

BBCC2022  
Bioinformatics and Computational Biology Conference  
December 13-15, 2022  
*Online Conference*

## Program

### December 13th

Time (Central European Time)

11:30 *Opening of the Conference and Communications*

**12:00 Opening invited lecture**

**Francesca Ciccarelli**

**ML approaches to prioritise cancer drivers from genomic data**

12:50 Gianluca Santamaria

Single cell transcriptomic for studying lineage identities, relationships and cross-talks during cardiac development and disease

13:10 Riccardo Rossi

A combinatorial approach to refine markers signatures in diagnostics and single cell applications

**13:30 Break**

15:15 *Opening of the session and Communications*

15:30 Manoja Rajalakshmi Aravindakshan

Parameter estimation for the oral minimal model and parameter distinctions between obese and non-obese type 2 diabetes

15:50 Guy Cochrane

Global biodata resources: challenges to long-term sustainability of a crucial data infrastructure

**16:10 Break**

16:20 Nancy D'Arminio

Effects of the omicron variants on the interaction between Spike and human antibodies performed by a computational strategy

16:40 Amit Dubey

Modulating the catalytic activities of Monkeypox A42R protein through ultra-small gold and silver nanoclusters

**17:00 Invited lecture**

**Tommaso Biancalani**

**GNEprop deep learning screening for antibiotic discovery**

17:50 *Closure of the first day*

## December 14th

Time (Central European Time)

09:15 *Opening of the session and Communications*

09:20 Giulia Cesaro

Differential cellular communication analysis across multi-condition and multi-patient scRNA-seq data

09:40 Chiara Lauritano

Transcriptome sequencing of the diatom *Asterionellopsis glacialis* to evaluate possible biotechnological application

10:00 Laura Veschetti

Finding a Needle in a Haystack: Impact of Shotgun Metagenomics Sequencing Depth on Microbial Identification and Antimicrobial Resistance Genes Detection

**10:20 Invited Lecture**

**Anaïs Baudot**

**Multi-omics data integration methods for genetic diseases**

11:10 Break

11:20 Rahul Valiya Veetil

Transcription Factor HNF4A is Involved in Breast Cancer Recurrence

11:40 Sara Fumagalli

Skin microbiome in ageing: current issues and new opportunities from curated meta-analyses

12:00 Martina Lombardi

The metabolomic way for the screening of endometrial cancer

**12:20 Invited Lecture**

**Maria Klapa**

**Metabolomics in Systems Agro-Biotechnology**

13:10 Break

14:30 POSTER SESSION

16:30 *Closure of the second day*

## December 15th

Time (Central European Time)

09:15 *Opening of the session and Communications*

09:20 Giulia Babbi

Protein structural and functional features relate human variations to diseases

09:40 Massimo Bellato

An agent-based simulator for microbial communities' evolution

10:00 Camille Juigné

A method to identify target molecules and extract the corresponding graph of interactions in BioPAX

**10:20 Invited Lecture**

**Dominik Heider**

**AI meets omics data – examples, pitfalls, and solutions**

11:10 Break

11:20 Gabriella Sferra

A comparative *in silico* analysis of *Arabidopsis thaliana* and *Arabidopsis halleri* strategies of the roots for cadmium phytoremediation

11:40 Nikolas Dovrolis

Fibrosis as a common denominator; Co-expression analysis of a fibrosis-related, site-specific gene cluster

12:00 Tiziana Castrignanò

Brain de novo transcriptome assembly of a toad species showing polymorphic anti-predatory behavior

12:20 *Communications and closure of the Conference*