

# DAY 1 Thursday 9th of October 2025

8:00-13:00 **WS.01**  **Workshop: Interpretation of NGS data** **A. Maver**

13:00 **Lunch break**

|             |                          |                                                                                                           |                          |                       |
|-------------|--------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|
| 14:00-15:40 | <b>P1</b>                | <b>Welcome and plenary lectures (<i>B. Peterlin, D. Plaseska-Karanfilaska</i>)</b>                        |                          |                       |
|             | <b>WA</b><br>10 min      | Welcome address                                                                                           | <b>A. Maver</b>          | <b>Slovenia</b>       |
|             | <b>W.01.P</b><br>40 min  | Using genomic medicine to make drug prescription safer and more effective                                 | <b>W. Newman</b>         | <b>United Kingdom</b> |
| 15:40-16:50 | <b>W.02.P</b><br>40 min  | Gamechanger in rare disease research and diagnosis: the role of 3D facial gestalt scanning technology     | <b>M. Macek</b>          | <b>Czech Republic</b> |
|             | <b>S1</b>                | <b>Session 1: Advances in rare disease diagnostics (<i>W. Newman, K. Witzl</i>)</b>                       |                          |                       |
|             | <b>S1.01.I</b><br>20 min | Long-read sequencing for rare disease research and diagnostics                                            | <b>B. Van der Sanden</b> | <b>Netherlands</b>    |
| 15:40-16:50 | <b>S1.02.I</b><br>20 min | AI-Assisted Genome Diagnostics with Long Reads                                                            | <b>S. Ossowski</b>       | <b>Germany</b>        |
|             | <b>S1.03.I</b><br>10 min | Structural variants in rare disease                                                                       | <b>A. Kovanda</b>        | <b>Slovenia</b>       |
|             | <b>S1.04.O</b><br>10 min | Rapid Intraoperative Classification of Central Nervous System Tumours Using Real-Time Nanopore Sequencing | <b>S. Petrin</b>         | <b>Slovenia</b>       |
|             | <b>S1.05.O</b><br>10 min | The contribution of reanalysis of whole exome sequencing data to diagnosis rate                           | <b>H. Bas</b>            | <b>Turkey</b>         |

16:50 **Coffee break**

|             |                          |                                                                                                                                             |                                 |                        |
|-------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| 17:20-18:50 | <b>S2</b>                | <b>Session 2: What is new in Mendelian disorders (<i>M. Macek, L. Lovrečić</i>)</b>                                                         |                                 |                        |
|             | <b>S2.01.P</b><br>20 min | Beyond Chromosomes: The Monogenic Causes of Early Pregnancy Loss                                                                            | <b>D. Plaseska-Karanfilaska</b> | <b>North Macedonia</b> |
|             | <b>S2.02.I</b><br>20 min | Chromatin remodeling disorders - challenging path to diagnosis and management                                                               | <b>L. Odak</b>                  | <b>Croatia</b>         |
| 17:20-18:50 | <b>S2.03.O</b><br>10 min | Reporting Beyond the Primary Diagnosis: Actionable Additional Findings in WES/WGS                                                           | <b>B. Golob</b>                 | <b>Slovenia</b>        |
|             | <b>S2.04.O</b><br>10 min | 3D Facial Gestalt Analysis of Individuals with Mutated PKD1 Genes in Polycystic Kidney Disease Patients                                     | <b>M. Mihulová</b>              | <b>Czech Republic</b>  |
|             | <b>S2.05.O</b><br>10 min | Uncovering Dual Diagnoses through Trio-Based Whole Exome Sequencing (WES): Incidence and Clinical Implications                              | <b>F. Perino</b>                | <b>Italy</b>           |
| 17:20-18:50 | <b>S2.06.O</b><br>10 min | Resolving diagnostic challenges in skeletal dysplasia – a clinical overview of a ten years' experience of a single genetic center in Serbia | <b>M. Mijović</b>               | <b>Serbia</b>          |
|             | <b>S2.07.O</b><br>10 min | Genetic basis of female protective effect in neurodevelopmental disorders and beyond                                                        | <b>D. Perović</b>               | <b>Serbia</b>          |

