPROACHES AND BIOASSAYS IN THE ASSESSMENT OF ENVIRONMENTAL POLLUTION"
- 10:10-10:30 **Ninoslav Djelić** "GENOTOXIC EFFECTS OF NONSTEROIDAL HORMONES"

### Oral presentations

- 10:30-10:40 **Biljana Nikolić** "BIOCOMPATIBILITY OF RESIN-BASED COMPOSITES - COMPARATIVE ANALYSIS OF CYTOTOXICITY AND GENOTOXICITY OF CONSTITUENTS AND THEIR COMBINATIONS"
- 10:40-10:50 **Stefana Cvetković** "PROTECTIVE EFFECT OF *GENTIANA LUTEA* EXTRACTS AGAINST UV-INDUCED GENOTOXICITY"
- 10:50-11:00 **Marina Jovanović** "THE MODULATION OF Keap1-Nrf2 SIGNALING PATHWAY: *IN VITRO* STUDIES OF COMMERCIAL CYTOSTATIC AND POLYGONOIDEAE WEEDS WITH CHEMOTHERAPEUTIC POTENTIALS"

11:00-11:20 **Coffee break**

### PLENARY LECTURES

**Moderators: Marina Stamenković-Radak, Vladimir Trifonov**

- 11:20-11:50 **Thomas Flatt** "THE GENETIC BASIS OF CLINAL ADAPTATION IN *DROSOPHILA*"
- 11:50-12:20 **Giovanni Giuseppe Vendramin** "MOLECULAR SIGNATURES OF CLIMATE ADAPTATION AND RANGE EXPANSIONS IN MEDITERRANEAN CONIFERS"

### session ADAPTATION AND ECOLOGICAL GENETICS

**Moderators: Marina Stamenković-Radak, Vladimir Trifonov**

### Oral presentations

- 12:20-12:30 **Andrea Piotti** "DO DENDROPHENOTYPIC TRAITS INFLUENCE INDIVIDUAL REPRODUCTIVE SUCCESS? AN EMPIRICAL ASSESSMENT IN NORWAY SPRUCE NATURAL POPULATIONS"
- 12:30-12:40 **Mirjana Beribaka** "CHANGE IN MICROBIOTA DIVERSITY IN TWO *DROSOPHILA* SPECIES UNDER EXPERIMENTAL CONDITIONS ON LEAD"
- 12:40-12:50 **Pavle Erić** "DOES SEX-SPECIFIC SELECTION ON SYMPATRIC MITO-NUCLEAR VARIATION ACT ON ADULT *DROSOPHILA SUBOBSCURA* IN REGARD TO DESICCATION RESISTANCE?"



12:50-14:20	<b>POSTER SESSION 3</b> (sessions: Genetic toxicology: from cells to ecosystem; Adaptation and ecological genetics; Genetic diversity, phylogeny and conservation; Microbial genetics; Bioinformatics and big data analysis)
14:20-15:00	<b>Lunch &amp; Poster viewing</b>
15:00-20:00	<b>Excursion</b>
21:00	<b>Galla Dinner</b>

## THURSDAY October 17

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### PLENARY LECTURES

**Moderators: Djordje Fira, Slaviša Stanković**

- 09:00-09:30 **Vittorio Venturi** "THE PATHOBIOMES OF TWO BACTERIAL DISEASES OF RICE; IDENTIFYING MICROBIAL COOPERATORS AND ANTAGONISTS OF THE PATHOGEN"
- 09:30-10:00 **José Pérez-Martín** "PHEROMONE INDUCED CELL CYCLE ARREST IN *USTILAGO MAYDIS*"

### session 7 - MICROBIAL GENETICS

**Moderators: Vittorio Venturi, José Pérez-Martín**

#### Invited lectures

- 10:00-10:20 **Branko Jovčić** "MOBILE INTEGRONS: SENSING THE CELL PHYSIOLOGY"
- 10:20-10:40 **Nada Stankovic** "SEQUENCING OF *STREPTOMYCES SP.* NP10 GENOME – A KEY TO THE TREASURE CHEST"
- 10:40-11:00 **Mira Milisavljevic** "SURVIVING OXIDATIVE STRESS - NEW CELLULAR FUNCTIONS INVOLVED IN RECYCLING AND GENOME PROTECTION IN *USTILAGO MAYDIS*"
- 11:00-11:20 **Tanja Berić** "SPECIFICITY OF THE PATHOVAR OR UBIQUITY OF THE SPECIES: THE CASE OF *PSEUDOMONAS SYRINGAE PV. APTATA*"
- 11:20-11:40 **Goran Vukotić** "BACTERIOPHAGES AND PHAGE-ENCODED DEPOLYMERASES"

#### Oral presentations

- 11:40-11:50 **Mina Obradovic** "BACILLUS CEREUS NM1 ISOLATED FROM SOIL PRODUCES TWO-COMPONENT LANTIBIOTIC THUSIN, ACTIVE AGAINST MULTIRESTANT PATHOGENS"
- 11:50-12:10 **Coffee break**

## PLENARY LECTURE

**Moderators: Ivana Morić, Leonardo De Oliveira Martins**

12:10-12:40 **Leonardo De Oliveira Martins** "FROM PHYLOGENETICS TO PHYLOGENOMICS, BETWEEN BACTERIAL STRAINS AND THE TREE OF LIFE "

## session BIOINFORMATICS AND BIG DATA ANALYSIS

**Moderators: Ivana Morić, Leonardo De Oliveira Martins**

12:40-13:00 **Ivan Jovanović** "EVOLUTION FROM "T" TO  $\pi$  SHAPED PROFILE OF A RESEARCHER IN THE ERA OF miRNOMICS"

13:00-13:20 **Bojana Banović Đeri** "LEAF TOTAL TRANSCRIPTOME ANALYSIS ENRICHES INSIGHT INTO MAIZE ABIOTIC STRESS SIGNALING NETWORK"

## CLOSING LECTURE

**Moderator: Branka Vasiljević**

13:20-13:50 **Ana Cvejić** "EXPLORING THE MECHANISMS OF HAEMATOPOIETIC LINEAGE PROGRESSION AT THE SINGLE-CELL LEVEL "

**14:00 Closing ceremony**