



National Research Council of Italy

Department of Biomedical Sciences **dsb@CNR**

# Target discovery for unmet medical needs and precision/personalized medicine

## Conference

**Rome, April 4<sup>th</sup> – 5<sup>th</sup>, 2022**

CNR Headquarters - Aula Convegni

Piazzale Aldo Moro,7

Info: [segreteria.dsb@cnr.it](mailto:segreteria.dsb@cnr.it) – (+39) 06 4993 3714

Online registration:

<https://register.gotowebinar.com/register/5607297517654337804>





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## Acknowledgments

### DSB Organizing Committee

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Daniela Stalteri, DSB - IT coordinator

# Target discovery for unmet medical needs and precision/personalized medicine, April 4<sup>th</sup> - 5<sup>th</sup>, 2022

## Program – Monday April 4<sup>th</sup>, 2022

11.00 - 11.20 Welcome address – Daniela Corda, DSB Director

11.20 - 12.00 *Keynote Lecture: "Exscalate, an open platform to accelerate the drug discovery pathway from target to clinical proof of concept" – Marcello Allegretti, Chief Scientific Officer, Dompé Farmaceutici S.p.A.*

*Session: "New Computational Approaches in Drug Discovery/Targets identification in oncology" - Chair: Cesare Montecucco*

12.00 - 12.20 Type I and II BIR domains as targets for cancer therapy – Federica Cossu, IBF

12.20 - 12.40 The glycerophosphoinositols: from physiology to pharmacology – Alessia Varone, IEOS

12.40 - 13.00 Intracerebellar administration of the chemokine CXCL3 prevents the neoplastic transformation of cerebellar precursor cells forcing their migration – Laura Micheli, Felice Tirone, IBBC

13.00 - 13.20 Identification of pathological noncoding RNAs as new targets for RNA-mediated therapies in brain cancer – Pietro Laneve, IBPM

13.20 - 14.40 **Lunch**

*Session: "New Computational Approaches in Drug Discovery/Targets identification in oncology" - Chair: Giovanni Maga*

14.40 - 15.20 *Keynote Lecture: "CNCCS: a bridge between basic research and therapeutic application" – Carlo Toniatti, Chief Scientific Officer, I.R.B.M. S.p.A.*

15.20 - 15.40 Reduced levels of Prostaglandin I2 Synthase: a distinctive feature of the cancer-free trichothiodystrophy – Donata Orioli, IGM

15.20 - 15.40 Role of genome structure in prostate cancer – Chiara Lanzuolo, ITB

15.40 - 16.00 Cancer genomics through Third Generation Sequencing – Silvo Conticello, IFC

16.00 - 16.20 Non-canonical role of PDK1 as a negative regulator of apoptosis through macromolecular complexes assembly at the ER-mitochondria interface in oncogene-driven NSCLC – Viviana De Rosa, IBB

16.20 - 16.40 Potential new therapies targeting NSCLC heterogeneity – Elena Levantini, ITB

16.40 - 17.00 Bioinformatics approaches for COVID-19 genomics – Matteo Chiara, IBIOM

17.20 - 17.30 **Conclusions**



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## Program – Tuesday April 5<sup>th</sup>, 2022

09.00 - 09.20 Welcome address – Daniela Corda, DSB Director

09.20 - 10.00 *Keynote Lecture: "Protein Folding Pathways Across Physiology & Therapy"* – Emiliano Biasini, Associate Professor, CIBIO, University of Trento

**Session: "Nucleic acid-based therapeutics" - Chair: Valeria Poli**

10.00 - 10.20 Breaking the code of ribosome heterogeneity to develop next-generation non-coding RNA-based therapies – Gabriella Viero, IBF

10.20 - 10.40 Development of innovative drug-loaded and aptamer targeted nanosystems for treatment of triple-negative breast cancer – Laura Cerchia, IEOS

10.40 - 11.00 Lmat=LNA-204 as therapeutic strategy in melanoma – Laura Poliseno, IFC

11.00 - 11.20 A novel approach to telomere-driven cellular senescence and age-related diseases – Fabrizio d'Adda di Fagagna, IGM

11.20 - 11.40 CRISPR correction of DNMT3B mutations in ICF1 patient iPSCs identifies early genomic disease targets with restored DNA methylation – Maria R. Matarazzo, IGB

11.40 - 12.40 **Light Lunch**

**Session: "Precision medicine: from target discovery to clinical development" – Chair: Giuseppina De Simone**

12.40 - 13.00 Towards the clinical translation of lentiviral vector gene therapy for osteopetrosis – Valentina Capo, IRGB

13.00 - 13.20 Machine Learning for Clinical Radiobiology – Laura Cella, IBB

13.20 - 13.40 Machine Learning approaches for the investigation of the human microbiome – Bruno Fosso, IBIOM

13.40 - 14.00 Pathogenic epigenetic reprogramming of stromal cells contributes to adverse cardiac remodeling – Valeria Bianconi, IBPM

14.00 - 14.20 Protein mono-ADP-ribosylation in the control of cell pathophysiology – Giovanna Grimaldi, IEOS

14.20 - 14.40 Q2 derivative prevents obesity by inducing browning and inhibiting adipogenesis of 3T3-L1 – Paola Ungaro, IEOS

14.40 - 15.00 Validation of three yeast-based assays for functional classification of BRCA1 missense variants: application of Machine Learning methods – Tiziana Cervelli, IFC

15.00 - 15.20 Targeted genome editing of haematopoietic stem cells for treating recombination activating gene 1 (RAG1) immunodeficiency – Maria C. Castiello, IRGB

15.20 - 15.30 **Conclusions**