18:50 **S3-R Roundtable: Genetic Medicine in Balkan countries: Challenges and solutions**

|             |                          |                                                                                                              |                                 |                        |
|-------------|--------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| 18:50-20:00 | <b>S3.01.I</b><br>10 min | Balkan Journal of Medical Genetics (BJMG): Gateway to publishing quality research                            | <b>D. Plaseska-Karanfilaska</b> | <b>North Macedonia</b> |
|             | <b>S3.02.I</b><br>10 min | The importance of European Reference Network in rare disease diagnosis and management: Slovenia's experience | <b>I. Babič Božović</b>         | <b>Slovenia</b>        |
|             | <b>S3.03.I</b><br>10 min | Competences of health professionals in genomic counselling                                                   | <b>N. Kregar Velikonja</b>      | <b>Slovenia</b>        |
|             | <b>S3.04.I</b><br>10 min | Establishment of the Slovenian genome database as a resource of population variability in the region         | <b>A. Maver</b>                 | <b>Slovenia</b>        |
|             | <b>S3.05.P</b>           | Maturity level of National Genomic Systems 10 min / Discussion 20 min                                        | <b>B. Peterlin</b>              | <b>Slovenia</b>        |

20:00 **Welcome drink and get together**

# DAY 2 - Morning Friday, 10th of October 2025

|                                                                                                 |                   |                                                                                                                                                                        |                          |                                                         |
|-------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------|
| 08:00-09:30                                                                                     | S4                | Genetics of neurologic and neurodevelopmental disorders<br>(O. Miljanović, M. Đurišić)                                                                                 |                          |                                                         |
|                                                                                                 | S4.01.P<br>20 min | The contribution of genomic diagnostics to the elucidation of neurodevelopmental disorders                                                                             | O. Miljanović            | Montenegro                                              |
|                                                                                                 | S4.02.O<br>10 min | The FMR1 Premutation in Patients with Late-Onset Movement Disorders and Family Members of Fragile X Syndrome Patients: A Diagnostic Opportunity                        | M. Pesić                 | Serbia                                                  |
|                                                                                                 | S4.03.O<br>10 min | Routine molecular genetic testing of GAA-FGF14-Related Ataxia and RFC1 CANVAS Spectrum Disorder                                                                        | H. Jaklič                | Slovenia                                                |
|                                                                                                 | S4.04.O<br>10 min | Monogenic Causes of Early-Onset Dementia: Evidence from Whole Exome Sequencing                                                                                         | E. Shukarova Stefanovska | North Macedonia                                         |
|                                                                                                 | S4.05.O<br>10 min | Expansion and contraction of CGG repeats in FMR1 gene within one family                                                                                                | B. Pejović               | Serbia                                                  |
|                                                                                                 | S4.06.O<br>10 min | ERBB4 exonic deletions in patients with intellectual disability and speech developmental delay                                                                         | M. Rasić                 | Serbia                                                  |
| 09:10                                                                                           | S4.06.S           | How to Combine Genomics, Deep Phenotyping, and AI to Diagnose Patients with Rare Diseases                                                                              |                          | Genomize                                                |
| Quality assurance in Balkan countries (L. Lovrečić) (concurrent with P1 and P2 poster sessions) |                   |                                                                                                                                                                        |                          |                                                         |
| 09:30-10:30                                                                                     | S13<br>ARNOLD 1   | How to obtain regulatory compliance for in-house in vitro devices (IH-IVD's)? (H. Podgornik, UMCL, Slovenia)                                                           |                          |                                                         |
|                                                                                                 |                   | The challenge of persistent poor performance in external quality control (W. Gutowska-Ding, EMQN, UK)                                                                  |                          |                                                         |
| 09:30-10:30                                                                                     | P1<br>ARNOLD 2    | Concurrent Poster viewing session – Cancer                                                                                                                             | 5 min per poster         | P001-P010, P067<br>(H. Butz, V. Šetrajčič Dragoš)       |
|                                                                                                 | P2<br>ROSA        | Concurrent Poster viewing session - Regional healthcare                                                                                                                | 5 min per poster         | P011-P016, P068, P070-P072<br>(A. Marjanovic, A. Maver) |
| 09:30                                                                                           | Coffee break      |                                                                                                                                                                        |                          |                                                         |
| 10:30-11:50                                                                                     | S5                | Advances in cancer diagnosis<br>(V. Stegel, D. Primorac)                                                                                                               |                          |                                                         |
|                                                                                                 | S5.01.P<br>20 min | A New Era of AI and Whole Genome Sequencing (WGS) for Cancer Diagnosis and Treatment Strategies                                                                        | D. Primorac              | Croatia                                                 |
|                                                                                                 | S5.02.O<br>10 min | Increased Identification of PARP Inhibitor-Eligible Patients in Epithelial Ovarian Cancer through HRD Testing at the Institute of Oncology Ljubljana                   | V. Stegel                | Slovenia                                                |
|                                                                                                 | S5.03.O<br>10 min | Chaperone-Mediated Autophagy in Glioblastoma: A Multi-Omics Perspective                                                                                                | Ö. Yildirim              | Turkey                                                  |
|                                                                                                 | S5.04.O<br>10 min | Better diagnosis of liver cancer with the use of Xenium spatial transcriptomics                                                                                        | U. Prosenc Zrmzljak      | Slovenia                                                |
|                                                                                                 | S5.05.O<br>10 min | Genes associated with higher mutational burden in tumors and improved response to checkpoint immunotherapy                                                             | G. Kungulovski           | North Macedonia                                         |
|                                                                                                 | S5.06.O<br>10 min | Clinical verification of plasma cell immunoselection for FISH analysis in multiple myeloma                                                                             | H. Podgornik             | Slovenia                                                |
|                                                                                                 | S5.07.O<br>10 min | Computational Identification of Potential Therapeutic Agents Targeting the MUC16 Gene in Glioblastoma                                                                  | R. Kalkan                | Northern Cyprus, Turkey                                 |
| 12:00                                                                                           | S5.08.O<br>10 min | Immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome in a large exome dataset: Identification of novel variants in DNMT3B, ZBTB24, and CDCA7 genes | F. Dereli Devrez         | Turkey                                                  |
|                                                                                                 | Lunch break       |                                                                                                                                                                        |                          |                                                         |

