Call For Abstract

The Call for Abstracts will open on December 11th, 2025.
We invite researchers, clinicians, and innovators to submit original work aligned with one of the conference's five scientific areas:

1. **Image-based and multimodal AI** - *example topics:* AI for screening, diagnosis, workflow optimization, treatment decision-making, prognosis, predictive biomarkers …
2. **Explainable and trustworthy AI** - *example topics*: Explainable AI, transparency, ethics and regulation, privacy, federated learning, synthetic data approaches …
3. **Agentic AI and Large Language Models** - *example topics*: Novel applications of agentic systems, LLMs, and foundation models in oncology
4. **Multi-omics, drug discovery, and prevention** - *example topics:* Integrative multi-omics, AI-driven drug discovery, prevention research, exposome, AI for single -omics …
5. **Digital health and AI-enabled care** - *example topics*: apps and wearable devices, real-world data and patient empowerment, digital twins, digital medicine, telemedicine, AI clinical trial design, trial matching …

Abstracts will be evaluated through a blind review process, by two independent reviewers in avoidance of conflicts of interest, and will be assessed based on the following criteria:

- *Scientific soundness; methodological rigor, and feasibility*
- *Innovation and potential impact of the work proposed*
- *Clarity of the objectives and the results where available*
- *Quality of the presentation*

The author of the best-ranked abstracts in each of the five areas will be invited to present their work in a flash talk (10 minutes) during the event.
Abstracts should be submitted on web platform - **https://www.aiforoncology.it/** by **February 3rd EoB** at the latest.
The results will be announced to all presenters by March 4th.

SUBMISSION DEADLINES

11th December 2025 open call
03rd February 2026 submission deadline
04th March 2026 Outcome notifications

SCIENTIFIC PROVIDER AND CONGRESS ORGANIZER

EVENTS CONGRESS&COMMUNICATION

Events srl
Via Lorenzo Lotto 9, 60019 Senigallia (AN)
Via Sabotino 14, 20135 Milano (MI)
www.events-communication.com

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Fondazione IRCCS Istituto Nazionale dei Tumori

Sistema Socio Sanitario
Regione Lombardia

ESAC

1st Annual

MEETING ESAC

(European Interdisciplinary Society for AI in Cancer Research)

4th Edition

AI FOR ONCOLOGY and Cancer Research

PRESIDENTS OF THE CONFERENCE

Arsela Prelaj, Jakob Nikolas Kather

MILAN, ITALY

7th - 8th MAY

2026

UNDER THE AUSPICES OF

Overview

The AI for Oncology Conference aims to equip participants with a comprehensive understanding of how advanced AI technologies are transforming cancer care and research. As AI innovation accelerates, its applications in oncology are becoming essential across the spectrum of diagnosis, treatment, and research. From integrating diverse datasets, such as multiomics, imaging, and clinical data, to advancing diagnostic precision, AI is enabling the discovery of patterns that traditional methods often overlook.

Participants will explore how AI-driven platforms are improving the integration of data, leading to more accurate diagnostics and personalized treatment approaches for cancers such as lung, breast, and colorectal cancers. Innovations in radiomics and digital pathology will also be highlighted, showcasing how AI enhances the analysis of imaging data and histopathology, particularly for challenging cancers like pancreatic, liver prostate, and head and neck tumors.

The conference will further delve into the role of AI in optimizing clinical research, from designing clinical trials to refining targeted therapies and immunotherapies.

Case studies will illustrate how AI is driving advances in cancer care, including applications in melanoma, NSCLC, and ovarian cancers, where predictive algorithms can identify the best treatment regimens, from adaptive radiation therapy to chemotherapy or immunotherapy dosing. The integration of Large Language Models and Foundation Models offers new ways to analyze clinical data, providing real-time, evidence-based recommendations that assist oncologists in selecting the most effective therapies, whether hormonal treatments for breast cancer or targeted/immunotherapy drugs for NSCLC or unknown primary tumors.

