

BIT23 Program

Thursday, June 29 th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń; COK Lecture Hall	
12:00 - 13:15	Registration
12:00 - 13:15	Lunch (included in registration fee)
13:25 - 13:30	Conference opening / Welcome
13:30 - 15:15	Session I
13:30 - 14:15	Opening lecture: Marcin Woźniak, Collegium Medicum in Bydgoszcz Nicolaus Copernicus University, Bydgoszcz, Poland "Introduction to forensic genetics and genomics"
14:15 - 14:45	Andrzej Polanski, Silesian University of Technology, Gliwice, Poland "Propagation of weakly advantageous somatic mutations in tumor growth"
14:45 - 15:15	Joanna Polanska, Silesian University of Technology, Gliwice, Poland "CIRCA: COVID-19 screening supporting system as an example of the ML-based classification system for heterogeneous dataset"
15:15 - 15:45	Coffee break
15:45 - 17:15	Session II
15:45 - 16:15	Paweł Łabaj, Małopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland "Soil Microbiome Analysis Forensic Tool"
16:15 - 16:45	Michał Kowalski, Małopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland "O15 just called and wants its technology back - what metagenomics can gain from techniques which are not trendy anymore"
16:45 - 17:15	Marcin Gołębiowski, Nicolaus Copernicus University in Toruń, Poland "R pipeline for analysis of metagenomic/metatranscriptomic amplicon reads"
17:20 - 17:30	Conference PHOTO at entrance to the Institute of Physics
17:30 - 18:30	Poster session & Coffee break
18:30 - 19:00	Session III
18:30 - 19:00	Piotr Lukasiak, Poznan University of Technology, Poznan, Poland "Genomic Map of Poland – computational challenges, opportunities and chances"
19:15 - 19:45	PTBI Board of Directors meeting (for the Board only)
20:00 - 22:00	Conference social "pierogi & beer" gathering at Restaurant "Pierogarnia Stary Toruń", Most Pauliński 2 street. Note: food is included in the registration fee
Friday, June 30 th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń; COK Lecture Hall	
9:00 - 10:00	Session IV
9:00 - 9:20	Maciej Antczak, Poznan Technical University, Poland "On entanglements of structure elements in RNA 3D structures"
9:20 - 9:40	Aleksandra Cupriak, University of Warsaw, Warsaw, Poland "Predicting the formation of chromatin loops using genomic data"
9:40 - 10:00	Jan Brezovsky, Adam Mickiewicz University, Poznan; Poland and IIMCB Warsaw, Poland "Rational engineering of dynamical enzyme pockets for leashing gram-negative pathogenic bacteria"
10:00 - 10:15	Coffee break
10:15 - 12:20	Session V
10:15 - 11:00	Keynote talk: Adrian Roitberg, University of Florida, Gainesville, USA "TBA"
11:00 - 11:30	Jaroslav Meller, Cincinnati Children's Hospital Medical Center and University of Cincinnati, Cincinnati, US "Towards Multiomics Single Cell Resolution Atlas of ccRCC: Combining scRNA-seq and Spatial Transcriptomics to Identify and Characterize Cell Communities Connected to Cancer Progression"
11:30 - 12:00	Krzysztof Kuczera, University of Kansas, Kansas, USA "Modeling protein secondary structure formation: Comparing folding pathways of α -helices vs. β -hairpins"
12:00 - 12:20	Rafał Madaj, University of Warsaw, Warsaw, Poland "Side mutants of connexin proteins as a cause of non-functional gap junction beta channels - a structural bioinformatics approach"

Friday, June 30th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń; COK Lecture Hall	
12:30 - 14:30	Lunch (included in registration fee) Free sightseeing tour in English (13:00-14:30)
16:00 - 17:30	Session VI
16:00 - 16:30	Piotr Stomma, University of Bialystok, Bialystok, Poland "Interpretable generative model of correlation structure of multidimensional biological datasets"
16:30 - 17:00	Witold Rudnicki, University of Bialystok, Bialystok, Poland "Biomarkers discovery with machine learning and feature discovery"
17:00 - 17:30	Scott Tighe, Vermont Integrative Genomics Lab, Burlington Vermont, USA "Technical Considerations For Metagenomic Analysis of Low Biomass Environments" (<i>INTERNET LECTURE</i>)
17:30 - 18:15	Poster session & Coffee break
18:15 - 18:35	Session VII
18:15 - 18:35	Q&A session with Dr Michalina Pacholska, a former DeepMind intern and co-author of AlphaFold2 currently a Research Scientist at Cosimmetry
20:15 - 22:00	Not included in registration fee: Social common meal (no. of places limited) at "Spichrz" restaurant, Mostowa 1a street (old town). You pay your bill!!!
Saturday, July 1st Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń;	
8:30 - 10:45	Coffee break
8:30 - 10:30	Workshop I , COK computer room (PK-COK) Beata Niklas (part I), Katarzyna Walczewska-Szewc (part II), Nicolaus Copernicus University, Torun, Poland "Exploring the Beauty of Proteins: Insights through Visual Representation"
10:30 - 12:00	Workshop II , room 23 (ground floor) Aneta Lewkowicz, Martyna Czarnomska, Emilia Gruszczynska, University of Gdansk, Poland "Demystifying Crime Scene Investigation: Friction Ridge Analysis for Everyone"
12:00 - 13:00	Workshop III - Lecture with discussion , COK Lecture Hall Krzysztof Kuczera, University of Kansas, Kansas, USA "Scientific figures and their role in international communication in science"
13:00 - 13:30	STER lunch for registered workshop participants and doctoral candidates