# DAY 2 Afternoon Friday 10th of October 2025

|                   |                                                                                   |                                                                                                                                            |                                      |                 |
|-------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------|
| 13:00-14:30       | S6                                                                                | Concurrent session - Room Arnold 1 - Prenatal and preventive genomics<br>(S. Hadjidekova, M. Xhetani)                                      |                                      |                 |
|                   | S6.01.P<br>20 min                                                                 | Recurrent Pregnancy Loss and Genetics: Exploring the Genetic Factors Behind Pregnancy Complications                                        | M. Xhetani                           | Albania         |
|                   | S6.02.P<br>20 min                                                                 | Enhancing Prenatal Diagnosis of Fetal Congenital Anomalies Through Next-Generation Sequencing                                              | F. Burada                            | Romania         |
|                   | S6.03.I                                                                           | Prenatal Genomic Testing - Current position and future directions 20 min                                                                   | L. Lovrečić                          | Slovenia        |
|                   | S6.04.I<br>20 min                                                                 | Foetal radiation risk. Role of geneticists in biodosimetry service and genetic counselling                                                 | J. Pajić                             | Serbia          |
|                   | S6.05.O<br>10 min                                                                 | Familial Cases Show Higher Prevalence of Rare Predicted Pathogenic Variants in 56 Novel Genes Associated with Spontaneous Preterm Birth    | T. Mladenić                          | Croatia         |
|                   | S6.06.O<br>10 min                                                                 | Preliminary serum metabolomics analysis highlighting tryptophan pathway alterations in spontaneous preterm birth                           | S. Dević Pavlić                      | Croatia         |
| 13:00-14:30       | S7                                                                                | Concurrent session - Room Arnold 2 - Oncogenetics - the current state and challenges in the region<br>(H. Podgornik, A. Patocs)            |                                      |                 |
|                   | S7.01.P<br>20 min                                                                 | Role of clinical and laboratory geneticists in precision cancer medicine 20 min                                                            | A. Patocs                            | Hungary         |
|                   | S7.02.I<br>10 min                                                                 | OncoOrigin: The Future of Precision Oncology through Integration of Machine Learning and Tumor Genomics for Identifying Primary Tumor Site | P. Brlek                             | Croatia         |
|                   | S7.03.I<br>20 min                                                                 | Challenging interpretation of germline variants in hereditary breast and ovarian cancer                                                    | H. Butz                              | Hungary         |
|                   | S7.04.O<br>10 min                                                                 | Spectrum of germline BRCA pathogenic variants in ovarian cancer patients from North Macedonia                                              | S. Kiprijanovska                     | North Macedonia |
|                   | S7.05.O<br>10 min                                                                 | Germline Screening for Hereditary Cancer Predisposition in the Bulgarian Population: Insights from 2024                                    | N. Valcheva                          | Bulgaria        |
|                   | S7.06.O<br>10 min                                                                 | Exploring attitudes towards nutritional advice amongst individuals affected by Lynch Syndrome in the UK                                    | I. Rennocks                          | United Kingdom  |
| S7.07.O<br>10 min | Genetic Factors and Acute Kidney Injury: Influence on Cancer Treatment Strategies | M. Imeraj                                                                                                                                  | Albania                              |                 |
| 14:30-15:30       | P03 ARNOLD 1                                                                      | Concurrent Poster viewing session – Case reports and Series<br>5 min per poster                                                            | P017-P026<br>(A. Kovanda, K. Writzl) |                 |
|                   | P027-P036<br>(J. Pajić, I. Babić Božović)                                         |                                                                                                                                            |                                      |                 |
|                   | P037-P046<br>(O. Antonova, F. Burada)                                             |                                                                                                                                            |                                      |                 |
| 15:30-16:30       | S8                                                                                | Screening and prevention programmes in the Balkan countries<br>(T. Bahsi, F. Burada)                                                       |                                      |                 |
|                   | S8.01.P<br>20 min                                                                 | PGT and hereditary breast cancer - can and should we break the chain?                                                                      | S. Hadjidekova                       | Bulgaria        |
|                   | S8.02.P<br>20 min                                                                 | Combating Rare Diseases - Preconception and newborn screening programs in Turkey                                                           | T. Bahsi                             | Turkey          |
|                   | S8.03.O<br>20 min                                                                 | Facing Uncertainty in Prenatal Screening: Personal and Social Resources for Psychological Resilience                                       | J. Jakerlová                         | Czech republic  |
| 16:30-17:40       | S9                                                                                | Advanced treatments for genetic disorders and cancer<br>(D. Biskup, P. Gasparini)                                                          |                                      |                 |
|                   | S9.01.P<br>30 min                                                                 | On the way to personalized tumor vaccines                                                                                                  | D. Biskup                            | Germany         |
|                   | S9.02.P<br>30 min                                                                 | Drug repurposing for inherited disease                                                                                                     | P. Gasparini                         | Italy           |
|                   | S9.03.O<br>10 min                                                                 | The U-PGx project and PREPARE study in Slovenia: lessons learned on implementation of pharmacogenomics testing                             | V. Dolžan                            | Slovenia        |
| 17:40             | S9.04.S                                                                           | PARPe Diem: Drawing Lessons from Experience to Shape Tomorrow                                                                              |                                      | Astra Zeneca    |
| 18:10-19:10       | S10-R                                                                             | Roundtable: International genomic forum: Strategy for Future Genomic Medicine<br>(O. Miljanović, D. Primorac, P. Gasparini, B. Peterlin)   |                                      |                 |
| 20:00             | Conference Dinner - Grand Hotel Toplice                                           |                                                                                                                                            |                                      |                 |

