



ISABS CONFERENCE on Forensic and Anthropological Genetics and Mayo Clinic Lectures in Individualized Medicine

Hotel Dubrovnik Palace
Dubrovnik, June 22-27, 2022



With the participation of Nobel Laureates



Association of



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PROGRAM

www.isabs.net

Registration Desk Hours

Hotel Dubrovnik Palace

Tuesday, June 21	2:00 p.m. – 8:00 p.m.
Wednesday, June 22	8:00 a.m. – 4:00 p.m.
Thursday, June 23	8:00 a.m. – 5:00 p.m.
Friday, June 24	7:30 a.m. – 5:00 p.m.
Saturday, June 25	7:30 a.m. – 5:30 p.m.
Sunday, June 26	7:30 a.m. – 5:00 p.m.
Monday, June 27	7:30 a.m. – 5:00 p.m.

Exhibit Hall Hours

Hotel Dubrovnik Palace

Wednesday, June 22	8:30 a.m. – 5:00 p.m.
Thursday, June 23	8:30 a.m. – 5:00 p.m.
Friday, June 24	8:30 a.m. – 5:00 p.m.
Saturday, June 25	8:30 a.m. – 5:00 p.m.
Sunday, June 26	8:30 a.m. – 5:00 p.m.
Monday, June 27	8:30 a.m. – 5:00 p.m.

English is the official language of the ISABS and its meetings; neither oral nor written translations will be provided. Although precautions are taken to prevent schedule changes, speakers and program schedules may change due to unforeseen circumstances.

As a courtesy to others, meeting attendees are asked to silence their cell phones when attending the sessions.

Tuesday, June 21

4:00 p.m. - 7:00 p.m. **Satellite Joint Event HDHG* & HDPPM****
(8th Croatian Human Genetics Conference & 1st Croatian Personalized and Precision Medicine Conference)

Wednesday, June 22

9:00 a.m.-4:00 p.m. Mayo Clinic Short Course on Epigenomics

9:00 a.m.-12:00 p.m.	Session 1 Fundamentals	Moderator: Keith D. Robertson	Mayo Clinic, Rochester, MN, USA	
9:00 a.m.-9:30 a.m.		Keith D. Robertson	Mayo Clinic, Rochester, MN, USA	Fundamental mechanisms underlying the regulation of gene transcription
9:30 a.m.-10:00 a.m.		Julie M. Cunningham	Mayo Clinic, Rochester, MN, USA	Molecular basis of epigenetic control: Epigenetic regulation by post-synthetic DNA and RNA modifications
10:00 a.m.-10:30 a.m.		Zong Wei	Mayo Clinic, Rochester, MN, USA	Molecular basis of epigenetic control: Epigenetic regulation through histone proteins and chromatin modifying complexes
10:30 a.m.-11:00 a.m.		Haojie Huang	Mayo Clinic, Rochester, MN, USA	Molecular basis of epigenetic control: Epigenetic regulation by the RNA world
11:00 a.m.-11:30 a.m.		Steven A. Johnsen	Robert Bosch Center for Tumor Diseases, Stuttgart, Germany	Molecular basis of epigenetic control: Chromatin architecture and nuclear organization
11:30 a.m.-12:00 p.m.		Tamas Ordog	Mayo Clinic, Rochester, MN, USA	Epigenetic states and inheritance: Epigenetic inheritance and environmental epigenetics

12:00 p.m.-1:00 p.m. Break for Lunch + Networking

1:00 p.m.-4:00 p.m.	Session 2 Applications	Moderator: Keith D. Robertson	Mayo Clinic, Rochester, MN, USA	
1:00 p.m.-1:30 p.m.		Alexandre Gaspar Maia	Mayo Clinic, Rochester, MN, USA	Epigenetic states and inheritance: Cellular reprogramming
1:30 p.m.-2:00 p.m.		Tamas Ordog	Mayo Clinic, Rochester, MN, USA	Epigenetics in the lab: Epigenomic methodologies
2:00 p.m.-2:30 p.m.		Moritz Binder	Mayo Clinic, Rochester, MN, USA	Epigenetics in the lab: Bioinformatic analysis of epigenomic data
2:30 p.m.-3:00 p.m.		Eva Morava-Kozicz	Mayo Clinic, Rochester, MN, USA	Epigenomics in medicine: Epigenetic syndromes
3:00 p.m.-3:30 p.m.		Mrinal Patnaik	Mayo Clinic, Rochester, MN, USA	Epigenomics in medicine: Epigenetic basis of human disease—Cancer
3:30 p.m.-4:00 p.m.		Veronique Belzil	Mayo Clinic, Jacksonville, FL, USA	Epigenomics in medicine: Epigenetic basis of human disease—neurodegenerative diseases

