INTRODUCTION

In a remarkably short period of time, Artificial Intelligence (AI) has created what many have considered the Fourth Industrial Revolution. It has permeated virtually every area of human life. Medicine is no exception, and AI has proven a powerful aid to public health and patient care from governments and major institutions to the individual physician's office. AI simplifies what were once onerous administrative tasks but more importantly for the purposes of the practicing health care worker reviews the pathophysiology of an individual patient with remarkable efficiency, using evidence-based observations to create a helpful dialogue with the physician that suggests diagnosis and recommends therapy.

This symposium is intended for the clinician. Accordingly, it is prefaced with initial sessions that present an overview of the history, uses and limitations of AI in medicine. Subsequent presentations will provide detailed examples of how it is being used in medical subspecialties. A consideration of the principles for assessing the validity and quality of AI tools selected for clinical care will stress the crucial importance of the content and quality of the databases on which their conclusions and recommendations are based. A final interactive session with the audience will demonstrate the use of large language models (LLM) in actual cases.

Ultimately the symposium will provide new insight into which AI tools, based on an analysis of culturally relevant observations made on an appropriate cadre of subjects, are optimally useful for the unique requirements of the individual clinician.

Marianne Legato

CO-PRESIDENTS OF THE MEETING

Jeffrey Drazen
Marianne Legato
Michael A. Schmidt

CO-ORGANIZED BY:

FONDAZIONE
MENARINI

TUESDAY, 9th SEPTEMBER 2025 - MORNING

Chairpersons: **J. Drazen** (Boston, US),
M. Legato (New York, US), **M. A. Schmidt** (Denver, US)

09.00 a.m. - 09.30 a.m. Welcome and overview
M. Legato (New York, US)

SESSION I - OVERVIEW

Chairperson: **I. Kohane** (Boston, US)

09.30 a.m. - 10.00 a.m. The History of AI in Medicine
P. Szolovits (Cambridge, UK)

10.00 a.m. - 10.30 a.m. Classic AI Models in Medicine
A. Beam (Boston, US)

10.30 a.m. - 11.00 a.m. The Application of Large Language Models to Medical Practice
P. Lee (Redmond, US)

11.00 a.m. - 11.30 a.m. Discussion

11.30 a.m. - 11.50 a.m. *Coffee break*

Introduction: **G. Caracciolo** (Florence, IT),
M. A. Schmidt (Denver, US)

11.50 a.m. - 12.20 p.m. *Special lecture*: Discovery of the role of NO in human biology
L.J. Ignarro (Los Angeles, US)

SESSION II - AI IN HEALTHCARE

Chairperson: **C. Haug** (Oslo, NO)

12.20 p.m. - 12.50 p.m. Challenges and Opportunities for AI in Medicine and Healthcare
C. Haug (Oslo, NO)

Artificial Intelligence in Medicine

12.50 p.m. - 01.20 p.m.   AI and Patient Safety in Public Health
K. McDonald (Baltimore, US)

01.20 p.m. - 01.50 p.m.   Evaluation of AI solutions in health care organizations—the OPTICA tool
N. Dagan (Be'er Sheva, IL)

01.50 p.m. - 02.50 p.m.   *Lunch*

TUESDAY, 9th SEPTEMBER 2025 - AFTERNOON

SESSION III - CLINICAL SESSIONS

Chairperson: **F. Crea** (Rome, IT)

02.50 p.m. - 03.20 p.m.   Artificial Intelligence: Revolutionizing Cardiology with Large Language Models
F. Asselbergs (Amsterdam, NL)

03.20 p.m. - 03.50 p.m.   Multimodal Federated Learning & Image Synthesis In Cardiovascular Medicine
S. Engelhardt (Heidelberg, DE)

03.50 p.m. - 04.20 p.m.   Digital ECG and Echo Biomarkers: Unlocking Precision Diagnosis and Prognosis
E. Oikonomou (New Haven, US)

04.20 p.m. - 04.50 p.m.   Biodigital Twins: Applications in Alzheimer's Disease and Cardiology
T. Paterson (San Francisco, US)

04.50 p.m. - 05.10 p.m.   *Coffee Break*

SESSION IV - CLINICAL SESSIONS

Chairpersons: **L. Fabbri** (Ferrara, IT),
K. F. Rabe (Grosshansdorf, DE)

05.10 p.m. - 05.40 p.m.   Artificial Intelligence in Chronic Obstructive Pulmonary Disease
A. Agusti (Barcelona, ES)

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05.40 p.m. - 06.10 p.m.   Artificial Intelligence in Severe Asthma
S. Wenzel (Pittsburgh, US)

06.10 p.m. - 06.40 p.m.   Artificial Intelligence in Intensive Care
L. Celi (Boston, US)

06.40 p.m. - 07.00 p.m.   General Discussion

WEDNESDAY, 10ᵗʰ SEPTEMBER 2025 - MORNING

SESSION V - CLINICAL SESSIONS

Chairperson: **S. Del Prato** (Pisa, IT)

09.00 a.m. - 09.30 a.m.   Implications of Using AI-CDSS in Diabetes
A. Galderisi (New Haven, US)

09.30 a.m. - 10.00 a.m.   What Should AI-CDSS Deliver in Diabetes Care?
P. Schwarz (Dresden, DE)

10.00 a.m. - 10.30 a.m.   Can Type 1 Diabetes be Successfully Managed by AI?
B. Kovatchev (Charlottesville, US)

