

Congress of Molecular Biologists of Serbia



MAIN CONGRESS ORGANIZER



Serbian Society for Molecular Biology (MolBioS)

IMPORTANT DATES

Abstract submission
June 15, 2023

Abstract acceptance July 15, 2023

Early bird registration August 1, 2023

https://indico.bio.bg.ac.rs/e/CoMBoS2

CONGRESS ORGANIZERS



Serbian Society for Molecular Biology (MolBioS)



University of Belgrade, Institute for Biological Research "Siniša Stanković", National Institute of the Republic of Serbia



University of Belgrade, Faculty of Biology



University of Belgrade, Institute of Molecular Genetics and Genetic Engineering



University of Belgrade, Institute of Nuclear Sciences "Vinča", National Institute of the Republic of Serbia



University of Novi Sad, Faculty of Sciences, Department of Biology and Ecology



University of Kragujevac, Faculty of Science, Department of Biology and Ecology



University of Belgrade, Institute for Medical Research, National Institute of the Republic of Serbia



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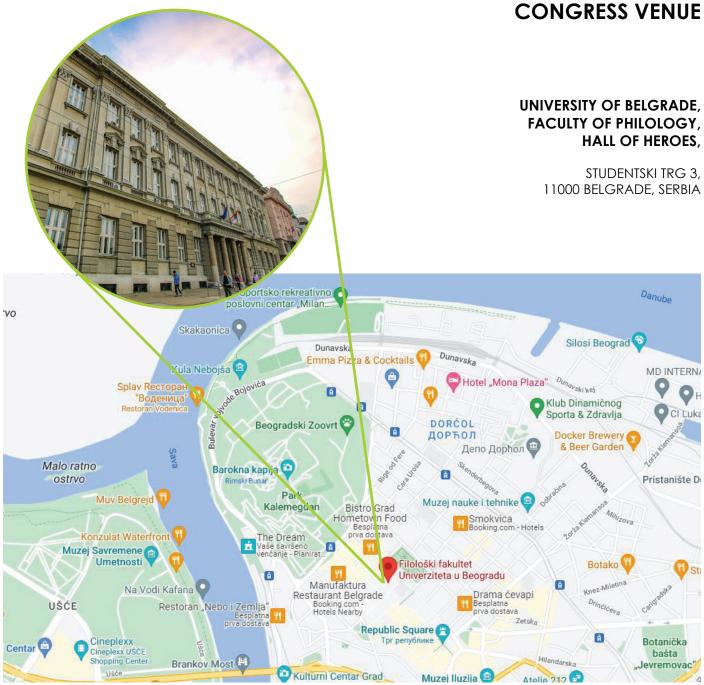
Hotel Palace

Propaganda Film & Video

NetPlanet

Dušan Radojević





OFFICIAL LANGUAGE OF THE CONGRESS

English



WELCOME ADDRESS



Professor Dušanka Savić Pavićević President of the Serbian Society for Molecular Biology



Dr. Melita VidakovićPresident of the Steering Committee of the Serbian Society for Molecular Biology

Dear colleagues and friends,

On behalf of The Serbian Society for Molecular Biology (MolBioS), with great pleasure, we invite you to Belgrade for the Second Congress of Molecular Biologists of Serbia (CoMBoS2). CoMBoS2 will be held from October 6-8, 2023 in the Hall of Heroes at the Faculty of Philology, located in the heart of the city. The program covers many fields of molecular biology, including molecular biomedicine, molecular biotechnology and molecular cell biology. It consists of plenary and invited lectures, workshops, poster sessions and the project corner, with special attention paid to students and young scientists.

We aim to foster curiosity, communication and collaboration, as well as to provide an opportunity for molecular biologists and related scientists to share ideas and experiences and be inspired by the outstanding lectures of renowned scientists and experts.

We celebrated 50 years of the molecular biology school in Serbia last year, and we dedicate this congress to our late professors Ana Savić and Vladimir Glišin.