12:00 p.m.-4:00 p.m. Interdisciplinary Session of American Academy of Forensic Sciences and ISABS 2022

4:00 p.m.-9:30 p.m. Social event (TBA)

*Croatian Society of Human Genetics

**Croatian Society for Precision (Personalized) Medicine

Thursday, June 23

9:00 a.m.-10:30 a.m. Opening Ceremony

10:30 a.m.-12:50 p.m.	Opening Session Opening Plenaries	Moderator: Dragan Primorac	ISABS &*	
10:30 a.m.-11:05 a.m.		TBA		A vision of translational cancer research
11:05 a.m.-11:40 a.m.		Julie G. Allickson	Mayo Clinic, Rochester, MN, USA	Regenerative medicine
11:40 a.m.-12:15 p.m.		Mark Stoneking	Max Planck Institute for evolutionary Anthropology, Leipzig, Germany	Impact of OMICS on anthropology
12:15 p.m.-12:50 p.m.		Angel Carracedo	University Santiago de Compostela, Santiago de Compostela, Spain	Impact of OMICS on forensics

12:50 p.m.-2:00 p.m. Break for Lunch + Networking

2:00 p.m.-5:05 p.m.	Oral Session 1: Integrated; Genetic Variation and its Implications for Human Disease, Forensics and Anthropology	Moderator: Stanimir Vuk-Pavlović	Mayo Clinic, Rochester, MN, USA	
2:00 p.m.-2:25 p.m.	Special Emphasis Lecture	Manolis Kellis	Massachusetts Institute of Technology, The Broad Institute, Cambridge, MA, USA	Understanding human disease through large-scale data
2:25 p.m.-2:50 p.m.		Yi Xing	University of Pennsylvania, Philadelphia, PA, USA	Predicting noncoding variants
2:50 p.m.-3:15 p.m.		Struan F.A. Grant	Children's Hospital of Philadelphia Research Institute, Philadelphia, PA, USA	Genetic variation and human disease

3:25 p.m.-3:40 p.m. Break

3:40 p.m.-4:05 p.m.		Liewei Wang	Mayo Clinic, Rochester, MN, USA	Artificial intelligence in pharmacogenomics
4:05 p.m.-4:30 p.m.		Andreas Tillmar	University of Linköping, Linköping, Sweden	Inferring relationships from whole genome sequences and forensic usage
4:30 p.m.-4:55 p.m.		Janet Kelso	Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany	Functional inference of Neanderthal introgression
4:55 p.m.-5:05 p.m.	Short talk selected from submitted abstracts	TBA		

5:05 p.m.-10:00 p.m. Conference social program for invited speakers and guests (by invitation)

5:05 p.m.-7:30 p.m. Conference social program for registered attendees and guests (by registration)

* St. Catherine Specialty Hospital, Zabok, Croatia; Universities of Split, Osijek and Rijeka, Croatia;
Eberly College of Science, The Pennsylvania State University, University Park, State College, PA, USA; The Henry C. Lee College of Criminal Justice
and Forensic Sciences, University of New Haven, West Haven, CT, USA; Regiomed Kliniken, Coburg, Germany