# DAY 3 Saturday 11th of October 2025

|             |                                                              |                                                                                                                                                 |                      |                                                           |
|-------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------|
| 08:00-09:50 | <b>S11</b>                                                   | <b>Genetics of complex diseases and functional genomics</b><br>( <i>I. Babić Božović, V. Vidović</i> )                                          |                      |                                                           |
|             | <b>S11.01.I</b><br>20 min                                    | APOE, APP, and PSEN1 Mutation Screening in Alzheimer's Disease: A 15-Year Experience in Serbia                                                  | <b>A. Marjanović</b> | <b>Serbia</b>                                             |
|             | <b>S11.02.I</b><br>20 min                                    | Frequency of common variants predisposing to estrogen positive diseases in the Bulgarian population                                             | <b>O. Antonova</b>   | <b>Bulgaria</b>                                           |
|             | <b>S11.03.I</b><br>20 min                                    | Role of SIRT1 and SIRT3 Genetic Polymorphisms in the Risk of Acute Myocardial Infarction among Patients from the Republic of Srpska             | <b>V. Vidović</b>    | <b>Bosna and Herzegovina</b>                              |
|             | <b>S11.04.O</b><br>10 min                                    | Genetic risk factors for anaphylaxis: Insights from somatic KIT p.D816V variant and Hereditary $\alpha$ -tryptasemia                            | <b>M. Rijavec</b>    | <b>Slovenia</b>                                           |
|             | <b>S11.05.O</b><br>10 min                                    | Pediatric multiple sclerosis cases burdened with rare, predicted pathogenic variants in iron metabolism genes                                   | <b>A. Turk</b>       | <b>Slovenia</b>                                           |
|             | <b>S11.06.O</b><br>10 min                                    | Long-Read Sequencing in the Human Genome's Repetitive Landscape: Challenges and Clinical Opportunities                                          | <b>T. Tesovnik</b>   | <b>Slovenia</b>                                           |
|             | <b>S11.07.O</b><br>10 min                                    | Identifying patterns of differential methylation in multiple sclerosis by positional integration approach and their functional characterization | <b>N. Mele</b>       | <b>Slovenia</b>                                           |
|             | <b>S11.08.O</b><br>10 min                                    | Connecting the Dots: Genetics, Diet, and Microbiome in Endometriosis (EM)                                                                       | <b>A. Santin</b>     | <b>Italy</b>                                              |
| 10:00       | <b>S11.09.O</b><br>10 min                                    | Severe Clinical Phenotype in Alport Syndrome Due to Two COL4A4 Exon Skipping Events                                                             | <b>A. Zupan</b>      | <b>Slovenia</b>                                           |
|             | <b>S11.10.S</b>                                              | <b>NGS solutions for Human genetics</b>                                                                                                         | <b>Agilent</b>       |                                                           |
| 10:20-11:20 | <b>P06</b><br>ARNOLD 1<br>5 min per poster                   | <b>Concurrent Poster viewing session – complex and functional genomics</b>                                                                      |                      | <b>P047-P056</b><br>( <i>L. Odak, A. Kovanda</i> )        |
|             | <b>P07</b><br>ARNOLD 2<br>5 min per poster                   | <b>Concurrent Poster viewing session – diagnostics</b>                                                                                          |                      | <b>P058-P067, P069</b><br>( <i>T. Pajič, M. Rijavec</i> ) |