WE LOOK FORWARD TO WELCOMING YOU IN BELGRADE AT COMBOS 2



CONGRESS COMMITTEES

HONORARY COMMITTEE

Jelena BEGOVIĆ

Minister of Science, Technological Development and Innovations of the Republic of Serbia

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Milan STANKOVIĆ

Head of the Department of Biology and Ecology, University of Kragujevac, Faculty of Science

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retired Professor

Svetlana RADOVIĆ

retired Professor

Ljubiša TOPISIROVIĆ

retired Professor

Dragutin SAVIĆ

retired Professor

Radomir CRKVENJAKOV

retired Professor

Branka VASILJEVIĆ

retired Principal Research Fellow

Dragica RADOJKOVIĆ

retired Principal Research Fellow

Selma KANAZIR

retired Principal Research Fellow

Goran POZNANOVIĆ

retired Principal Research Fellow

Gordana NIKČEVIĆ

retired Principal Research Fellow

Diana BUGARSKI

retired Principal Research Fellow

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SCIENTIFIC AND ORGANIZING COMMITTEE (MolBioS STUDENT SECTION)

Natalija Miladinović Natalija Miškov Milena Stepić Jana Milenković Milivoje Konstantinović

PLENARY SPEAKERS (in alphabetical order by last name)

Radoje Drmanac

Advanced Genomics Technology Laboratory, Complete Genomics/MGI San Jose, CA, USA

Adrian Harwood

Cardiff University, Cardiff, United Kingdom

Ulrich Keyser

University of Cambridge, Cavendish Lab, Cambridge, UK

Milena Stevanović

Serbian Academy of Science and Arts, Belgrade, Serbia University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade-Faculty of Biology



SECTION PLENARY SPEAKERS (in alphabetical order by last name)

Urs Albrecht

University of Fribourg, Fribourg, Switzerland

Mariagrazia Di Luca

Pisa University, Department of Biology, Pisa, Italy

lvica Dimkić

University of Belgrade-Faculty of Biology, Belgrade, Serbia

Thomasz Jurkowski

Cardiff University, Cardiff, United Kingdom

Tatjana Kostić

University of Novi Sad, Department of Biology and Ecology, Faculty of Science, Novi Sad, Serbia

Jelena Lozo

University of Belgrade-Faculty of Biology, Belgrade, Serbia

Snežana Maljević

The Florey Institute of Neuroscience and Mental Health, Melbourne, Australia

Nemanja Mirković

University of Belgrade, Faculty of Agriculture, Belgrade, Serbia

Đorđe Miljković

University of Belgrade, Institute for Biological Research "Siniša Stanković" - National Institute of the Republic of Serbia, Belgrade, Serbia

Danijela Mišić

University of Belgrade, Institute for Biological Research "Siniša Stanković" - National Institute of the Republic of Serbia, Belgrade, Serbia

Jasmina Nikodinović Runić

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

Matej Orešič

Örebro University, School of Medical Sciences, Örebro, Sweden

Stojan Perić

University Clinical Centre of Serbia, Neurology Clinic, University of Belgrade, Faculty of Medicine, Belgrade, Serbia

Biljana Ristić

University of Belgrade, Institute for Medical Research -National Institute of the Republic of Serbia, Belgrade, Serbia

Nataša Skoko

International Centre for Genetic Engineering and Biotechnology, Trieste, Italy



SECTION PLENARY SPEAKERS (in alphabetical order by last name)

Gabriele Stocco

University of Trieste, Trieste, Italy

Aleksandra Uskoković

University of Belgrade, Institute for Biological Research "Siniša Stanković" - National Institute of the Republic of Serbia, Belgrade, Serbia

Branka Zukić

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

INVITED SPEAKERS (in alphabetical order by last name)

Miloš Brkušanin

University of Belgrade-Faculty of Biology, Belgrade Serbia

Vladan Čokić

University of Belgrade, Institute for Medical Research -National Institute of the Republic of Serbia, Belgrade, Serbia

