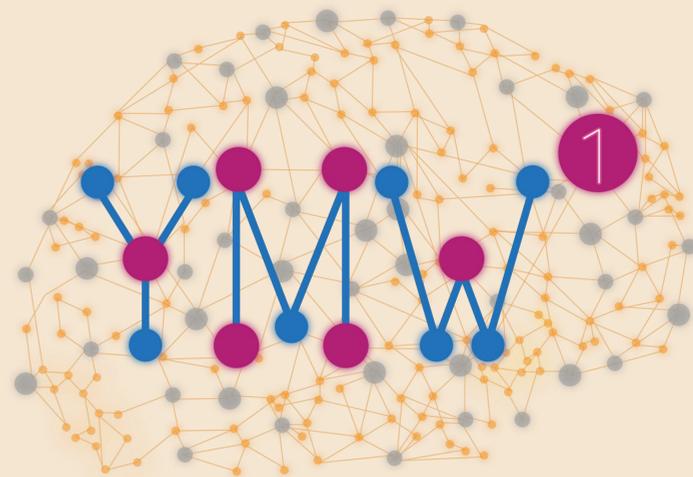


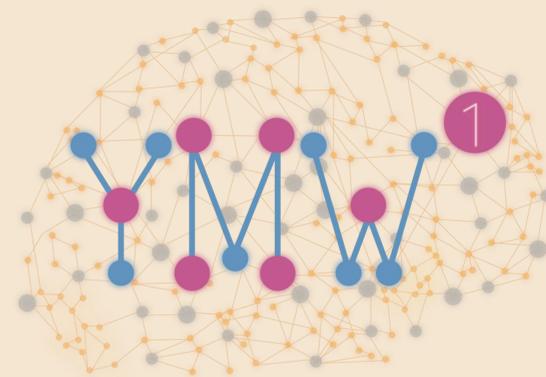
Young Minds at Work: Blending Biology and Bioinformatics

On-line workshop • 16th December 2022



Faculty

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Tramontano Enzo
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Uggeri Matteo
Veschetti Laura
Zani Alberto
Zannella Carla



Rational

The on-line workshop aims to integrate biology and bioinformatics disciplines, encourage, generate, and strengthen a collaborative network and meaningful interactions amongst young scientists that have different skills, promoting future projects and collaborations.

CONFERENCE CO-CHAIRS

Antonella Bugatti, University of Brescia, Italy
Francesca Caccuri, University of Brescia, Italy
Pasqualina D'Ursi, CNR-ITB, Italy
Paola Fossa, University of Genoa, Italy
Alessandro Orro, CNR-ITB, Italy

LOCAL ORGANIZERS

Matteo Gnocchi, CNR-ITB, Italy
John Hatton, CNR-ITB, Italy

SCIENTIFIC COMMITTEE

Ilaria Cherchi, Eustachio Cuscianna, Maria Milanesi, Alessandro Rondina, Matteo Uggeri, Laura Veschetti, Alberto Zani, Carla Zannella.

Scientific Program

08:50-09:00 Access and connection to web platform

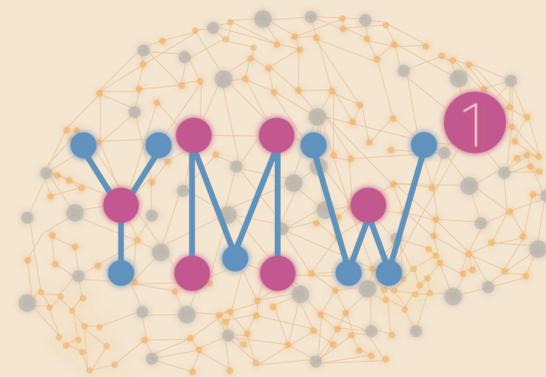
WELCOME ADDRESS

09.00-09.15

BITS President: **Raffaele Calogero**

SIV-ISV Vice-President: **Enzo Tramontano**

ITB-CNR Director: **Gianluca De Bellis**



INVITED SPEAKER:

Chairs: Eustachio Cuscianna, Mirko Treccani

09.15-09.45 **Eloise Mastrangelo**, *Institute of BioPhysics - National Research Council* - Unraveling virus replication processes to identify new therapeutic strategies

SESSION 1: Two years with SARS-CoV-2: insights into scientific development

Chairs: Alberto Zani, Maria Milanesi

09:45-10:00 **Irene Soffritti**, *Section of Microbiology, CIAS Research Center and LTTA, Department of Chemical and Pharmaceutical Sciences, University of Ferrara, Ferrara* - Oral microbiome dysbiosis is associated with symptoms severity and local immune/inflammatory response in COVID-19 patients: a cross-sectional study.

