

38th AICC International Meeting

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



4-6th November 2026

University of Calabria

"B. Andreatta" Conference Center

Rende - Cosenza

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**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 38th 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