Additionally, the conference will emphasize the need for collaboration across healthcare providers, researchers, and industry partners, underscoring how such partnerships enhance diagnostic accuracy and treatment delivery for various cancer types, including breast, lung, and gastrointestinal cancers. Ultimately, the conference will provide a platform for participants to gain insights into cutting-edge AI advancements and how they can be applied to improve cancer diagnosis, treatment, and patient outcomes across a range of cancer types.

The shared knowledge and diverse experiences will enable clinicians, researchers, and technologists to further develop and implement innovative AI solutions in oncology.

Format

The event will cover two days. The speakers will have a diverse background to reflect the spectrum of Artificial Intelligence research (and beyond), from Artificial Intelligence engineering experts, to clinicians and translational researchers, and hybrid figures such as clinical Artificial Intelligence specialists. Faculty members represent worldwide centers of excellence in the field. The attendance is expected to mirror this variety, along with participants with a more specific background in imaging and pathology.

The conference also includes poster sessions, with prizes for the best posters in various AI fields. Participants will also be encouraged to participate to a call for abstracts, with the opportunity to present their work in flash talks during the symposium.

PRESIDENTS OF THE CONFERENCE

Arsela Prelaj, *Esac President, MD, PhD, Medical Oncologist, Thoracic Oncology Unit, Department of Medical Oncology, Fondazione IRCCS Istituto Nazionale Tumori, Head Of Artificial Intelligence for Oncology Lab, Milano, Italy*

Jakob Nikolas Kather, *Esac Elect-President, MD, MSc, Professor of Medicine and Computer Science TUD Dresden University of Technology Dresden, Germany*

SCIENTIFIC COMMITTEE

Mihaela Aldea
Julien Calderaro
Mireia Crispin
Filippo de Braud
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Raquel Pérez-Lopez
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Loic Verlingue

SCIENTIFIC SECRETARIAT

Narmin Ghaffari Laleh
Giovanni Scoazec

General Information

CONGRESS VENUE

Politecnico di Milano
Trifoglio Building - Campus Leonardo
Via Bonardi, 9 - 20133 Milano

REGISTRATION

Registration will be open soon
Registrations fees:
Free for Esac Members **www.esac-network.eu/register/**
Non Members 150,00 Euro
You may register for IN-PERSON OR ONLINE-ONLY ACCESS

For information: **segreteria@events-communication.com**

OFFICIAL LANGUAGE AND TIME

The official language is English
The official Time is Central European Summer Time (CEST), UTC +2
CME CREDITS
CME accreditation (valid for Italian participants only) for:
Medical Doctor, Chemist, Pharmacist, Biologist, Physician, Nurse.

Italian CME credits will be granted to those participants who attend at least 90% of scientic works, Il in the questionnaire assessment of perceived quality and duly Il in the evaluation questionnaires answering correctly 75% of the questions.

SCIENTIFIC PROGRAM
07 MAY 2026

8.00 a.m. Registrations open

8.30 a.m. **POSTER SESSION**

9.30 a.m. Welcome session
Arsela Prelaj, Jakob Nikolas Kather

Giovanni Apolone
President OECI, Organisation of European Cancer Institutes

Paolo Corradini
Scientific Director, Fondazione IRCCS INT

Maria Teresa Montella
General Director, Fondazione IRCCS INT

Donatella Sciuto
Chancellor, PoliMi

Alessandra Pedrocchi
Full Professor, PoliMi

Pietro Auletta
IPOP Onlus

Emanuele Monti
Presidente IX Commissione Permanente Sostenibilità Sociale, Casa e Famiglia Regione Lombardia

9.50 a.m. AI From patients perspective
Massimo Di Maio
President of AIOM

10.00 a.m. AI in Low and Middle income countries
Evis Sala
Minister of Health and Social Welfare of Albania

10.10 a.m. Introduction from ESAC steering committee
Mireia Crispin Ortuzar, Helena Linardou, Narmin Ghaffari Laleh