Ivana Grković

University of Belgrade, Institute of Nuclear Sciences "Vinča" -National Institute of the Republic of Serbia, Belgrade, Serbia

Miroslav Dinić

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

Zorana Dobrijević

University of Belgrade, Institute for the Application of Nuclear Energy (INEP), Belgrade, Serbia

Miodrag Dragoj

University of Belgrade, Institute for Biological Research "Siniša Stanković" - National Institute of the Republic of Serbia, Belgrade, Serbia

Aleksandra Jelušić

University of Belgrade, Institute for Multidisciplinary Research, Belgrade, Serbia

Emilija Jovanović

University of Cambridge, Cambridge, UK

Ivan Jovanović

University of Belgrade, Institute of Nuclear Sciences "Vinča" -National Institute of the Republic of Serbia, Belgrade, Serbia



INVITED SPEAKERS (in alphabetical order by last name)

Sanja Jeremić

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

Andrijana Lazić

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

Milica Keckarević-Marković

University of Belgrade-Faculty of Biology, Belgrade Serbia

Tatjana Mitrović

University of Niš, Faculty of Sciences and Mathematics, Niš, Serbia

Danijela Nikodijević

University of Kragujevac, Faculty of Sciences and Mathematics, Kragujevac, Serbia

Ivan Nikolić

University of Belgrade-Faculty of Biology, Belgrade Serbia

Sanja Stojanović

University of Niš, Faculty of Medicine, Niš, Serbia

Maja Stojiljković

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

Marija Vidović

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

REGISTRATION

Online registration is now open. Please register via:

https://indico.bio.bg.ac.rs/e/CoMBoS2



REGISTRATION FEES

Early registration by August 1, 2023

10000 RSD or 85 EUR

PhD students 7000 RSD or 60 EUR

- * MolBioS members 8000 RSD or 70 EUR
- * PhD students (MolBioS members) 6000 RSD or 50 EUR
- * Please note that the membership fee can only be granted if you are a MolBioS member at the time of registration.

There is no registration fee for undergraduate and master students.

Late registration after August 1, 2023

13000 RSD or 110 EUR

PhD students 9000 RSD or 80 EUR

- * MolBioS members 10000 RSD or 85 EUR
- * PhD Students (MolBioS members) 8000 RSD or 70 EUR

For detailed payment and bank transfer instructions please

click here!

ABSTRACTS

Abstract submission via online platform:

https://indico.bio.bg.ac.rs/e/CoMBoS2

Abstract submission deadline:

June 15, 2023

Abstract acceptance announcement:

July 15, 2023

The guidelines for abstract submission are available on:

https://indico.bio.bg.ac.rs/e/CoMBoS2

Abstracts will be published in English in the electronic Book of Abstracts.

Nine abstracts will be selected for Flesh presentations and one e-poster from each session will be awarded.

FELLOWSHIPS

A certain number of fellowships covering registration and accommodation are available for PhD students and researchers up to 35 years of age. Please, express your interest when registering for CoMBoS2.

WORKSHOPS

Workshop registration via online platform:

https://indico.bio.bg.ac.rs/e/CoMBoS2

Workshop registration deadline:

June 15, 2023

Information about selected participants: **July 1, 2023**

REGISTRATION DESK

Registration desk working hours:

October 6, 2023: 08.00 – 20.00 October 7, 2023: 08.00 – 20.00 October 8, 2023: 08.00 – 20.00

All congress information will be available at the Registration Desk located in front of the Hall of Heroes

PROJECT CORNER

For participants who wish to communicate about their projects to the CoMBoS2 audience. Please, sign up for this activity when registering for CoMBoS2.