| 11:20-13:00 | <b>S12</b>                                                   | <b>Expanding the genotype-phenotype landscape of genetic disorders in the Balkans</b><br>( <i>S. Bertok, A. Marjanović</i> )                    |                      |                                                           |
|             | <b>S12.01.P</b><br>20 min                                    | Write according to the rules, read between the lines                                                                                            | <b>M. Djurišić</b>   | <b>Serbia</b>                                             |
|             | <b>S12.02.O</b><br>10 min                                    | Genetics of porphyria. Efforts to associate specific mutations with clinical manifestations                                                     | <b>T. Todorov</b>    | <b>Bulgaria</b>                                           |
|             | <b>S12.03.O</b><br>10 min                                    | Expanding the Genotypic Spectrum of Epidermolysis Bullosa: A Case Series                                                                        | <b>E. H. Ceylan</b>  | <b>Turkey</b>                                             |
|             | <b>S12.04.O</b><br>10 min                                    | Genotype-Phenotype Correlation in TTN Gene Variants                                                                                             | <b>M. B. Yilmaz</b>  | <b>Turkey</b>                                             |
|             | <b>S12.05.O</b><br>10 min                                    | Challenges and Rewards in Diagnosing Diamond-Blackfan Anaemia: A Case Series from Cooperating Regional Tertiary Care Centres                    | <b>T. Pajič</b>      | <b>Slovenia</b>                                           |
|             | <b>S12.06.O</b><br>10 min                                    | Body mass index is an overlooked confounding factor in clustering studies of 3D facial scans of children with autism spectrum disorder          | <b>M. Schwarz</b>    | <b>Czech republic</b>                                     |
|             | <b>S12.07.O</b><br>10 min                                    | Genetic Basis of Familial Hypercholesterolemia in Serbia: Detection of a Frequently Observed Mild-Phenotype LDLR Variant                        | <b>J. Komazec</b>    | <b>Serbia</b>                                             |
|             | <b>S12.08.O</b><br>10 min                                    | Hereditary Myopathies in 45 Turkish Patients: Genetic Spectrum and Diagnostic Outcomes                                                          | <b>S. Demir</b>      | <b>Turkey</b>                                             |
| 13:00-13:20 | <b>S12.09.O</b><br>10 min                                    | Biomolecular characterization of hereditary transthyretin amyloidosis in Bulgaria                                                               | <b>A. Todorova</b>   | <b>Bulgaria</b>                                           |
|             | <b>Closing sessions</b>                                      |                                                                                                                                                 |                      |                                                           |
| 13:00-13:20 | Best poster and oral presentation award winners announcement |                                                                                                                                                 |                      |                                                           |
|             | Closing remarks and thanks                                   |                                                                                                                                                 |                      |                                                           |
| 13:20       | <b>Lunch break</b>                                           |                                                                                                                                                 |                      |                                                           |
| 14:00-16:00 | <b>WS.02</b>                                                 | <b>Workshop: Translational research on rare diseases</b>                                                                                        |                      | <b>M. Stojiljkovic</b>                                    |