



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

DEPARTMENT  
OF PHARMACY  
AND BIOTECHNOLOGY

# 6<sup>TH</sup> BIOCHIMICA DEI TUMORI WORKSHOP



## UNTANGLING THE MOLECULAR AND METABOLIC NETWORKS IN CANCER PROGRESSION

**Bologna**  
**July 9-10<sup>th</sup>, 2026**

**Plesso Belmeloro**  
**University of Bologna**  
**via B. Andreatta, 8**



## Organizing Committee

Marco Fiorillo, University of Calabria  
Luisa Iommarini, University of Bologna  
Andrea Morandi, University of Florence  
Anna Maria Porcelli, University of Bologna  
Manuela Sollazzo, University of Bologna

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Nicla Lorito, University of Florence  
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Alfredo Smiriglia, University of Florence  
Gaia Tioli, IRCSS Bologna - Istituto delle Scienze Neurologiche

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Ferdinando Chiaradonna, University of Milano Bicocca  
Marco Fiorillo, University of Calabria  
Luisa Iommarini, University of Bologna  
Luigi Leanza, University of Padua  
Andrea Morandi, University of Firenze  
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**Thursday, 9<sup>th</sup> July**

**10:00-11:30 Registration of Participants**

**11:30-12:00 Institutional Greetings**

**12:00 – 12:45 Opening Lecture**

*Chair: M. Fiorillo, A. Morandi*

**Targeting metabolic flexibility in cancer**

Almut SCHULZE

*German Cancer Research Center, Heidelberg*

**12:45 – 13:45 Welcome Lunch and Poster mounting**

**Session I Metabolic Reprogramming in Tumor Progression**

*Chairs: G. Li Volti, B. Zerbato*

**13:45 – 14:00 GTP homeostasis supports mitochondrial *cristae* remodeling and pancreatic tumor progression**

F. Bozzetto, University of Padua; Veneto Institute of Molecular Medicine

**14:00 – 14:15 MLK4 regulates mitochondrial dynamics and metabolic rewiring in pancreatic cancer**

N. Ghiglione, University of Turin

**14:15 – 14:30 Metabolic Reprogramming in Lung Cancer: Tracing the Transition from Primary Tumor to Circulating Tumor Cells and Metastasis**

S. Serrao, University of Milano Bicocca

**14:30 – 14:45 The RNA-binding protein SDOS/TIRR shapes riboregulation, DNA damage response and interferon signaling in breast cancer cells**

D.S. Matassa, University of Naples Federico II

**14:45 – 15:00 The chaperone TRAP1 couples glutaminolysis and aspartate availability to sustain melanoma cells invasion**

C. Laquatra, University of Padua



**15:00 – 15:10 Beyond the Endpoint: Continuous OCR for Dynamic Tumor Biology**  
M. Lu, LUCID SCIENTIFIC

**15:10 – 15:30 Selected Flash Talk**

*(4 min each plus discussion)*

**Formyl-peptide receptor 2 stimulation rewires branched-chain amino acid metabolism in glioblastoma cells.**

C. Brignola, University of Naples Federico II

**Acute Myeloid Leukemia: a key role of DGKα and DGKζ in cell viability**

E. Gorla, University of Eastern Piedmont

**Metabolic remodeling during NSCLC spheroids maturation: a comparative 2D/3D study**

M. Infantino, University of Pisa

**Uncovering the role of the secreted protein C10orf118 in breast cancer cells-derived exosomes**

V.C. Siagka, University of Insubria

**15:30 – 17:15 Coffee Break and Poster session**

**Session II**

**Metabolic Communication in Tumor Microenvironment**

*Chairs: J. Brunetti, L. Leanza*

**17:15 – 17:45 The effects of metabolic therapies on solid tumor microenvironment: lessons from targeting respiratory complex I**

Ivana KURELAC

*Department of Medical and Surgical Sciences, University of Bologna*

**17:45 – 18:00 Defective mitochondrial metabolism in mesenchymal stromal cells shapes a stress-adapted myelodysplastic-like bone marrow niche**

C. Giallongo, University of Catania

**18:00 – 18:15 IκB/NF-κB supports tumor progression through fatty acid oxidation and CD8+ T-cell impairment**

G. Carrà, University of Turin



**18:15 – 18:30 Aggressive Breast Cancer Cell-Derived  
Conditioned Media Induce Inflammatory and  
Metabolic Reprogramming of Stromal Fibroblasts  
toward a CAF-like State**