ATTENDANCE CERTIFICATE

Participants will receive their Attendance Certificates at the Registration Desk on the last day of their attendance



Scientific Program

October 6, 2023

08.00 - 08.30 Registration



MolBioS STUDENT SECTION

University of Belgrade-Faculty of Phylology, Hall of Heroes Studentski trg 3, Belgrade

Chairs: Svetlana Dinić, Natalija Miladinović

08.30 - 08.50	Opening Remarks Natalija Miškov, Natalija Miladinović, Milena Stepić, Todor Cvetanović, Nemanja Kutlešić
08.50 - 09.10	Liver regeneration and the use of organoids in regenerative biology Emilija Jovanović , alumnus of the MolBioS Student Section (University of Cambridge, UK)
09.10 - 10.30	Oral presentations of student research in the fields of Molecular Biology and Biomedicine Selected speakers from the Faculties of Chemistry, Pharmacy and Medicine

10.40 - 12.45 Student Poster Session with refreshments

12.45 - 13.00 Closing remarks



WORKSHOPS

Registration for all workshops 08.00-09.00
All workshops will be held for up to 20 scientists from 09.00-13.00

Venue:

University of Belgrade-Faculty of Biology, Studentski trg 3, Belgrade

Institute for Physiology and Biochemistry "Ivan Djaja", Library

iPSCs as a tool for modelling disease and discovering molecular mechanisms of neurodevelopmental disorders



Organized by STREAMLINE Project

(Funded by the European Union, programme HORIZON-WIDERA-2021-ACCESS-02-Twinning, Grant No.101060201)

Institute for Physiology and Biochemistry "Ivan Djaja", Room 63

Targeted RNA-sequencing using Illumina platform and upstream analysis



Organized by FERROREG Project

(Funded by the Science Fund of the Republic of Serbia, program IDEAS, Grant No. 7753406)

Institute for Zoology, Library

Nanopore Sequencing Workshop



Organized by READ-DM1 Project

(Funded by the Science Fund of the Republic of Serbia, program IDEAS, Grant No. 7754217)

Venue:

University of Belgrade, Institute of Molecular Genetics and Genetic Engineering (IMGGE) Vojvode Stepe 444a, Belgrade

Library

aguancing and the

Next Generation Sequencing and the Portable Molecular Biology Laboratory in Pharmacogenomics



Organized by PharmGenHUB Project

(Funded by the European Union, programme HORIZON-WIDERA-2021-ACCESS-02-Twinning, Grant No. 101059870)

BGI next generation sequencing technology

Center for Genome Sequencing and Bioinformatics



Organized by Center for Genome Sequencing and Bioinformatics, IMGGE

Main program

University of Belgrade-Faculty of Philology, Hall of Heroes Studentski trg 3, Belgrade

12.00 - 13.45 Registration

OPENING CEREMONY

Program announcer: Anja Tolić
Chairs: Dušanka Savić-Pavićević, Melita Vidaković

14.00 - 14.30 Welcome Speeches

14.30 - 14.50 Homage to Professor Ana Savić
Snežana Kojić, Gordana Matić

14.50 - 15.10 Homage to Professor Vladimir Glišin
Branka Vasiljević, Ljubiša Topisirović

Session OPENING LECTURES

Chairs: Gordana Matić, Goran Brajušković

15.30 - 16.00	miRNA regulation of the neurodevelopment of human iPSC, and what this may mean for neuropsychiatric disorders Adrian Harwood (UK)
16.00 - 16.15	MolBioS Award Ceremony Goran Brajušković
16:15 - 16.45	MolBioS Award Lecture: The story of the SOX genes: for better or for worse Milena Stevanović (Serbia)
17.00 - 17.15	Group Photo Session
17.30 - 18.30	Student Poster Session and Project Corner