Friday, June 24

8:30 a.m.-11:35 a.m.	Oral Session 2: Integrated; High-definition OMICS	Moderator: Tamas Kozicz	Mayo Clinic, Rochester, MN, USA	
8:30 a.m.-8:55 a.m.	Special Emphasis Lecture	TBA		
8:55 a.m.-9:20 a.m.		Ulrika Marklund	Karolinska Institute, Solna, Sweden	Single-cell analysis of enteric neuronal development
9:20 a.m.-9:45 a.m.		Elias Puchner	University of Minnesota, Minneapolis, MN, USA	Four-dimensional nucleomics
9:45 a.m.-9:55 a.m.	Short talk selected from submitted abstracts	TBA		
9:55 a.m.-10:10 a.m. Break				
10:10 a.m.-10:35 a.m.		Alexandre Gaspar Maia	Mayo Clinic, Rochester, MN, USA	Single-cell omics & macro-H2A & cancer
10:35 a.m.-11:00 a.m.		Eskeatnaf Mulugeta	Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands	Single-cell omics for forensic usage
11:00 a.m.-11:25 a.m.		Tomislav Maričić	Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany	Genome editing, stem cells and Neanderthals
11:25 a.m.-11:35 a.m.	Short talk selected from submitted abstracts	TBA		
11:35 a.m.-12:30 p.m. Break for Lunch + Networking				
12:30 p.m.-2:45 p.m.	Nobel Laureate Session	Moderator: Dragan Primorac	ISABS &*	
12:30 p.m.-1:15 p.m.		Aaron Ciechanover	Technion – Israel Institute of Technology, Haifa, Israel	The road for cure and prevention of a pandemic is strewn with bioethical issues: lessons from the COVID-19 pandemic
1:15 p.m.-2:00 p.m.		Sir Richard John Roberts	Northeastern University, Boston, MA, USA & New England Biolabs, Ipswich, MA, USA	TBA
2:00 p.m.-2:45 p.m.		Thomas Südhof	University of Stanford, Palo Alto, CA, USA	The cell biology of synapse formation, ApoE, and Alzheimer's disease
2:45 p.m.-3:00 p.m. Break				

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Friday, June 24

3:00 p.m.-3:35 p.m.	Special plenary session	Moderator: Tamas Ordog	Mayo Clinic, Rochester, MN, USA	
3:00 p.m.-3:35 p.m.		Konstantinos N. Lazaridis	Mayo Clinic Jacksonville, FL, USA	Status and future of individualized medicine
3:35 p.m.-4:50 p.m.		Moderator: Manolis Kellis	Massachusetts Institute of Technology & The Broad Institute, Cambridge, MA, USA	
3:35 p.m.-4:00 p.m.		Ian Maze	Icahn School of Medicine at Mount Sinai, New York, NY, USA	Epigenetics of addiction
4:00 p.m.-4:25 p.m.		Veronique Belzil	Mayo Clinic, Jacksonville, FL, USA	Diagnosis and treatment of amyotrophic lateral sclerosis (ALS) and frontotemporal dementia (FTD)
4:25 p.m.-4:50 p.m.		Mark Frye	Mayo Clinic, Rochester, MN, USA	Bipolar disease
4:50 p.m.-8:00 p.m. Free time				
6:00 p.m.- 7.15 p.m. Nobel Spirit - televised session with Nobel Laureates; Croatian Radiotelevision (by invitation)				
8:00 p.m.-11:55 p.m. Conference Banquet and Award Ceremony				

Saturday, June 25

8:30 a.m.-11:45 a.m.	Oral session 3: Anthropological genetics	Moderator: Mark Stoneking	Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany	
8:30 a.m.-8:55 a.m.		Matthias Meyer	Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany	Ancient DNA from sediments
8:55 a.m.-9:20 a.m.		Mateja Hajdinjak	The Francis Crick Institute, London, UK	Neanderthal DNA and Neanderthal ancestry
9:20 a.m.-9:45 a.m.		Joachim Burger	University of Mainz, Mainz, Germany	Selection of lactase persistency
9:45 a.m.-9:55 a.m.	Short talk selected from submitted abstracts	TBA		
9:55 a.m.-10:10 a.m. Break				
10:10 a.m.-10:35 a.m.		Mattias Jakobsson	University of Uppsala, Uppsala, Sweden	TBA
10:35 a.m.-11:00 a.m.		Wolfgang Haak	Max Planck Institute for Science of Human History, Jena, Germany	TBA
11:00 a.m.-11:25 a.m.		Mait Metspalu	University of Tartu and Estonian Biocenter, Tartu, Estonia	Latest research in using human genomics for reconstructing human history
11:25 a.m.-11:35 a.m.	Short talk selected from submitted abstracts	TBA		
11:35 a.m.-1:30 p.m. IRI 2 Workshop: Osteoarthritis: A personalized approach to diagnosis and treatment (All partners from IRI 2 Workshop)				
11:35 a.m.-1:30 p.m.	Break for Lunch+Networking+Poster Session 1: Anthropological Genetics	Moderator: Mattias Jakobsson	University of Uppsala, Uppsala, Sweden	
1:30 p.m.-5:25 p.m.	Oral session 4: Individualized Medicine; Omics of Common and Rare Diseases	Moderator: Natalia Tretyakova	University of Minnesota, Minneapolis, MN, USA	
1:30 p.m.-1:55 p.m.	Special Emphasis Lecture	Henry A. Erlich	Children's Hospital Oakland Research Institute, Oakland, CA, USA	Non-invasive prenatal testing for the beta-hemoglobinopathies using next generation sequencing and probe capture
1:55 p.m.-2:20 p.m.		Gordan Lauc	University of Zagreb & Genos, Ltd., Zagreb, Croatia	Mechanism of disease: The human N-glycome
2:20 p.m.-2:45 p.m.		Eva Morava-Kozicz	Mayo Clinic, Rochester, MN, USA	Genetic diseases of glycosylation
2:45 p.m.-3:10 p.m.		William A. Faubion	Mayo Clinic, Rochester, MN, USA	Inflammatory bowel disease (IBD) epigenomics
3:10 p.m.-3:25 p.m. Break				

