16.00 - 16.15

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



MONDAY, 27TH OCTOBER

12.00 - 14.00Registration 13.30 - 13.45 **Opening and Greetings:** Debora Berti. Andrea Galli. Andrea Morandi. Michele Caraglia 13.45 - 14.30 OPFNING I FCTURF Persistence and diversity: challenges in treating gastric cancer Silvia Giordano University of Turin, Italy 14.30 - 15.00Coffee Break. Poster Viewing & Networking **SESSION I: Metabolic Pathways in Therapy Response and Resistance** Chairs: Chiara Riganti, Pasquale Zizza, Alessandra Fiore **Determinants of therapy resistance in breast cancer 15.00 – 15.30** Elisabetta Marangoni Institut Curie, Paris, France **15.30 – 15.45** Model systems to trace cancer treatment and emergence of residual disease **Martin Jechlinger - SELECTED** European Molecular Biology Laboratory EMBL, Heidelberg, Germany Loss of mitochondrial ECHDC2 expression reduces oxidative **15.45 – 16.00** damage of nuclear DNA and causes radiotherapy resistance Paola Francica - SELECTED University of Bern. Switzerland

Agilent workflow for cancer research and immunotherapy

16.15 – 16.45 Tumor heterogeneity, ferroptosis and metastasis
Arthur Mercurio

University of Massachusetts, USA

Emma Nora Di Capua

Agilent DGG

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MONDAY, 27TH OCTOBER

16.45 – 17.00 Targeting the stearoyl-CoA desaturase SCD1 uncovers a ferroptosis vulnerability in proteasome inhibitor-resistant multiple myeloma

Ludovica Ganino – SELECTED

University "Magna Graecia" of Catanzaro, Italy

17.00 – 17.15 Fluidic platforms: how to mimic the human environment

Silvia Quaglio

IVTech

17.15 – 17.45 Elevator pitch presentations:

Glutamate—oxaloacetate transaminase 2 (GOT2)-dependent aspartate availability confers ferroptosis resistance to disseminating prostate cancer cells

Sara Roccabianca

University of Florence, Italy

BCMA-binding peptides: a dual approach for real-time monitoring and targeting tumor B cells

Elisabetta Pingitore

University "Magna Graecia" of Catanzaro, Italy

Predicting therapy resistance using targeted base editor screening

Nicole Cona

University of Trento, Italy

NAMPT inhibition impairs mTOR-dependent regulation of translation in melanoma

Alberto Maria Todesco

University of Piemonte Orientale, Italy

The cGAS/STING pathway mediates sensitivity and resistance to PARP inhibitors in Ewing sarcoma with an impact on the modulation of macrophage-related immune response

Marianna Carrabotta

The Rizzoli Orthopaedic Institute IRCCS, Bologna, Italy

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MONDAY, 27TH OCTOBER

miR-223-mediated metabolic alterations promote ferroptosis resistance and chemoresistance in laryngeal cancer

Michela Falco

University of Campania "L. Vanvitelli", Naples, Italy

Decoding the genetic landscape of laryngeal cancer

Federica Melisi

Biogem, Ariano Irpino, Italy

Exploiting metabolic vulnerabilities to prevent the onset of cisplatin resistance in ovarian carcinoma

Elena Capellini

Mario Negri Pharmacological Research Institute IRCCS, Milan, Italy

17.45 – 19.30 Welcome Cocktail & Poster Session

TUESDAY. 28TH OCTOBER

SESSION II: Chronic Diseases: Mechanisms of Therapy Response and Resistance

Chairs: Francesca Zazzeroni, Raffaele Addeo

- 9.00 9.30 How to handle resistance to treatment in nephrotic syndrome Elena Lazzeri

 University of Florence, Italy
- 9.30 10.00 Linear ubiquitination as a resistance mechanism in metabolic syndrome

Nieves Peltzer

University of Stuttgart, Germany

10.00 – 10.15 MAP15k controls intracellular lipid uptake and protects mammalian liver from steatotic disease

Mario Chiariello - SELECTED

The National Research Council CNR, Siena, Italy

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



TUESDAY. 28TH OCTOBER

10.15 – 10.45 Elevator pitch presentations:

The L370F $\text{ER}\alpha$ mutation confers resistance to CDK4/CDK6 inhibitors in a pre-clinical model

Filippo Acconcia

University of Roma Tre, Italy

Dual targeting of Hedgehog and DNA damage response pathways to suppress melanoma growth

Luisa Maresca

Institute for Cancer Research and Prevention ISPRO, Florence, Italy

Mapping genetic dependencies of drug-resistant cancer cells for the rational design of combinatorial treatments

Nevenka Radic

Human Technopole, Milan, Italy

TrkB-based signature identifies high-risk cutaneous squamous cell carcinoma and TrkB blockade reprograms tumor and stromal cells toward suppressive phenotypes

Valeria Bartolocci

The Istituto Dermopatico dell'Immacolata IDI IRCCS, Rome, Italy

The SGLT2 inhibitor Canagliflozin promotes colorectal cancer cell death via metabolic impairment

Isabella Donisi

University of Campania "L. Vanvitelli", Naples, Italy

ERK5 inhibition increases the expression and nuclear localization of EGFR in hepatocellular carcinoma, generating new targeting opportunities

Alessio Menconi

University of Siena, Italy

Identification of a novel biomarker for targeted therapy in gastric cancer treatment

Pellegrino Mazzone

Biogem, Ariano Irpino, Italy

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



TUESDAY, 28TH OCTOBER

Differentially expressed microRNAs in in vitro and in vivo glaucoma models: unveiling molecular pathways and candidate therapeutic targets