WELCOME COCKTAIL WITH MUSIC PROGRAM

18.30 - 20.30

Hotel "Palas", Topličin venac 23, Belgrade



08.00 - 08.30 Registration

Session 1: MOLECULAR BIOMEDICINE

Chairs: Milena Stevanović, Aleksandra Stanković, Jovan Pešović

08.3	30 - 08.50	Antisense therapies for neurogenetic disorders Snežana Maljević (Australia)
08.5	50 - 09.10	Graphene quantum dots protect SH-SY5Y neuronal cells from SNP-induced apoptotic death Biljana Ristić (Serbia)
09.	10 - 09.30	Genetic specificities of muscular dystrophies in Serbia Stojan Perić (Serbia)
09.3	30 - 09.40	Discussion
09.4	40 - 09.50	22q11.2 Deletion Syndrome as a tool for modelling and research of neurodevelopmental disorders Andrijana Lazić (Serbia)
09.5	50 - 10.00	Long-term three-dimensional glioblastoma cell culture model for drug response studies Miodrag Dragoj (Serbia)
10.0	00 - 10.10	Neurofilament as a biomarker of response to genetically designed therapies for spinal muscular atrophy Miloš Brkušanin (Serbia)
10.	10 - 10.20	Discussion
10.2	20 - 11.30	Coffee Break with Poster Session 1 and Project corner
	С	hairs: Sonja Pavlović, Dušan Keckarević, Gabriele Stocco
11.3	30 - 11.50	Pharmacogenomic and pharmacokinetic approaches for precision therapy in pediatric patients Gabriele Stocco (Italy)
11.5	50 - 12.10	Precision medicine and COVID-19: importance of host genome profiling Branka Zukić (Serbia)
12.	10 - 12.20	Discussion

12.20 - 12.30	Non-coding RNAs as potential biomarkers for gestational diabetes Zorana Dobrijević (Serbia)
12.30 - 12.40	Integrative and functional multi-omics approach for untangling the genetic background of congenital anomalies of the kidney and urinary tract Ivan Jovanović (Serbia)
12.40 - 12.50	Rare metabolic diseases in the genomics era Maja Stojiljković (Serbia)
12.50 - 13.00	Molecular diagnosis and treatment of diffuse gliomas in Serbia Tatjana Mitrović (Serbia)
13.00 - 13.10	Discussion
13.10 - 13.25	Flash presentations (3 x 5 min)

LUNCH

13.00 - 14.30 Hotel "Palas", Topličin venac 23, Belgrade

Session 2: MOLECULAR BIOTECHNOLOGY

Session dedicated to the memory of Professor Đorđe Fira (Full Professor of Biochemistry at the University of Belgrade-Faculty of Biology)

Chairs: Branko Jovčić, Jelena Lozo, Nemanja Mirković

14.30 - 14.50	Bacteriophage-based technology: back to the past to move forward into the future Mariagrazia Di Luca (Italy)
14.50 - 15.10	Development of biosimilars and transfer of know-how to industry: opportunities and challenges Nataša Skoko (Italy)
15.10 - 15.30	Microbial trends in sustainable biotechnology Ivica Dimkić (Serbia)
15.30 - 15.40	Discussion
15.40 - 15.50	Bacterial nanocellulose - new beginning for end-of-life plastics Sanja Jeremić (Serbia)
15.50 - 16.00	The role of the gut bacteria during host aging Miroslav Dinić (Serbia)

16.00 - 16.10	Repertoire and abundance of type III secretion system effectors shape the virulence capacity of <i>Pseudomonas syringae</i> pathogenic on sugar beet Ivan Nikolić (Serbia)
16.10 - 16.20	Discussion
16.20 - 17.30	Coffee Break with Poster Session 2 and Project corner
	Chairs: Goran Vukotić, Ivica Dimkić, Sanja Jeremić
17.30 - 17.50	Antimicrobial peptides as promising alternative for treatment of pathogens Nemanja Mirković (Serbia)
17.50 - 18.10	Bacteria - plant interplay enables different responses to complex environmental conditions Jelena Lozo (Serbia)
18.10 - 18.30	Microbes and microbial enzymes for degradation of (bio)plastics Jasmina Nikodinović Runić (Serbia)
18.30 - 18.40	Discussion
18.40 - 18.50	Drying without dying: Revealing the role of late embryogenesis abundant proteins during desiccation in <i>Ramonda serbica</i> Marija Vidović (Serbia)
18.50 - 19.00	BIOCTA: Novel approach to biocontrol of recently described plant tumorogenic <i>Rhizobiums</i> pp. using autochthonous microbial solutions Aleksandra Jelušić (Serbia)
19.00 - 19.10	Discussion
19.10 - 19.25	Flash presentations (3 x 5 min)
19.25 - 20.30	Poster Sessions 1 and 2, Project Corner



