

Meeting programme



Wednesday, September 20, 2023

11:00 – 13:30	Registration	<i>entrance hall / Pacific piano bar & Foyer (Convention Centre Portus)</i>
13:30 – 14:00	Opening ceremony	<i>Cristoforo Colombo hall</i>
The EMBO Keynote Lecture		<i>Cristoforo Colombo hall</i>
14:00	PL1 Mitotic Magic: How Cells Achieve Accurate Chromosome Segregation <i>Iva Tolić</i> (Ruđer Bošković Institute, Croatia)	
15:00 – 15:30	Coffee break	<i>Pacific piano bar & Foyer</i>
Synthetic Biology		<i>Cristoforo Colombo hall</i>
Chairs: Marko Dolinar, Iva Hafner Bratkovič		
15:30	L1 Genetically controlled interfaces with mammalian cells <i>Gil Westmeyer</i> (Technical University of Munich, Germany)	
16:00	L2 First steps of a completely de-novo designed random protein walker <i>Ajasia Ljubetič</i> (National Institute of Chemistry)	
16:30	S1 Regulation of CD19 CAR-T cell activation based on an engineered downstream transcription factor <i>Duško Lainšček</i> (National Institute of Chemistry)	
16:50	S2 Hierarchical DNA assembly in yeast cells <i>Uroš Petrovič</i> (University of Ljubljana, Biotechnical Faculty)	
17:10	S3 A method for targeting a specified segment of DNA inside the bacterial microcompartment <i>Maja Hostnik</i> (University of Ljubljana, Biotechnical Faculty)	
Sponsors' lectures		<i>Cristoforo Colombo hall</i>
17:30	MGI Tech. co. / Mikro+Polo: Innovative sequencing with DNA nanoball	
17:50	NanoTemper: Measure interactions of peptides and other biomolecules with Spectral Shift to minimize assay development time	
18:10	TelesBio / Kemomed: From sequence design to automated assembly, cloning, NGS library and <i>in vitro</i> transcription	
18:30 – 20:00	Poster session I	<i>Ronald Amundsen & Robert Scott halls</i>
20:00 – 22:00	Welcome dinner	<i>Meduza Beach Bar</i>

Thursday, September 21, 2023

Molecular Basis of Disease I

Cristoforo Colombo hall

Chairs: Barbara Breznik, Boris Turk

- 8:30 L3 **New molecular probes for profiling active MMPs in complex proteomes**
Laurent Devel (Université Paris-Saclay, CEA, INRAE, France)
- 9:00 L4 **Cysteine cathepsins in inflammation-associated diseases: the good the bad and the ugly**
Boris Turk (Jožef Stefan Institute)
- 9:30 S4 **Stefin B increases autophagic flux and AMPK activation in macrophages**
Nataša Kopitar Jerala (Jožef Stefan Institute)
- 9:50 S5 **Melanoma antigens in pancreatic cancer and glioblastoma are markers and drivers of therapy resistance**
Klementina Fon Tacer (School of Veterinary Medicine, Texas Tech University, USA)
- 10:10 S6 **Phenylalanine-tRNA aminoacylation is compromised by ALS/FTD-associated C9orf72 antisense repeat RNA**
Urša Čerček (Jozef Stefan Institute)

10:30 – 11:00

Coffee break

Pacific piano bar & Foyer

Functional Genomics and Systems Biology

Cristoforo Colombo hall

Chairs: Kristina Gruden, Uroš Potočnik, Tadeja Režen

- 11:00 L5 **Crises Abound: Health, Climate, Energy, Food, Pandemics. How Large-Scale Systems Biology Can Help Address the Major Challenges We Are Facing**
Daniel A. Jacobson (Oak Ridge National Laboratory, USA)
- 11:30 L6 **A Modeler's Perspective on the Design and Analysis of Biological Systems: From Synthetic Biology to Systems Medicine Applications**
Miha Moškon (University of Ljubljana, Faculty of Computer and Information Science)
- 12:00 S7 **Exploration of pharmacogenomic biomarkers of adalimumab (non)response in Crohn's disease patients using single-cell RNA sequencing**
Mario Gorenjak (University of Maribor, Faculty of Medicine)
- 12:20 S8 **The Role of Sterol Intermediates in Gene Regulation: Insights from Targeted Knockouts of Cholesterol Synthesis Enzymes**
Cene Skubic (University of Ljubljana, Faculty of Medicine)
- 12:40 S9 **3'UTR ribonucleoprotein reassembly drives selective mRNA decay to implement developmental signalling**
Miha Modič (National Institute of Chemistry)