A. Ciringione, University of Parma

**18:30 – 18:45 Glutamate overload in Myelofibrosis  
microenvironment reshapes mesenchymal  
stromal cells metabolic and epigenetic  
profiles**

S. Giallongo, University of Enna “Kore”

**18:45 – 18:55 Samplix Double-Emulsion Droplets for  
Functional Analysis of Immune-Tumor  
Interactions at the Single-Cell Level**

L. Salerno, CYTOSENSE

**20:30 Social dinner – Ristorante La Capriata  
Corte Isolani, Strada Maggiore 19/B**



## Friday, 10<sup>th</sup> July

### Session III **Balancing life and death in tumor progression**

*Chairs: L. Iommarini, A. Paone*

- 09:00 – 09:30 Identification and targeting of mechanism suppressing phospholipid peroxidation and associated ferroptosis**  
 Jose Pedro FRIENDMANN ANGELI  
*Rudolf-Virchow-Zentrum - Center for Integrative and Translational Bioimaging, Würzburg*
- 09:30 – 09:45 The interaction of IF1 with the OSCP subunit of ATP synthase has a key anti-apoptotic role in lung and cervix cancers**  
 V. Giorgio, University of Bologna
- 09:45 – 10:00 Glutamine synthetase as a metabolic rheostat of ovarian cancer progression and therapy response**  
 S. Miglietta, University of Bari
- 10:00 – 10:15 AI-powered discovery and structure-based optimization of new 7-hydroxycoumarine-based AKR1C3 inhibitors able to reverse chemoresistance in aggressive and rare tumors**  
 G. Vanzetti, University of Turin
- 10:15 – 10:30 Branched Oncolytic Peptides induce Immunogenic Cell Death and Antitumor Activity in Pancreatic Cancer**  
 A. Rencinai, University of Siena
- 10:30 – 10:40 Real-time biology & Multiplex: getting closer to physiological results**  
 G. Mancuso, PROMEGA

**10:40 – 11:15 Coffee Break**



## Session IV

## Multi-Omics Integration of Molecular and Metabolic Pathways

*Chairs: M. Grosso, D. Tibullo*

- 11:15 – 11:45 5' cap hypermethylation regulates oxidative phosphorylation in AML**  
Isaia BARBIERI  
*Department of Molecular Biotechnology and Health Sciences, University of Turin*
- 11:45 – 12:00 Metabolic plasticity underlies ferroptosis resistance driven by mutant p53 in pancreatic ductal adenocarcinoma**  
A. Celesia, University of Verona
- 12:00 – 12:15 Asparagine-rich metastatic niches drive prostate cancer organotropism by enabling translational rewiring toward N-glycosylated proteins**  
E. Pranzini, University of Florence
- 12:15 - 12:30 PARP12 drives estrogen signaling, chromatin dynamics and therapeutic vulnerability in ER<sup>+</sup> breast cancer**  
L. Serpieri, Institute of Endotypes in Oncology, Metabolism and Immunology; National Research Council of Naples
- 12:30 – 12:45 GATA-1S induces drug resistance in myeloid leukemia cells by targeting sphingolipid metabolism**  
S. Trombetti, University of Naples Federico II
- 12:45 – 12:55 Linking Technologies, Expertise, and Research: The Mission of CRBA**  
M. Ferracin, CRBA
- 13:00 – 14:30 Lunch, Poster viewing and Networking**



*Chairs: F. Chiaradonna, M. Sollazzo*

### 14:30 – 14:45 Selected Flash Talk

*(4 min each plus discussion)*

**Extracellular NAMPT and NNMT characterize Braf inhibitor–resistance in melanoma cells, with preliminary evidence of nuclear localization**

B. Ghezzi, University of Eastern Piedmont

**ER-mitochondria contact sites modulate melanoma progression and chemoresistance**

M. Rossini, University of Padua

**uL3 Downregulation drives Colorectal Cancer Stemness and Chemoresistance: Targeting with Vitamin C in 2D, 3D and CAM Models**

Z. Petrone, University of Naples Federico II

### 14:45 – 15:30 Closing lecture

**Kinome screening in drug resistant cancers: a journey from biomarker discovery to therapeutic targets identification**

Chiara RIGANTI

*Department of Oncology, University of Turin*

**15:30**

**Closing remarks & awards**