10:00-10:15 **Rosa Giugliano**, *Department of Experimental Medicine, University of Campania "Luigi Vanvitelli", Naples* - NGS Analysis of nasopharyngeal microbiota in SARS-CoV-2 positive patients during the first year of the pandemic in Campania Region of Italy.

10:15-10:30 **Maria D'Accolti**, *Department of Chemical, Pharmaceutical and Agricultural Sciences, and LTTA, University of Ferrara, Ferrara* - Shaping the subway microbiome by a probiotic-based sanitation during the COVID-19 emergency.

10:30-10:45 **Tobia Fantoni**, *Department of Neuroscience, Biomedicine and Movement Sciences, University of Verona, Verona* - Decay of neutralization activity in vaccines receiving anti-SARS-CoV-2 3rd booster dose BNT162b2.

10:45-11:00 **Sara Baroni**, *Department of Molecular Biochemistry and Pharmacology, "Mario Negri" Institute for Pharmacological Research, IRCCS, Milan* - An integrated multidisciplinary platform to develop and validate anti-COVID-19 compounds.

11:00-11:15 **Bianca Maria Nastri**, *Department of Experimental Medicine, University of Campania "Luigi Vanvitelli", Naples* - Short peptides inhibit SARS-CoV-2 infection.

SESSION 2: Development of novel bioinformatics tools and innovative therapies to target tumors

Chairs: Greta Forlani, Alessandro Rondina

11:15-11:30 **Giulia Braccini**, *Institute of Biomedical Technologies, National Research Council (CNR), Pisa research Area, Pisa* - Molecular mechanisms regulating BMI1 in lung cancer.

11:30-11:45 **Mariam Shallak**, *Laboratories of General Pathologies and Immunology "Giovanna Tosi", Department of Medicine and Surgery, University of Insubria, Varese* - The endogenous HBX interactome in ATL leukemic cells reveals an unprecedented complexity of host interacting partners involved in RNA splicing.

11:45-12:00 **Alessandra Loda**, *Department of Molecular and Translational Medicine, University of Brescia, Brescia* - Cancer stem-like cells: a new therapeutic target for the treatment of uveal melanoma.

12:00-12:15 **Andrea Gatta**, *Laboratories of General Pathology and Immunology "Giovanna Tosi", Department of Medicine and Surgery, University of Insubria, Varese* - Intracranial injection of CIITA-driven MHC-II positive glioblastoma cells induce an effective anti-tumour immune response in vivo: implication for new therapeutic strategies against the glioblastoma.

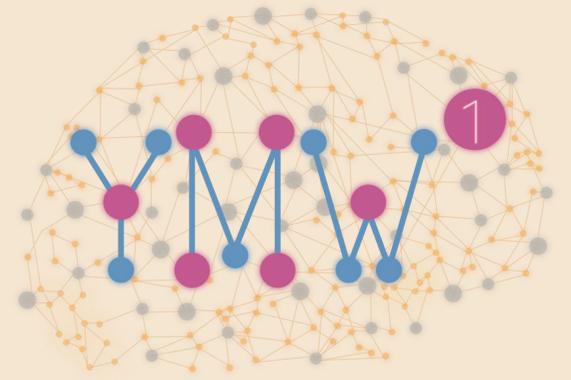
12:15-12:30 **Mattia Domenichini**, *Department of Molecular and Translational Medicine, University of Brescia, Brescia* - VEGFR2R1051Q and FGFR1D647N correspondent mutations exhibit pro-oncogenic effects both *in vitro* and *in vivo*.

12:30-12:45 **Madhura Tathode**, *Department of Precision Medicine, University of Campania "Luigi Vanvitelli", Naples* - Identification of prognostic gene markers using transcriptome analysis in hypoxic mesothelioma.

12:45-13:00 **Ilaria Cosentini**, *Department of Biomedical and Biotechnological Sciences, Section of Medical Biochemistry, University of Catania, Catania* - A new computational framework for predicting cancer drug response.

13:00-13:15 **Alberto Reale**, *Department of Molecular Medicine, University of Padua, Padua* - Primary monocytes as carriers for the oncolytic virotherapy of glioblastoma.

Scientific Program



LUNCH BREAK

INVITED SPEAKER:

Chairs: Irene Cassaniti, Silvia Santoro

14.15-14.45 **Roberta Rizzo**, *University of Ferrara* - Role of herpesvirus protein in the control of host immune response

SESSION 3: Omics approaches to study complexity

Chairs: Serena Messali, Laura Veschetti

14:45-15:00 **Mirko Treccani**, *GMLab, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona* - BioVRPi: can bioinformatics and genomics become pocket-sized and affordable to everyone?