13:00 – 14:00

Lunch

Hotel restaurant Adria

Biochemical Education

Cristoforo Colombo hall

Chairs: Aljoša Bavec, Ferhan Saĝin

- 14:00 L7 **Why and how should you develop and improve your educator skills?: Tips for both junior & senior scientists**
Ferhan Saĝin (Ege University Medical Faculty, Department of Medical Biochemistry, Turkey)
- 14:30 L8 **COVID - lessons for education**
Blaž Cigić (University of Ljubljana, Biotechnical Faculty)
- 15:00 S10 **Current challenges and opportunities for AI in education**
David Smith (Sheffield Hallam University, United Kingdom)

15:30 S11 **Ai and VR assisted teaching**

Damjana Kastelic (Center for Genomic Regulation, Barcelona, Spain)

16:00 – 16:30

Coffee break

Pacific piano bar & Foyer

Biotechnology and Bionanotechnology

Cristoforo Colombo hall

Chairs: Gregor Gunčar, Nataša Poklar Ulrih

16:30 L9 **Functionalization of parametrically designed helix bundles by deviating from ideal geometries**

Gustav Oberdorfer (Graz University of Technology, Department of Biochemistry, Austria)

17:00 L10 **Hidden antibiotics in actinobacteria**

Hrvoje Petković (University of Ljubljana, Biotechnical Faculty)

17:30 S12 **Optimization of the extraction of extracellular polymeric substances from lactic acid bacteria and their characterization**

Jerica Sabotič (Jožef Stefan Institute)

17:50 S13 **Unravelling the biosynthesis of irregular polyprenyl backbone of the *Planococcus citri* (*Insecta*) sex pheromone**

Mojca Juteršek (National Institute of Biology)

18:10 S14 **Upgrading nanopore biosensing with unnatural amino acids**

Ana Crnković (National Institute of Chemistry)

Sponsors' lectures

Cristoforo Colombo hall

18:30 **Accela / Medipro:** Analyze and sort more than 40 markers in one tube with Cytex Spectral Technology

18:50 **Promega / Kobis:** LumitTM Immunoassays

19:10 **Quantabio/ Avantor VWR:** Speed with precision: From cloning to sequencing, improve your PCR workflows

19:30 – 21:30 **Poster session II**

Ronald Amundsen & Robert Scott halls

Friday, September 22, 2023

Cell Signalling and Membranes

Cristoforo Colombo hall

Chairs: Metka Lenassi, Tom Turk

- 8:30 L11 **Extracellular Vesicles: Diversity of Form and Function**
Kenneth Witwer (Johns Hopkins University School of Medicine, Molecular and Comparative Pathobiology, USA)
- 9:00 L12 **Cystatin F potential in the immunotherapy of cancer**
Milica Perišić Nanut (Jožef Stefan Institute)
- 9:30 S15 **Characterization of archaeosomes from polar lipids of *Aeropyrum pernix* K1 and stability in biological systems**
Jan Keižar (University of Ljubljana, Biotechnical Faculty)
- 9:50 S16 **New upstreaming signaling pathways of NIX regulation in development-induced mitophagy**
Mija Marinković (School of Medicine, University of Split)
- 10:10 S17 **ASO-Mediated Inhibition of MyD88L265P-dependent signaling as a Therapeutic Approach for Waldenström's Macroglobulinemia**
Peter Pečan (National institute of Chemistry)

10:30 – 11:00

Coffee break

Pacific piano bar & Foyer

Molecular Basis of Disease II

Cristoforo Colombo hall

Chairs: Vita Dolžan, Janko Kos, Boris Rogelj

- 11:00 L13 **Maintaining ER-mitochondria contacts is neuroprotective in C9orf72 ALS**
Smita Saxena (University of Bern, Switzerland)
- 11:30 L14 **Understanding Fabry nephropathy: genetic and biochemical approach**
Katarina Trebušak Podkrajšek (University of Ljubljana, Faculty of Medicine)
- 12:00 S18 **Inhibition of cathepsins B and X promote differentiation of cancer stem cells**
Ana Mitrović (University of Ljubljana, Faculty of Pharmacy)
- 12:20 S19 **11-hydroxylated androgen metabolites as risk factors and source of androgen receptor-activating hormones in endometrial cancer**
Marija Gjorgoska (University of Ljubljana, Faculty of Medicine)
- 12:40 S20 **Circular RNAs as potential peripheral blood biomarkers for amyotrophic lateral sclerosis**
Metka Ravnik-Glavač (University of Ljubljana, Faculty of Medicine)