SESSION 1 *plenary*
FROM DATA TO INSIGHT: BUILDING RELIABLE FOUNDATIONS FOR AI IN CANCER

Chairs: **Iwona Lugowska, Claes Lundstrom**

10.15 a.m. Bias at the source: understanding and mitigating data imbalances in NSCLC and immunotherapy
Vanja Miskovic

10.30 a.m. Small data, big trouble: rare cancer bias in AI training sets
Guillaume Jaume

10.45 a.m. Discussion

10.55 a.m. Technical challenges for implementation and interoperability
Jens Kleesiek

11.15 a.m. USE CASE
Lessons from the clinic: data quality pitfalls in AI-based early detection: breat cancer example
Francisco Sanchez-Vega

11.25 a.m. Discussion

11.35 a.m. **Coffee Break**

Session 2 *plenary*
LLMS AND COPILOTS FOR CANCER RESEARCH AND TREATMENT

Chairs: **Jakob Nikolas Kather, Arsela Prelaj**

11.55 a.m. LLMs in cancer research:
real-world colorectal cancer examples
Isabella Wiest

12.15 p.m. KEYNOTE LECTURE
AI as medical copilot for treatment decision-making
Faisal Mahmood

12.55 p.m. Best Oral 1

1.05 p.m. Discussion

1.15 p.m. **Lunch Break**

Session 3 *plenary*
AGENTIC AI

Chairs: **Luca Agnelli, Mark Carman**

2.15 p.m. AI agents integration for tumor boards and IO treatment decision
Federica Corso

2.30 p.m. Multiagents for clinical trial matching and phase 1 pan-cancer treatment selection
Loic Verlingue

2.45 p.m. SOTA of AI agents in cancer research
Dyke Ferber

3.00 p.m. Discussion

Parallel - Round Tables

Session 4A
CLINICAL IMPLEMENTATION OF AI IN ONCOLOGY

Chairs: **Julien Calderaro, Luca Boldrini**

3.20 p.m. AI-driven pathology in clinical practice: head and neck and other cancers example use case
Alexander Pearson

3.35 p.m. DL and risk stratification n radiology application: kidney and prostate cancer use case
Keno Bressem

3.45 p.m. AI in image-guided interventions and surgical decision support in lung cancer diseaes
Nikolaos Koufos

3.55 p.m. AI applications in radiotherapy for oropharfyngeal cancer and osteonecrosis
Laia Humbert

4.05 p.m. Deploying an AI tool in routine clinical workflow (barriers and breakthroughs)
Mihaela Aldea

4.15 p.m. Discussion

Session 4B
TRUSTWORTHY AND RESPONSIBLE AI IN CANCER

Chairs: **Evangelia Christodoulou, Fabio Pagni**

3.20 p.m. Trust, transparency and accountability in oncology AI
Karim Lekadir

3.30 p.m. Evaluation process for generative AI
Jacqueline Lammert

3.40 p.m. Explainable AI for doctors: example in breast cancer
Luigi De Angelis

3.50 p.m. Best Oral 2

4.00 p.m. Navigating regulatory pathways for AI medical devices in Europe and beyond
Stephen Gilbert