08.00 - 08.30 Registration

Session 3: MOLECULAR MECHANISMS OF CELL FUNCTIONS

Chairs: **Silvana Andrić, Melita Vidaković, Ana Đorđević**

	Chails. Silvana Ananc, Meilia Vidakovic, Ana Doidevic
08.30 - 08.50	Pronounced sequence preference of mammalian TET enzymes directs DNA demethylation Thomasz Jurkowski (UK)
08.50 - 09.10	The circadian system - Coordinating physiology and behavior Urs Albrecht (Switzerland)
09.10 - 09.30	Gut microbiome as mediator of chemical exposome - host metabolism crosstalk Matej Orešič (Sweden)
09.30 - 09.40	Discussion
09.40 - 09.50	Activation of coagulation factors and prothrombotic properties of endothelium in hematological malignancies Vladan Čokić (Serbia)
09.50 - 10.00	DNA methylation in age prediction: a forensic perspective of epigenetic clock Milica Keckarević-Marković (Serbia)
10.00 - 10.10	Understanding molecular pathways of adipocyte differentiation: closer insight into lipoma story Sanja Stojanović (Serbia)
10.10 - 10.20	Discussion
10.20 - 11.30	Coffee Break with Poster Session 3 and Project corner
C	Chairs: Gordana Matić, Milena Milutinović, Maja Milošević
11.30 - 11.45	The cost of circadian clock disorder on testicular function Tatjana Kostić (Serbia)
11.45 - 12.00	Molecular mechanisms of free fatty acid receptor 2-mediated effects on gut innate lymphoid cells Dorđe Miljković (Serbia)

12.00 - 12.10	Venoms - the source of drugs with anticancer potential Danijela Nikodijević (Serbia)
12.10 - 12.20	Discussion
12.20 - 12.35	Epigenetic editing as a potential therapeutic tool for the treatment of noncommunicable diseases Aleksandra Uskoković (Serbia)
12.35 - 12.50	Integration of Metabolomics and Transcriptomics Data Reveal the Molecular Background of the Iridoid Diversity within the Genus Nepeta (fam. Lamiaceae) Danijela Mišić (Serbia)
12.50 - 13.00	Purinergic signaling in the central nervous system in health and disease: focus on ectonucleotidases Ivana Grković (Serbia)
13.00 - 13.10	Discussion
13.10 - 13.25	Flash presentations (3 x 5 min)

LUNCH

13.00 - 14.30 Hotel "Palas", Topličin venac 23, Belgrade

SPONSOR'S HOUR

(15.00 - 16.00)

Session 4: CLOSING LECTURES

Chairs: Milena Stevanović, Tatjana Kostić

16.00 - 16.30	Studying molecular biology of cells and monitoring cell health with unlimited DNA sequencing Radoje Drmanac (USA)
16.30 - 17.00	RNA detection using nanopores: From isoform analysis to disease diagnostics Ulrich Keyser (UK)
17.00 - 18.00	Coffee Break with Poster Session 3 and Project corner



ROUND TABLE

How to spin research into societally effective innovations?

18.00 - 19.00

Moderator Ivana Strahinić (Serbia)

CLOSING CEREMONY

Program announcer: **Anja Tolić** Chairs: **Ana Đorđević**, **Svetlana Dinić**

19.00 - 19.15	Best poster Awards
19.15 - 19.30	Awarding of appreciation certificates
19 30 - 20 00	Closing Remarks



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molbios@bio.bg.ac.rs