13:00 – 14:00

Lunch

Hotel restaurant Adria

Molecular Interactions and Networking

Cristoforo Colombo hall

Chairs: Mateja Manček Keber, Igor Križaj

- 14:00 L15 **Careful and systematic observations in basic and applied research**
Manjunatha R. Kini (Faculty of Science, National University of Singapore, Singapore)
- 14:30 L16 **Intra and interspecies social behaviors by beneficial bacterium *Bacillus subtilis***
Ines Mandić Mulec (University of Ljubljana, Biotechnical Faculty)
- 15:00 S21 **Désirée in distress - a system biology approach: from statistics to networks**
Maja Zagorščak (National Institute of Biology)
- 15:20 S22 **Impact of mislocalization on the TDP-43 protein network**
Jerneja Nimac (Jožef Stefan Institute)

15:30 S23 **The role of AMP-activated protein kinase in regulation of Na⁺,K⁺-ATPase: the gauge does not always plug the sink**

Sergej Pirkmajer (University of Ljubljana, Faculty of Medicine)

16:00 – 16:30	Reception for participants of the assembly	<i>Galea hall (GH Portorož)</i>
16:30 – 19:00	Assembly of the Slovenian Biochemical Society & Instruct.SI consortium	<i>Galea hall (GH Portorož)</i>
19:45 – 22:30	Conference dinner (with live music)	<i>Cristoforo Colombo hall</i>

Saturday, September 23, 2023

Protein Structure and Function

Cristoforo Colombo hall

Chairs: Brigita Lenarčič, Marjetka Podobnik

- 9:30 L17 **Order from disorder: towards molecular architecture of the muscle Z-disk assembly by integrative structural biology**
Kristina Dijinović-Carugo (European Molecular Biology Laboratory (EMBL) Grenoble, France)
- 10:00 L18 **Structure of protein nanopore reveals organization of membrane lipids and provides basis for designing nanopores for sensing applications**
Gregor Anderluh (National Institute of Chemistry)
- 10:30 S24 **Calpeptins: dual inhibitors of human cathepsins and SARS-CoV-2 main protease**
Jure Loboda (Jožef Stefan Institute)
- 10:50 S25 **Broad range phospholipase C of *Listeria monocytogenes* facilitates LLO-mediated destruction of lipid membranes**
Nejc Petrišič (National Institute of Chemistry)
- 11:10 S26 **Glycoengineering as a tool to design regression models for prediction of monoclonal antibody function from its structure**
Tamara Cvijić (Novartis)

11:30 – 12:00

Coffee break

Pacific piano bar & Foyer

The FEBS National Lecture

Cristoforo Colombo hall

- 12:00 PL2 **The pABC world: an open modular construction environment for synthetic multipartite bacterial genomes**
Anke Becker (Philipps-Universität Marburg, Centre for Synthetic Microbiology, Germany)

13:00 – 13:30

Closing remarks

Cristoforo Colombo hall

List of posters

Poster session I (Wednesday, 18:30 – 20:00)

