BIT19 Program

Thursday, June 27th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń; COK Lecture Hall	
12:00 - 13:25	Registration
12:30 - 13:25	**Lunch (included in registration fee)**
13:25 - 13:30	Conference opening / Welcome
13:30 - 14:45	**Session I**
13:30 - 14:15	**Opening lecture:** **Maciej Wiznerowicz, Poznan University of Medical Sciences, University Hospital of Lord's Transfiguration, Medical Oncology; International Institute for Molecular Oncology, Poznan, Poland** **"Machine learning in multi-omics medicine"**
14:15 - 14:45	Jaroslaw Meller, Cincinnati Children`s Hospital Medical Center and University of Cincinnati, Cincinnati, US "Sig2Lead: Combining pharmacogenomics and cheminformatics towards enhanced lead compound identification"
14:45 - 15:00	**Coffee break**
15:00 - 16:20	**Session II**
15:00 - 15:30	Chris T.A. Evelo, Maastricht University, Maastricht , Netherlands "TBA"
15:30 - 16:00	Bartosz Wilczyński, Warsaw University, Warsaw , Poland "Supervised learning for identification of functional elements in the genome"
16:00 - 16:20	Krzysztof Pawlowski, Warsaw University of Life Sciences, Warsaw, Poland "Bioinformatics Discovery of Novel Surprising Pseudokinase Families"
16:20 - 18:00	**Poster session & Coffee break**
17:50 - 17:55	Conference PHOTO at entrance to the Institute of Physics
18:00 - 19:10	**Session III**
18:00 - 18:30	Tomasz Kościółek, University of California, San Diego, US "Massive-scale structure and function predictions of human gut microbiome proteins for metagenomic applications"
18:30 - 18:40	Ilona Grabowicz, Institute of Computer Science, Polish Academy of Sciences, Warsaw, Poland "Energy-dense diets leading to addiction affect brain gene expression and faecal microbiome content as well as microbiome gene activity"
18:40 - 19:10	Ugur Sezerman, Acibadem University, Istanbul, Turkey "Integration of omics data in a pathway related context to study complex disease aetiology"
19:15 - 19:45	PTBI Board of Directors meeting (for the Board only)
20:05 - 22:00	Conference Get together = grill party at the Faculty of Mathematics and Computer Science, **Chopina 12/18 st.** (food included)
Friday, June 28th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń; **COK Lecture Hall**	
9:00 - 10:15	**Session IV**
9:00 - 9:30	Frédéric Cazals, Inria Sophia Antipolis - Méditerranée Sophia Antipolis, France "Mining molecular flexibility: novel tools, novel insights"
9:30 - 10:15	Łukasz Kurgan, Virginia Commonwealth University, Richmond, US "Quality assessment for intrinsic disorder predictions"
10:15 - 10:45	**Coffee break**
10:45 - 12:30	**Session V**
10:45 - 11:30	Szymon Wąsik, Google Poland "ML@Google for Life Science"
11:30 - 12:00	Uwe Ohler, Max-Delbrück-Centrum für Molekulare Medizin, Berlin, Germany "Predictive models to decode gene regulatory regions"
12:00 - 12:30	Robert Nowak, Warsaw University of Technology, Warsaw, Poland "Feature engineering for biological data"
12:30 - 14:30	**Lunch (included in registration fee) Free sightseeing tour in English (13:00-14:30)**

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15:00 - 16:20	**Session VI**
15:00 - 15:30	Krzysztof Kuczera, University of Kansas, Kansas, US "Protonation influences helix free energy landscape and folding pathway"
15:30 - 15:50	Małgorzata Kotulska, Wrocław University of Science and Technology, Wroclaw, Poland "Can bioinformatical methods surpass advanced experimental methods in recognition of amyloid protein aggregates?"
15:50 - 16:20	Marek Piątek, Ardigen Co., Cracow, Poland "Optimizing clinical trials with AI-empowered biomarker discovery"
16:20 - 17:30	**Poster session & Coffee break**
17:30 - 19:15	**Session VII**
17:30 - 17:50	Rafał Adamczak, Nicolaus Copernicus University, Torun, Poland "Rpart - clustering algorithm for big macromolecular data sets"
17:50 - 18:10	Witold Rudnicki, University of Bialystok, Bialystok, Poland "Building robust machine learning models"
18:10 - 18:25	Pritha Ghosh, International Institute of Molecular and Cell Biology, Warsaw, Poland "SAXS data-driven modeling of RNA 3D structures"
18:25 - 18:40	Marcin Zabłocki, Poznan Technical University, Poznan, Poland "General quality assessment of 3D RNA structures using machine learning techniques"
18:40 - 18:55	Filip Stefaniak, International Institute of Molecular and Cell Biology, Warsaw, Poland "Combining Big Data and Machine Learning for predicting ribonucleic acid-ligand interactions"
18:55 - 19:15	Stanislaw Dunin-Horkawicz, Centre of New Technologies, Warsaw, Poland "Machine learning and simulation methods for deciphering sequence-structure relationships in proteins"
20:15 - 23:00	**Conference social "pierogi & a bit of something else" gathering at Restaurant "Pierogrania Stary Toruń", Most Pauliński 2 street. Old Town. Note: food not included in the registration fee**
Saturday, June 29th Venue: Institute of Physics UMK, Grudziadzka 5 street, Toruń;	
8:30 - 13:00	**Coffee break**
8:30 – 10:30	**Workshop I**, COK computer room (PK-COK) Jakub Rydzewski, Nicolaus Copernicus University, Torun, Poland "Enhanced Sampling Method for Ligand Unbinding"
10:45 – 13:00	**Workshop II** , COK computer room (PK-COK) Witold Rudnicki, University of Bialystok, ICM, UW, Aneta Polewka-Klin, University of Bialystok, Bialystok, Poland "Building robust machine learning models"
10:45 – 13:00	**Workshop III**, Computer room no II (PK2) Agnieszka S. Karczyńska, Agnieszka G. Lipska, University of Gdansk "The coarse-grained UNRES force field description and usage of the UNRES server in modeling of protein structure"