Saturday, June 25

3:25 p.m.-3:50 p.m.	Purna Kashyap	Center for Autoimmunity and Inflammation, Center for Cancer Immunotherapy, San Diego, CA, USA	Integrating the microbiome with metabolome, transcriptome and epigenome in inflammatory bowel disease (IBD)
3:50 p.m.-4:15 p.m.	Aleksey Matveyenko	Mayo Clinic, Rochester, MN, USA	Circadian rhythmicity and diabetes
4:15 p.m.-4:40 p.m.	Zong Wei	Mayo Clinic Arizona, AZ, USA	Epigenetics of islet dysfunction in diabetes
4:40 p.m.-5:05 p.m.	Dragan Primorac	ISABS & *	Autologous stem cell therapy in knee osteoarthritis
5:05 p.m.-5:15 p.m.	TBA		
5:15 p.m.-5:25 p.m.	TBA		
5:25 p.m.-8:00 p.m. Free time			
8:00 p.m.-9:00 p.m.	Evening Lecture 1 Special Plenary Lecture	Moderator: Dragan Primorac	ISABS & *
8:00 p.m.-9:00 p.m.	Garry Kasparov		Deep thinking: Where machine intelligence ends and human creativity begins

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Sunday, June 26

8:30 a.m.-11:35 a.m.	Oral session 5: Forensic Genetics	Moderator: Angel Carracedo	University Santiago de Compostela, Santiago de Compostela, Spain	
8:30 a.m.-8:55 a.m.		Walther Parson	Medical University of Innsbruck, Innsbruck, Austria	Forensic genetics back in time
8:55 a.m.-9:20 a.m.		Mitchell Holland	Pennsylvania State University, State College, PA, USA	DNA identification of Croatian holy nun
9:20 a.m.-9:45 a.m.		Charla Marshall	Armed Forces DNA Identification Laboratory, Dover, DE, USA	Capture sequencing for forensics usage
9:45 a.m.-9:55 a.m.	Short talk selected from submitted abstracts	TBA		
9:55 a.m.-10:10 a.m. Break				
10:10 a.m.-10:35 a.m.		James Landers	University of Virginia, Charlottesville, VA, USA	New forensic use of microfluidics
10:35 a.m.-11:00 a.m.		Mechthild Prinz	John Jay College of Criminal Justice, New York, NY, USA	After 20 years: DNA identification of 9/11 victims
11:00 a.m.-11:25 a.m.		Jack Ballantyne	University of Central Florida and National Center of Forensic Science, Orlando, FL, USA	RNA sequencing in forensics
11:25 a.m.-11:35 a.m.	Short talk selected from submitted abstracts	TBA		
11:35 a.m.-1:30 p.m.	Joint Session: ISABS, St. Catherine Hospital, Regiomed Kliniken, Germany, University of Split, Croatia (By Invitation)			
11:35 a.m.-1:30 p.m.	Break for Lunch+networking+Poster Session 2: Forensic Genetics	Moderator: TBA		
1:30 p.m.-4:50 p.m.	Oral session 6: Individualized Medicine; Cancer and Cancer Precursor "Omics"	Moderator: TBA		
1:30 p.m.-1:55 p.m.	Special Emphasis Lecture	TBA		
1:55 p.m.-2:20 p.m.		Natalia Tretyakova	University of Minnesota, Minneapolis, MN, USA	Smoking and epigenomics
2:20 p.m.-2:45 p.m.		Haojie Huang	Mayo Clinic, Rochester, MN, USA	Prostate cancer
2:45 p.m.-3:10 p.m.		Keith D. Robertson	Mayo Clinic, Rochester, MN, USA	Epigenetics of renal cell carcinoma
3:10 p.m.-3:25 p.m. Break				