Poster	Synthetic Biology
P1	Engineering and characterization of lactic acid bacteria expressing cellulases Petra Štravs, Stéphanie Perret, <u>Aleš Berlec</u>
P2	Rewiring innate immune pathways by synthetic biology tools for the development of novel biosensors of microbial activity Taja Železnik Ramuta, Maša Bratkovič, Zoja Jesih, Alenka Mozer, Roman Jerala, <u>Iva Hafner Bratkovič</u>
P3	Binding Gas Vesicles to the Surface of Mammalian Cells <u>Vid Jazbec</u> , Nina Varda, Andreja Kežar, Marjetka podobnik, Roman Jerala, Mojca Benčina
P4	Designed multi-chain polypeptide nanostructures stabilized by intein cyclization <u>Jaka Snoj</u> , Fabio Lapenta, Roman Jerala
Molecular Basis of Disease I	
P5	MicroRNAs as biomarkers in spinal muscular atrophy <u>Maruša Barbo</u> , Gregor Jezernik, Damjan Glavač, Metka Ravnik Glavač
P6	Genetic basis of erythrocytosis in Slovenia Aleša Kristan, Jana Tomc, Petra Hudler, Tadeja Režen, Damjana Rozman, Tanja Kunej, Martina Fink, Saša Anžej Doma, Irena Preložnik Zupan, Tadej Pajič, Aleš Maver, Rok Količ, Andrej Vuga, <u>Nataša Debeljak</u>
P7	Monitoring for phytopathogenic fungus <i>Phyllosticta citricarpa</i> in air and rain collected in European and Tunisian citrus orchards <u>Sara Fišer</u> , Maja Ferle, Antonio Vicent, Naima Boughalleb-M'Hamdi, Maja Ravnikar, Polona Kogovšek
P8	Adalimumab response negatively correlates with IL1B expression in macrophages differentiated from Crohn's disease patients' monocytes Boris Gole, Cvetka Pernat, <u>Gregor Jezernik</u> , Uroš Potočnik
P9	IELs, their metabolic reprogramming and dependence on metabolites during activation <u>Špela Konjar</u>
P10	A dynamic interplay of cytosolic and lysosomal lipid droplet breakdown pathways supports the adaptation of cancer cells to nutrient stress <u>Špela Koren</u> , Maida Jusovič, Mauro Danielli, Leja Perne, Eva Jarc Jovičič, Pia Starič, Ema Guštin, Michele Wölk, Maria Fedorova, Toni Petan
P11	Macular Telangiectasia Type 2 (MacTel 2): retrospective analysis of Slovenian patients with overview of genetic background <u>Ajda Kunčič</u> , Mojca Urbančič, Darja Dobovšek Divjak, Petra Hudler, Nataša Debeljak
P12	Leukocyte telomere length dynamics in patients with Fabry disease <u>Tina Levstek</u> , Bojan Vujkovic, Katarina Trebušak Podkrajšek
P13	Structural insight into the enzymes involved in the synthesis of the S-layer-anchoring polysaccharide ligand of <i>Clostridioides difficile</i> <u>Nataša Lindič</u> , Aleksandra Usenik, Jure Loboda, Matej Novak, Marinka Horvat, Tjaša Peternel, Jure Borišek, Nikola Minovski, Janez Mravljak, Martina Hrast Rambaher, Marjana Novič, Robert Vidmar and Dušan Turk

- P14 **Protective and adverse effects of aripiprazole on the liver cells**
Barbara Kramar, Tinkara Pirc Marolt, Dušan Šuptu, Irina Milisav
- P15 **Abl-kinase mediated phosphorylation of FUS in FTLD**
Helena Motaln, Urša Čerček, Anand Goswami, Boris Rogelj
- P16 **Interactome of FUS and FUSdNLS**
Helena Motaln, Miha Milek, Katarina van Midden, Boris Rogelj
- P17 **Decoding the enigma: sex-specific differences in IC/BPS**
Dominika Peskar, Tadeja Kuret, Emanuela Boštjančič, Katja Lakota, Andreja Erman
- P18 **Serum proteome profiles in children with severe asthma**
Maya Petek, Michael Kabesch, Anke H Maitland-van der Zee, Erik Melén, Susanne Reinartz, Susanne J H Vijverberg, Uroš Potočnik
- P19 **Amyloid beta peptide interaction with profilin 1**
Urša Pečar Fonovič, Marija Nika Lovšin, Slavko Kralj, Janko Kos
- P20 **Analysis of the inflammatory potential of alumina matrix ceramic composite wear particles on osteoarthritic patients immune cells**
Sara Polajžer, Alessandro Alan Porporati, Yvonne Mödinger, Ulrike Desinger, Melanie Mettang, Rihard Trebše, Nika Lovšin
- P21 **Low-activity MTHFR elicits higher susceptibility to methotrexate, trimethoprim and sulfasalazine**
Jaka Rotman Primec, Dunja Urbančič, Ksenija Geršak, Irena Mlinarič-Raščan
- P22 **HMEC-1 cell line as a model to study microvascular endothelial cell abnormalities associated with hemophilia**
Pavla Röselová, Kateřina Kuželová, Denisa Myslivcová
- P23 **Impairment of cystatin F activation can modulate the cytotoxicity of NK cells**
Emanuela Senior, Ana Mitrovič, Marko Jukič, Matic Proj, Barbara Breznik, Stanislav Gobec, Janko Kos, Milica Perišić Nanut
- P24 **Brain-Derived Neurotrophic Factor DNA Methylation and Expression in Alzheimer's Disease and Mild Cognitive Impairment**
Katarina Kouter, Matea Nikolac Perkovic, Gordana Nedic Erjavec, Tina Milos, Lucija Tudor, Suzana Uzun, Ninoslav Mimica, Nela Pivac, Alja Videtič Paska
- P25 **Evaluating the Role of Cathepsin X and Its Target γ -Enolase in Animal Model of Autoimmune Inflammatory Diseases**
Selena Pavšič, Biljana Božič Nedeljkovič, Urša Pečar Fonovič, Sanja Pekovič, Janko Kos, Anja Pišlar
- P26 **Sequestration of hnRNPH in nuclear G4C2 foci and cytoplasmic stress granules of C9orf72 amyotrophic lateral sclerosis**
Nives Škorja Milič, Sonja Prpar Mihevc, Valter Bergant, Julija Mazej, Urša Čerček, Alfredo Castello, Gregor Gunčar, Vera Župunski, Boris Rogelj
- P27 **Exploring the Influence of Genetic Variability in Inflammatory Pathways on the Severity and Short-Term Consequences of COVID-19**
Patricija Štampar, Tanja Blagus, Petra Bogovič, Gabriele Turel, Franc Strle, Vita Dolžan

