

**38<sup>th</sup> AICC International Meeting**

***PRECISION MEDICINE IN THE BIG DATA AGE:  
from basic science to clinically relevant  
insights through AI***



**4-6<sup>th</sup> November 2026  
University of Calabria  
"B. Andreatta" Conference Center  
Rende - Cosenza**

**38<sup>th</sup> AICC International Meeting**  
4-6<sup>th</sup> November 2026, University of Calabria,  
"B. Andreatta" Conference Center  
Rende (Cosenza)

**Precision Medicine and the Big Data Age:  
From Basic Science to Clinically Relevant Insights through AI**

***Conference overview***

The rapid evolution of precision medicine increasingly relies on the effective interpretation of big data and the development of fast, accurate diagnostic methods. Artificial intelligence (AI) is central to this transformation, enhancing the precision, personalization, and efficiency of healthcare interventions while enabling advanced bioinformatic analyses.

The 38<sup>th</sup> AICC International Conference will examine key applications of AI across the precision medicine landscape. In drug discovery and development, computational tools are accelerating target identification, molecular design, and candidate prioritization, while multi-omics approaches characterize drug mechanisms, uncover metabolic vulnerabilities, and monitor treatment-induced cellular reprogramming.

The conference will also highlight AI's role in predictive and preventive medicine, demonstrating how models integrate clinical histories, genetic data, metabolomic signatures, and environmental factors to forecast disease risk and guide early, personalized interventions. In parallel, novel nanomaterial-based platforms for point-of-care detection of metabolic and molecular markers will be presented.

Advances in radiomics, imaging, and surgery will be discussed, showing how AI enhances early detection, refines disease characterization, and supports precision-guided interventions. Biomarker discovery through multi-omics integration will be addressed as a key strategy for identifying clinically meaningful diagnostic and prognostic signatures.

In immuno-oncology, computational tools combined with metabolomic profiling, are revealing how metabolic crosstalk in the tumor microenvironment influences immune responses and therapy outcomes, improving patient stratification and enabling more effective treatments. Finally, the convergence of big data, AI, and multi-omics will be explored as a driver for next-generation predictive models, leveraging large-scale clinical and real-world datasets to support informed, patient-centered care.

Together, these discussions will emphasize that AI empowers evolution of precision medicine, bringing healthcare closer to a model that is accurate, proactive, and deeply individualized.

We look forward to welcoming you to this inspiring and insightful event!

Scientific Coordinators  
Maria Teresa Di Martino, UMG  
Rosamaria Lappano, UMG  
Marcello Maggiolini, UNICAL

The AICC President  
Michele Caraglia

# FACULTY

**Maria Raffaella Ambrosio**, UniCal, Rende, Cosenza, Italy

**Ivano Amelio**, University of Konstanz, Germany

**David Chang**, University of Glasgow, UK

**Stefano Cinti**, University of Naples Federico II, Naples, Italy

**Vincenzo Desiderio**, University of Campania L. Vanvitelli, Naples, Italy

**Luca De Stefano**, Unit of Naples-National Research Council, Naples, Italy

**Craig Anthony Glastonbury**, University of Oxford, Oxford, UK

**Laura Letchuga**, Institut Català de Nanociència (ICN2), Barcellona, Spain

**Franca Melfi**, UniCal, Rende, Cosenza, Italy

**Alberto Paderno**, Humanitas University, Milan

**Giuseppe Palmieri**, University of Sassari and IRGB, CNR, Sassari, Italy

**Federica Papaccio**, University of Salerno, Salerno, Italy

**Antonio Pea**, University of Verona, Italy

**Jonathan Pol**, INSERM, Centre de Recherche des Cordeliers, Paris

**Stefan Schmidt**, University of Mannheim, Germany

**Nicole Soranzo**, The Wellcome Sanger Institute, Cambridge, UK

**Silvano Sozzani**, Sapienza University of Rome, Italy

**Pierosandro Tagliaferri**, Magna Graecia University of Catanzaro, Italy

**Domenico Talia**, UniCal, Rende, Cosenza, Italy

**Pierangelo Veltri**, UniCal, Rende, Cosenza, Italy

**Antonello Vidiri**, IRCSS Regina Elena, Rome, Italy

## Opening Session

12.00 – 14.00 Registration

14.00 – 14.15 Opening and Greetings:

Rector of Unical

Marcello Maggiolini

Maria Teresa Di Martino

Michele Caraglia

14.30 – 15.15 OPENING LECTURE – **Laura Letchuga (ICN2, Barcellona)**

*Real-time multiplexed clinical diagnostics with ultrasensitive nanophotonics biosensors*