Sunday, June 26

3:25 p.m.-3:50 p.m.	Zhenkun Lou	Mayo Clinic, Rochester, Minnesota, USA	Cancer immunology and DNA damage response
3:50 p.m.-4:15 p.m.	Steven A. Johnsen	Robert Bosch Center for Tumor Diseases, Stuttgart, Germany	Epigenomics of pancreatic cancer
4:15 p.m.-4:40 p.m.	John A. Copland	Mayo Clinic, Jacksonville, FL, USA	ATC epigenomics
4:40 p.m.-4:50 p.m.	Short talk selected from submitted abstracts	TBA	
4:50 p.m.-8:00 p.m. Free time			
8:00 p.m.-9:00 p.m.	Evening Lecture 2 Special Plenary Lecture	Moderator: Manfred Kayser	Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands
8:00 p.m.-9:00 p.m.		Greger Larson	Oxford University, Oxford, UK Of pigs and dogs and humans

Monday, June 27

8:30 a.m.-5:00 p.m. Anthropology and global health in the times of crisis

8:30 a.m.-11:35 a.m.	Oral session 7: Integrated; Interdisciplinary Applications of Epigenomics	Moderator: Eva Morava-Kozicz	Mayo Clinic, Rochester, MN, USA	
8:30 a.m.-8:55 a.m.		Vijay Shah	Mayo Clinic, Rochester, MN, USA	Super-enhancers and alcoholic hepatitis
8:55 a.m.-9:20 a.m.		TBA		
9:20 a.m.-9:45 a.m.		Tamas Ordog	Mayo Clinic, Rochester, MN, USA	Super-enhancer-associated heterochromatin offers a one-two-punch method to manipulate cell fates
9:45 a.m.-9:55 a.m.	Short talk selected from submitted abstracts	TBA		
9:55 a.m.-10:10 a.m. Break				
10:10 a.m.-10:35 a.m.		Weibo Luo	University of Texas Southwestern Medical Center, Dallas, TX, USA	HIFs in cancer progression
10:35 a.m.-11:00 a.m.		Conny Mulligan	University of Florida, Gainesville, FL, USA	Epigenetics of stress
11:00 a.m.-11:25 a.m.		Athina Vidaki	Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands	Epigenetic fingerprinting
11:25 a.m.-11:35 a.m.	Short talk selected from submitted abstracts	TBA		
11:35 a.m.-1:30 p.m.	Break for Lunch + Networking; Poster Session 3: Individualized Medicine	Moderator: Veronique Belzil	Mayo Clinic, Jacksonville, FL, USA	
1:30 p.m.-2:20 p.m.	Oral session 8: Integrated; COVID-19 and the Genetics of Pandemics	Moderator: Manfred Kayser	Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands	
1:30 p.m.-1:55 p.m.		Johannes Krause	Max Planck Institute for Science of Human History, Jena, Germany	Ancient DNA and infectious disease
1:55 p.m.-2:20 p.m.		Anne Stone	Arizona State University, Tempe, AZ, USA	Ancient DNA, tuberculosis and leprosy
2:35 p.m.-3:00 p.m.		Antti Sajantila	University of Helsinki, Helsinki, Finland	Genetic ancestry, viruses and forensics
3:00 p.m.-3:10 p.m.	Short talk selected from submitted abstracts	TBA		
3:10 p.m.-3:25 p.m. Break				

Monday, June 27

3:25 p.m.-3:50 p.m.	Hugo Zeberg	Karolinska Institute, Solna, Sweden	COVID-19 and Neanderthals
3:50 p.m.-4:15 p.m.	Manel Esteller	Josep Carreras Leukaemia Research Institute (IJC), Catalonia, Spain; Centro de Investigación Biomédica en Red de Cancer (CIBERONC), Spain; Institutio Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Catalonia, Spain; School of Medicine and Health Sciences, University of Barcelona (UB), Catalonia, Spain	Epigenomics & COVID-19
4:15 p.m.-4:40 p.m.	Mrinal Patnaik	Mayo Clinic Rochester, MN, USA	CHIP & COVID-19
4:40 p.m.-4:50 p.m.	Short talk selected from submitted abstracts	TBA	
4:50 p.m.-5:00 p.m.	Closing Remarks	Moderator: Dragan Primorac	ISABS & *

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12th

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