Functional Genomics and Systems Biology

- P28 **Vitamin A-enriched diet affects gene expression of inflammatory and retinoic acid signalling pathways in a mouse model of cystitis**
Brina Dragar, Simona Kranjc Brezar, Tanja Jesenko, Maja Čemažar, Rok Romih, Daša Zupančič
- P29 **Endophytic bacteria isolated from sterile potato plants: A genomic approach to characterization**
Tim Godec, Marko Petek, Tjaša Lukan, Polonca Štefanič, Ines Mandić Mulec, Kristina Gruden
- P30 **RSAD2 is a potential predictor of response to omalizumab in paediatric asthma**
Larisa Goričan, Boris Gole, Gregor Jezernik, Mario Gorenjak, Vojko Berce, Maja Skerbinjek Kavalar, Korneliusz Golebski, Cornelis M van Drunen, Michael Kabesch, Anke H Maitland-van der Zee, Erik Melén, Susanne Reinartz, Susanne J H Vijverberg, Uroš Potočnik, on behalf of the PERMEABLE
- P31 **The role of Hnrnp1 decoy splice site in regulating gene expression**
Urška Janjoš, Rupert Faraway, Jernej Ule
- P32 **PeptideVisualizer: A novel software solution for PROTOMAP-based determination of protease substrates**
Matej Kolarič, Robert Vidmar, Tilen Sever, Marija Grozdanič, Sara Ivanovski, Boris Turk, Marko Fonovič
- P33 **Assessing the potential of cholesterol-related sterols in predicting the progression of COVID-19 disease**
Eva Kočar, Sonja Katz, Žiga Pušnik, Petra Bogovič, Gabriele Turel, Cene Skubic, Tadeja Režen, Franc Strle, Vitor A. P. Martins dos Santos, Miha Mraz, Miha Moškon, Damjana Rozman
- P34 **Variant in the EGLN1 gene has a potential impact on the development of erythrocytosis**
Aleša Kristan, Jure Stojan, Tadeja Režen, Petra Hudler, Nataša Debeljak
- P35 **Transcriptomics of plaque lesions at different anatomical locations obtained by non-invasive skin tape-stripping in psoriatic patients**
Martina Krušič, Maruška Marovt, Uroš Potočnik
- P36 **Link Prediction on Comprehensive Knowledge Graph**
Martin Marzidovšek, Živa Ramšak, Kristina Gruden, Vid Podpeč
- P37 **Sleep diary outperforms actimetry and gene expression analysis from blood plasma in evaluating obstructive sleep apnea**
Julija Šmon, Katarina Nahtigal, Eva Kočar, Leja Dolenc Grošelj, Damjana Rozman
- P38 **Nanopore sequencing enables phasing of a tetraploid potato locus with tandemly repeated TGA genes**
Marko Petek, Špela Tomaž, Kristina Gruden
- P39 **Importance of PVY coat protein in plant virus movement**
Katja Stare, Tjaša Mahkovec Povalej, Kristina Gruden, Anna Coll
- P40 **Uncovering the circRNA Transcriptome in Hepatocellular Carcinoma using Long-read Nanopore Sequencing**
Hana Trček, Rok Razpotnik, Blaž Trotovšek, Mihajlo Đokić, Miha Petrič, Boštjan Plešnik, Arpad Ivanecz, Damjana Rozman, Tadeja Režen