15:00-15:15 **Alice Antonello**, *Cancer Data Science Laboratory, Department of Mathematics and Geosciences, University of Trieste, Trieste* - Integrated quality control of allele-specific copy numbers, mutations and tumor purity from cancer whole genome sequencing assays.

15:15-15:30 **Francesco Messina**, *National Institute for Infectious Diseases "Lazzaro Spallanzani", IRCCS, Rome* - Multilevel computational approach on transcriptomic data at single cell level in systemic infectious diseases.

15:30-15:45 **Alice Chiodi**, *Institute of Biomedical Technologies, National Research Council (CNR), Segrate, Milan* - Disentangling the interactions between pathways: a case study on breast cancer.

15:45-16:00 **Irene Cazzaniga**, *Institute of Biomedical Technologies, National Research Council (CNR), Milan* - Evaluation of R257C substitution on ACTG2 monomer and filament.

16:00-16:15 **Vanessa Palmas**, *Department of Biomedical Sciences, Microbiology Unit, University of Cagliari, Cagliari* - Gut microbiota markers associated with extreme longevity in healthy Sardinian subjects.

16:15-16:30 **Federica Fratini**, *Italian National Institute of Health (ISS), Rome* - Blending biology and bioinformatics it is mandatory, but statistical significance it is not enough.

SESSION 4: An overview of therapeutic approaches: from bio- to -informatic

Chairs: Carla Zannella, Matteo Uggeri

16:30-16:45 **Francesco Paolo Bianchi**, *Interdisciplinary Department of Medicine, "Aldo Moro" University of Bari, Bari* - Long-term immunogenicity of oral poliomyelitis vaccine (OPV) in a polio-free country.

16:45-17:00 **Annalisa Chianese**, *Department of Experimental Medicine, University of Campania "Luigi Vanvitelli", Naples* - Host defence amphibian peptide and its potential as antiviral agent.

17:00-17:15 **Matteo Lusardi**, *Department of Pharmacy, University of Genoa, Genoa* - Novel amino-pyrazole analogues interfering with cell migration.

17:15-17:30 **Naomi Scarano**, *Department of Pharmacy, University of Genoa, Genoa* - Structure-Based Virtual Screening (SBVS) in flexible systems: the case of SIRT-2.

17:30-17:45 **Giovanni Strazzabosco**, *Department of Chemical and Pharmaceutical Sciences, University of Ferrara, Ferrara* - Glicopro, a multi-modulative ocular formulation based on standardized and sterile snail mucus extract.

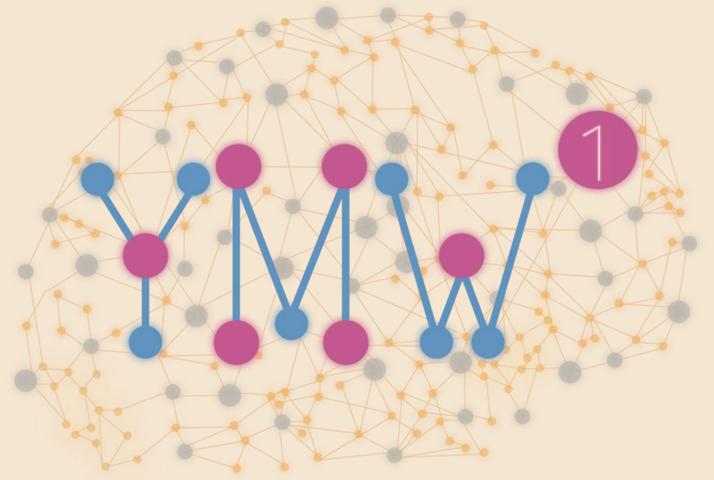
17:45-18:00 **Zaira Tomasoni**, *Department of Molecular and Translational Medicine, Division of Pharmacology, University of Brescia, Brescia* - Using human induced pluripotent stem cells technology for the study of neuronal alterations and vulnerability to stress in patients with Treatment-Resistant Depression.

18:00-18:15 **Antonella Carbonara**, *Postgraduate School of Public Health and Preventive Medicine, "Aldo Moro" University of Bari, Bari* - Primary prevention in pregnancy: a blending approach.

CLOSING REMARKS AND AWARDS

18:15-18:30 **Antonella Bugatti, Francesca Caccuri, Pasqualina D'Ursi, Paola Fossa, Alessandro Orro**

General Information



On-line Workshop date:

16th December 2022

From **09:00** to **18:30**

Registration guidelines:

The access to the on-line workshop is free, but subject to online registration using the website:

<https://www.blendingbb.it/>

Guidelines for speakers and chairpersons:

Access to the on-line platform from **08:30**.

(The other on-line workshop participants are kindly requested to access after **08:50**, as reported in the scientific program)