Chiara Compagnoni University of L'Aquila, Italy

10.45 – 11.15 Coffee Break, Poster Viewing & Networking

SESSION III: Unconventional Targets and Emerging Therapeutic Strategies

Chairs: Icro Meattini, Silvia Zappavigna, Joanna Kopecka

11.15 – 11.45 How to overcome cell death resistance in diffuse large B cell lymphoma

Alessandro Annibaldi

Center for Molecular Medicine Cologne CMMC, University of Cologne, Germany

11.45 – 12.15 Rare mutations in cancer: the case of NTRK1-3 fusions and Larotrectinib

Michele Caraglia

University of Campania "L. Vanvitelli", Naples, Italy

12.15 – 12.30 EV purification & characterization: where precision meets potential Maira Bacchiega

Izon Science - Schaefer SEE Srl

12.30 – 12.45 Beyond expression - functional quantification of immune checkpoints with OF-Pro®

Olatz Larrañaga

Cytosens

12.45 – 13.00 WEE1 inhibition as a therapeutic strategy for overcoming secondary resistance to targeted therapies in colorectal cancer

Sabrina Arena – SELECTED University of Turin, Italy

13.00 – 13.15 Targeting epigenetic co-dependencies to overcome endocrine therapy resistance in breast cancer

Giovanni Nassa – SELECTED University of Salemo, Italy

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



TUESDAY. 28TH OCTOBER

13:15 – 14.45 Poster Session & Light Lunch

SESSION IV: Molecular Predictors of Therapy Response

Chairs: Massimo Donadelli, Maria Teresa Di Martino

14.45 – 15.15 Monitoring treatment response in patients with metastatic cancer using epigenetic biomarkers

Matteo Benelli

University of Florence, Italy

15.15 – 15.45 Tracking colorectal cancer evolution in liquid biopsy

Federica Di Nicolantonio University of Turin, Italy

15.45 – 16.00 Timing cancer genomics driver events around therapy

Alice Antonello – SELECTED University of Trieste, Italy

16.00 – 16.15 ctDNA and cfMeDip as a tool to predict response in metastatic

melanoma under anti-PD1 + anti-CTLA4 treatments

Francesco Caraglia - SELECTED

University of Campania "L. Vanvitelli", Naples, Italy

16.15 – 16.30 The next evolution of droplet digital PCR

Mattia Criscuoli *Bio-Rad Laboratories*

16.30 – 17.00 Coffee Break , Poster Viewing & Networking

SESSION V: Decoding Heterogeneity in Therapeutic Response

Chairs: Enrico De Smaele, Caterina Mancarella

17.00 – 17.30 Multiomics correlation with clinical response in immuno-oncology

Michele Ceccarelli

Miller School of Medicine, Miami, USA

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



TUESDAY, 28TH OCTOBER

17.30 – 18.00 Spatio-temporal T cell tracking for personalized TCR-T designs in childhood cancer

Alexandra Avgustinova

Institute for Research in Biomedicine IRB, Barcelona, Spain

18.00 – 18.15 Chemotherapy enhances HMGA1 secretion through the mutant p53-CK2 axis in pancreatic ductal adenocarcinoma cells

Federica Danzi – SELECTED University of Verona, Italy

18.15 – 18.45 Transcriptional footprints of cancer dependency shock as a computational tool for early anti-cancer drug discovery

Francesco Inrin

Human Technopole, Milan, Italy

18.45 – 19.15 AICC General Assembly

20.00 SOCIAL EVENT: "Terrazze Michelangelo"

WEDNSESDAY, 27TH OCTOBER

SESSION VI: The Tumor Microenvironment in Therapy Resistance

Chairs: Elisa Giannoni, Katia Scotlandi, Simone Di Franco,

9.00 – 9.30 Extracellular nutrients drive metabolic stress resistance and support metastatic organotropism in prostate cancer: when tumor cells go hunting the most favorable environment

Paola Chiarugi

University of Florence, Italy

9.30 – 10.00 Targeting inflammation in the tumour microenvironment by blocking cytokine signalling: implications in response to immunotherapy

Maria M. Caffarel

Ikerbasque, Biogipuzkoa Health Research Institute, San Sebastian, Spain

TRICK OR TREAT? DECODING THERAPY RESPONSE AND RESISTANCE IN CANCER AND CHRONIC DISEASES



WEDNSESDAY, 29TH OCTOBER

10.00 – 10.15 Heterogeneous gene expression programs define the tumor ecosystem of laryngeal squamous cell carcinoma: insights from single-cell transcriptomics

Marianna Scrima – SELECTED

Biogem, Ariano Irpino, Italy

10.15 – 10.30 The miR11/MALAT-1 ceRNA circuit controls chemoresistance in lung cancer by rewiring the metabolism of cancer cells and cancer-associated immune cells

Niloufar Jafari – SELECTED University of Turin, Italy

10.30 – 10.45 CAIX inhibition by SLC-0111 induces immunogenic cell death and reverses FLOT resistance in gastric cancer

Elena Andreucci – SELECTED University of Florence, Italy

10.45 – 11.00 Impact of p-cresyl sulfate on colorectal cancer progression under uremic conditions

Rossella Di Paola – SELECTED

University of Campania "L. Vanvitelli", Naples, Italy

11.00 - 11.30 Coffee Break & Networking

Chairs: Andrea Morandi, Nicla Lorito, Michele Caraglia

11.30 – 12.15 CLOSING LECTURE

Targeting the tumour microenvironment (and sarcomas)

Clare Isacke

The Institute of Cancer Research ICR, London, UK

12.15 – 12.45 Awards Ceremony and Closing Remarks