- P41 **Mechanisms of chemical toxicity inferred by functional genomics approaches in *Chlamydomonas reinhardtii***
Tim Godec, Carissa Robyn Bleker, Živa Ramšak, Milena Horvat, Maruša Kerenčič, Tina Eleršek, Katarina Petra van Midden, Tina Kosjek, Kristina Sepčič, Anže Županič
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- Biotechnology and Bionanotechnology**
- P42 **Increasing yield of IVT reaction with at-line HPLC monitoring for continuous production of mRNA**
Rok Sekirnik, Janja Skok, Polona Megušar, Tina Vodopivec, Aleš Štrancar, Domen Pregeljč
- P43 **Innovative affinity-based filter for isolation of the CD90-expressing human mesenchymal stem cells from cell suspensions**
Laura Činč, Tanja Zidarič, Tadej Tofant, Tina Maver, Jan Rožanc, Larisa Goričan, Minja Gregorič, Uroš Potočnik, Luka Fajs, Boris Simončič, Uroš Maver, Boris Gole
- P44 **Following the rate of cell death initiation in potato hypersensitive response by digital microscope**
Tina Arnšek, Tjaša Lukan, Nuša Golob, Nastja Marondini, Maruša Pompe Novak, Kristina Gruden
- P45 **Environmentally friendly protection of potatoes against Colorado potato beetle**
Karmen Pogačar, Maja Grundner, Primož Žigon, Anna Coll, Anastasija Panevska, Tjaša Lukan, Marko Petek, Jaka Razinger, Kristina Gruden, Kristina Sepčič
- P46 **Establishing protocol for inoculation of potato plants with *Fusarium oxysporum* to study complex plant microbial interactions**
Anže Vozelj, Tim Godec, Karmen Pogačar, Marko Petek, Tjaša Lukan, Kristina Gruden
- P47 **Following chloroplast redox state and stomules frequency around the cell death zone in potato hypersensitive response**
Nuša Golob, Tjaša Lukan, Anže Županič, Tjaša Mahkovec Povalej, Nastja Marondini, Karmen Pogačar, Kristina Gruden
- P48 **The influence of codon usage on translation dynamics and protein folding**
Martin Špendl, Gregor Gunčar
- P49 **Diverse structural landscape of potyviral coat protein assemblies**
Luka Kavcic, Andreja Kežar, Neža Koritnik, Magda Tušek-Žnidarič, Franci Merzel, Elena Holden, Justin L. P. Benesch, Marjetka Podobnik
- P50 **Localisation of potato virus Y VPg protein during the infective cycle using confocal microscopy**
Tjaša Mahkovec Povalej, Tjaša Lukan, Valentina Levak, Kristina Gruden, Anna Coll
- P51 **Chimeric vaccine for hypercholesterolemia treatment**
Špela Malenšek, Duško Lainšček, Anja Golob Urbanc, Hana Esih, Sara Orehek, Aleš Blinc, Roman Jerala
- P52 **Recombinant Probiotic *Lactococcus lactis* Secreting Endolysins Against Pathogenic Bacteria *Clostridioides difficile***
Jure Pohleven, Maruša Bizjak, Maja Rupnik, Aleš Berlec
- P53 **New insights in biology of fungal lipid-binding aegerolysins**
Larisa Lara Popošek, Matija Hrovatin, Urška Kržič, Ana Slavič, Žan Perko, Gregor Bajc, Nada Kraševc, Kristina Sepčič, Matej Skočaj
- P54 **Human histone fingerprinting based on the novel actinoporin homolog pores**
Marija Srnko, Gašper Šolinc, Ana Crnković, Marjetka Podobnik, Gregor Anderluh