4.15 p.m. Discussion

Session 4C
TECHNOLOGY TRANSFER OF AI SOLUTIONS IN HEALTHCARE

Chairs: **Alberto Redaelli, Alessandra Turi**

3.20 p.m. Title TBC
Jorge Reis-Filho

3.35 p.m. Experiences from TEF Health (TBC)
Petra Ritter

3.50 p.m. Pathway to a patent for DL in colonoscopy
Elena De Momi

4.00 p.m. USE CASE 1
Mattias Rantalainen

4.10 p.m. USE CASE 2
Victor Savevski

4.20 p.m. Discussion

4.35 p.m. ----------**Coffee Break**----------

Parallel Sessions no CME

5A Industry Symposium

Chair: **Francesco Trovò, Laura Mazzeo**

5.00 p.m. TBC

5B Meet the experts

Moderators: **Narmin Ghaffari Laleh, Giovanni Scoazec**

5.00 p.m. 3 faculty members for informal discussions (groups of 30, e.g.)
TBC

5C Tech Symposium

Moderators: **TBD**

Special plenary

Chairs: **Nicola Fusco, Vincenzo L'Imperio**

6.00 p.m. What will the future look like?
Daniel Truhn

6.40 p.m. End of Conference Day 1

6.40 p.m. ***General Assembly Meeting ESAC***

SCIENTIFIC PROGRAM
08 MAY 2026

8.30 a.m. **POSTER SESSION**
The participants will present their posters

Introduction

Moderator: **Filippo Pesapane, Leonardo Provenzano**

9.30 a.m. AI pros and cons: promises versus bottlenecks

Debate: **Marco Gustav, Marcello Restelli**

Session 6 *plenary*

ETHICS AND PATIENT-CENTERED RESEARCH

Chairs: **Helena Linardou, Marina Chiara Garassino, Alessandra Pedrocchi**

10.00 a.m. Patient autonomy, uncertainity human values, trust and distrust in an AI context
Delia Nicoara

10.15 a.m. AI in digital health, QoL and toxicity in pancancer patients treated with immunotherapy
Jarushka Naidoo

10.30 a.m. Balancing clinical utility and privacy concerns in data
Fidelia Cascini

10.45 a.m. How to design patient-centered, ethical clinical trials with AI: in immunotherapy and target therapies
Arsela Prelaj

11.00 a.m. Discussion

11.10 a.m. **Coffee Break**

Parallel Sessions

Session 7A

SYNTHETIC DATA AND SYNTHETIC PATIENTS

Chairs: **Alberto Traverso, Pietro Pinoli**

11.50 a.m. The promise of synthetic data: current evidence and limitations in the breast cancer setting
Oliver Diaz

12.05 p.m. Synthetic arms versus RWD arms versus control arms in trials
Debate: **Miriam Koopman, Rodrigo Dienstmann**

12.25 p.m. Multimodal synthetic data - how to generate images and omics in longitudinal fashion in breast and other cancers
Saverio D'Amico

12.40 p.m. Discussion

Session 7B

MULTIMODAL AND MULTI-AI

Chairs: Antonio Marra, Raquel Perez-Lopez

11.50 a.m. VLMs for treatment prediction in ovarian and kidney cancer
Zeyu Gao

12.05 p.m. Toward Clinically Deployable AI models: Safeguards Against Distribution Shifts
Jana Lipkova

12.20 p.m. LLMs for target and drug discovery: a personalized therapy for every single patient
Matteo Sacco

12.40 p.m. Discussion

1.00 p.m ----------**Lunch Break**----------

Session 8 plenary

MULTIOMICS AND FOUNDATION MODELS

Chairs: **Mireia Crispin Ortuzar, Giuseppe Curigliano**

2.00 p.m. Foundation models for multiomics and spatial omics applications in hematological diseases
Sizun Jiang

2.20 p.m. Pan-cancer multiomics science: how and when in the research and the clinical settings
Sohrab Shah

2.40 p.m. Technical and implementation challenges of AI in multi-omics research: cancers of unknown primary example
Julien Vibert

2.50 p.m. Discussion

Session 9 plenary

CLOSING SESSION AND PRIZES

Chairs: **Robert Lugowski, Luca Invernizzi, Marco Masseroli**

3.00 p.m. Computational biology and digital twins in breast cancer
Cristina Curtis

3.40 p.m. Best oral or 'honorable mentions' from poster evaluation

3.50 p.m. Best oral or 'honorable mentions' from poster evaluation

4.00 p.m. Poster Prize and ESAC Awards

4.20 p.m. AI in 2040: the light and dark side
Jakob Nikolas Kather

4.30 p.m. GoodBye Words
Arsela Prelaj, Jakob Nikolas Kather, *Presidents*