## Session I

### **Innovative Devices for Precision Medicine**

Chairs: CD or CTS members

15.15 **Luca De Stefano**, Unit of Naples-National Research Council

*Small sensors, Early Cancer Detection: From diagnosis to Screening*

15.35 **Stefano Cinti**, University of Naples Federico II

*Exploiting point-of-care devices to boost diagnosis, treatment and follow-up in cancer*

15.55 **Federica Papaccio**, University of Salerno

*Patient-derived organoids for precision oncology*

16.15 **Vincenzo Desiderio**, University of Campania L. Vanvitelli

*Metabolic plasticity and intercellular communication in tumour microenvironment*

16.35 Selected Oral #1

16.45 Selected Oral #2

16.55 **Miguel Mantilla**, Head of Business Development for the EMEA – ABM

*Minibrains and Organoids: Beyond Conventional Cell Culture*

17.10 – 17.40 Elevator pitch presentations (8 x 3 min)

17.40 – 19.30 Welcome cocktail & Poster Session

## Session II

### AI-driven multiomics: from metabolomics to radiomics

Chairs: CD or CTS members

9.00 **Antonio Pea, University of Verona**

*Application of AI to clinical practice in pancreatic cancer and future directions*

9.20 **Stefan Schmidt, University of Mannheim, Germany**

*Single-cell and tissue spatial lipidomics, multi-omics, oncology and neuropathology related topics*

9.50 **Antonello Vidiri, IRCSS Regina Elena, Rome**

*Synergy of Radiomics and Machine Learning: from non-invasive diagnosis to predicting treatment response*

10.10 Company talk #2

10.25 Selected Oral #3

10.35 – 11.05 Coffee Break & Poster Session

## Session III

### Accelerating Innovation in Precision Medicine

Chairs: CD or CTS members

11.05 **David Chang, University of Glasgow**

*Self-supervised learning identifies clinically important histomorphological features in Pancreatic Ductal Adenocarcinoma*

11.35 **Craig Anthony Glastonbury, University of Oxford, UK**

*Spatial Transcriptomic characterisation of Inflammatory bowel disease*

12.05 **Ivano Amelio, University of Konstanz, Germany**

*Epigenetic control of Genomic Integrity: BAP1 in Gene–Environment Interplay*

12.35 Selected Oral #4

12.45 Selected Oral #5

12.55 Selected Oral #6

13.05 – 14.30 Light Lunch & Poster Session

**Session IV**

**Biomarkers and AI: Driving the Future of Precision Medicine**

Chairs: CD or CTS members

14.30 **Maria Raffaella Ambrosio**, UniCal, Rende, Cosenza

*Bridging Morphological Diagnosis and Treatment Response Prediction in Oncology*

14.50 **Pierosandro Tagliaferri**, Magna Graecia University of Catanzaro

*non-coding RNAs in oncology: a translational perspective in the era of AI*

15.10 **Franca Melfi**, UniCal, Rende, Cosenza

*Predictive Analytics and AI in robotic surgery: new frontiers and challenges*

15.30 Company talk #3

15.45 Selected talk #7

15.55 – 16.25 Coffee break & Poster Session

**Session V**

**The Power of AI in Immuno-Oncology:  
Opportunities and Challenges**

Chairs: CD member or CTS

16.25 **Jonathan Pol**, INSERM, Centre de Recherche des Cordeliers, Paris

*Mechanisms of immunogenic cell death*

16.55 **Silvano Sozzani**, Sapienza University of Rome

*Targeting of chemotactic receptors in the context of lung immunotherapy*

17.15 **Giuseppe Palmieri**, University of Sassari and IRGB, CNR, Sassari

*Correlation among (Epi)genomic profiling and clinical outcome in cancer patients treated with immunotherapy*

17.35 Selected talk #8

17.45 – 19.30 AICC assembly

20.00 Social Event

## Session VI

### **BIG DATA and AI for Next-Generation Medicine**

Chairs: CD or CTS members

9.20 **Domenico Talia**, UniCal, Rende, Cosenza

*Data analysis and AI techniques and models in Medicine*

9.40 **Alberto Paderno**, Humanitas University, Milan

*Foundation models in medicine: how to integrate big data and AI for clinical insights*

10.10 **Pierangelo Veltri**, UniCal, Rende, Cosenza

*AI-driven biomedical data manipulation: uncovering hidden secrets*

10.30 Selected talk #9

10.40 Selected talk #10

10.50– 11.20 Coffee break

11.20–11.50 Elevator pitch presentations (8 x 3 min) session #2

## Closing Session

Chairs: CD or CTS members

11.50 Closing Lecture - **Nicole Soranzo**, The Wellcome Sanger Institute, Cambridge, UK

*Longitudinal genomic prediction of chronic metabolic diseases*

12.35 -13.00 Awards Ceremony and Closing Remarks