- P55 **Engineering of vaginal lactobacilli, their incorporation into electrospun nanofibers and interaction with epithelial cells.**
Spase Stojanov, Tina Vida Plavec, Julijana Kristl, Špela Zupančič, Aleš Berlec
- P56 **Regenerating embryos from single cells of grapevine cv. Zweiglet**
Rebeka Strah, Edoardo Bertini, Sara Zenoni, Maruša Pompe Novak, Marina Dermastia
- P57 **Monitoring and optimization of *Listeria innocua* biofilm eradication by antibacterial nanoparticles**
Nika Zaveršek, Elena Hajdarović, Sebastjan Nemec, Maja Caf, Anja Mlinšek, Nika Janež, Slavko Kralj, Stane Pajk, Jerica Sabotič
- P58 **Removal of *Escherichia coli* biofilm by magnetic nanoparticles**
Manca Černila, Sebastjan Nemec, Slavko Kralj, Aleš Berlec
- P59 **An innovative process for the production of bioethanol: Optimization and kinetic assessment**
Marinela Šokarda Slavić, Aleksandra Margetič, Biljana Dojnov, Miroslava Vujčić, Marina Ristović, Nataša Božić, Zoran Vujčić
- P60 **Newly developed PVY-N605(123)-mTurquoise2 infectious clone for functional analyses in plant-PVY interaction**
Ana Žuran, Tjaša Lukan, Nuša Golob, Tjaša Mahkovec Povalej, Nastja Marondini, Anna Coll, Mojca Juteršek, Valentina Levak, Kristina Gruden
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Poster session II (Thursday, 19:30 – 21:30)

Poster **Cell Signaling and Membranes**

- P61 **Effect of differentiation of primary human skeletal muscle cells on expression of receptors for the IL-6 family cytokines**
Nuša Brdnik, Katarina Miš, Sergej Pirkmajer
- P62 **Expression of secretory pathway kinase FAM20C and its regulator FAM20A depends on differentiation stage of cultured skeletal muscle cells**
Katja Fink, Katarina Miš, Marjeta Milostnik, Sergej Pirkmajer
- P63 **Characteristics of plasma EVs in healthy adults and the influence of recent mild COVID-19**
Marija Holcar, Ivica Marić, Katja Goričar, Nina Mavec, Urška Čegovnik Primožič, Darko Černe, Metka Lenassi
- P64 **Unveiling MLKL Protein: Exploring Nanobody Interaction, Membrane Disruption, and Oligomerization**
Marija Kisilak, Gregor Gunčar
- P65 **Cell Bank of Primary Human Skeletal Muscle Cells: An In Vitro System for Investigating Idiopathic Inflammatory Myopathies**
Anja Srpčič, Katarina Miš, Katja Lakota, Katja Perdan Pirkmajer, Sergej Pirkmajer
- P66 **Glucose-mediated regulation of isoform-specific expression of Na⁺,K⁺-ATPase in cultured skeletal muscle cells**
Anja Vidović, Alexander V. Chibalin, Sergej Pirkmajer
- P67 **Evaluation of the functional reserve of the IL-6 receptors IL-6R α and gp130 in cultured human skeletal muscle cells**
Barbara Žvar Baškovič, Anja Srpčič, Katja Lakota, Katja Perdan Pirkmajer, Katarina Miš, Sergej Pirkmajer
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Molecular Basis of Disease II

- P68 **Contribution of APOBEC proteins 3A and 3B to the oncogenicity of HPV viruses**
Nika Marija Lovšin, Fabio Lapenta, Urša Pečar Fonovič, Katerina Jazbec, Elvira Maličev, Martina Bergant Marušič
- P69 **CTLA4 polymorphisms play a role in asbestos-related diseases**
Tanja Blagus, Irma Zeljković, Katja Goričar, Danijela Štrbac, Alenka Franko, Viljem Kovač, Vita Dolžan
- P70 **Chemotherapy affects the metabolism of glioblastoma stem cells and differentiated cells differently**
Katrin S. Galun, Bernarda Majc, Anamarija Habič, Cornelis J.F. van Noorden, Barbara Breznik, Miloš Vittori, Urban Bogataj, Metka Novak
- P71 **New inhibitors of AKR1C enzymes and their effect on ovarian cancer cell lines**
Ajda Godec, Maša Sinreih, Dániel Aszmann, Péter Traj, Vivien Resch, Gábor Paragi, Erzsébet Mernyák, Tea Lanišnik Rižner
- P72 **Whole blood transcriptomics for biomarker discovery in endometriosis**
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