10.30 a.m. - 10.50 a.m.   *Coffee Break*

Chairperson: **J. Drazen** (Boston, US)

10.50 a.m. - 11.20 a.m.   AI Use in Dermatology
R. Daneshjou (Stanford, US)

11.20 a.m. - 11.50 a.m.   Democratizing Obstetric Ultrasound with AI
J. Stringer (Chapel Hill, US)

11.50 a.m. - 12.20 p.m.   AI in Radiology
P. Rajpurkar (Boston, US)

12.20 p.m. - 01.20 p.m.   *Lunch*

WEDNESDAY, 10th SEPTEMBER 2025 - AFTERNOON

SESSION VI - CLINICAL SESSIONS

Chairperson: **M. A. Schmidt** (Denver, US)

01.20 p.m. - 01.50 p.m.	Use of AI in Epilepsy **E. Donner** (Toronto, CA)
01.50 p.m. - 02.20 p.m.	AI in Depression **P. Pedrelli** (Boston, US)
02.20 p.m. - 02.50 p.m.	Principles of Assessing Quality and Validity of AI Tools for Clinical Adoption **J. Dudley** (New York, US)
02.50 p.m. - 03.10 p.m.	*Coffee break*
03.10 p.m. - 03.40 p.m.	Medical Artificial Intelligence and Human Values **A. Manrai** (Boston, US)
03.40 p.m. - 04.10 p.m.	AI and Gender **M. Legato** (New York, US)
04.10 p.m. - 04.40 p.m.	Biodigital Twins: A Tool for Research, Prediction, Training and Clinical Decision Support **M. A. Schmidt** (Denver, US)
04.40 p.m. - 05.10 p.m.	General discussion Live demonstration of LLM (two cases) **J. Drazen** (Boston, US)

Artificial Intelligence in Medicine

FACULTY

Agusti, Alvar — Professor of Medicine University of Barcelona
Barcelona, Spain

Asselbergs, Folkert — Chair, Amsterdam Heart Center, Department of Cardiology.
Amsterdam, Netherlands

Beam, Andrew — Assistant professor in the Department of Epidemiology at the Harvard TH Chan School of Public Health
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Celi, Leo Antony — Associate Professor of Medicine, Harvard Medical School
Senior Research Scientist, Massachusetts Institute of Technology
Boston, US

Crea, Filippo — Editor in Chief
European Heart Journal
Prof/Chair Cardiology Gemelli Isola Hospital Rome
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Daneshjou, Roxana — Assistant Professor of Biomedical Data Science and of Dermatology, Department of Biomedical Data Science, Stanford School of Medicine
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Artificial Intelligence in Medicine

Del Prato, Stefano

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Co-Lead, Garry Hurvitz Centre for Brain & Mental Health
Bloorview Children's Hospital Chair in Paediatric Neuroscience
Professor of Paediatrics, Temerty Faculty of Medicine, University of Toronto
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Artificial Intelligence in Medicine

Galderisi, Alfonso

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Haug, Charlotte

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Kovatchev, Boris

Madge M Jones Professor of Diabetes
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Fellow, National Academy of Inventors
Charlottesville, US

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Pedrelli, Paola	Associate Director, Depression Clinical Research Program Associate Professor, Harvard Medical School Massachusetts General Hospital Boston, US
Rabe, Klaus F.	Director LungenClinic Grosshansdorf Grosshansdorf, DE
Rajpurkar, Pranav	Assistant Professor of Biomedical Informatics, Harvard Medical School Boston, US
Schmidt, Michael Arthur	CEO & Chief Scientific Officer, Sovaris Aerospace Denver Professor of Aerospace Medicine, University of Central Florida College of Medicine Orlando, US

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Schwarz, Peter

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Prof. of Health Sciences and Technology
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Wenzel, Sally E.

Chair Department of Environmental and Occupational Health SPH
Professor of Medicine and Immunology
University of Pittsburgh
Pittsburgh, US

VIA WEBSITE AND/OR APP - HYBRID EVENT
Subscription to the Reserved Area and to the Event of your interest is required.
REGISTRATION IS FREE.

RESIDENTIAL EVENT
Via website **www.en.fondazione-menarini.it/Home**

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REGISTRATION - LIVE STREAMING

LIVE STREAMING
Via website www.en.fondazione-menarini.it/Home

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4) Visit the page of the congress of your interest:

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5) Confirm your registration by clicking on "SUBSCRIBE TO LIVE STREAMING", check the Privacy Notice and click on "ATTEND".

You can enjoy the LIVE STREAMING for free on 9th and 10th September 2025.

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REGISTRATION - FONDAZIONE APP

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LIVE STREAMING

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You can enjoy the LIVE STREAMING for free on 9th and 10th September 2025.

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Click on the red button REGISTER; to register in the reserved area, just fill in all the mandatory fields of the form.
Now it is necessary to log in with your username (email) and password! Then click on LOGIN.
Now you are logged-in to the APP (you will see your name near the user icon).
You can visit the schedule of the event, and click on the red button "SUBSCRIBE TO LIVE STREAMING", check the Privacy Notice and the confirm.
You can enjoy the LIVE STREAMING for free on 9th and 10th September 2025.

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Please feel free to contact us if you need any further information or require any assistance, by clicking on the link below:

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Artificial Intelligence in Medicine

GENERAL INFORMATION

VENUE
Aula Magna - Ospedale Isola Tiberina - Gemelli Isola,
Via di Ponte Quattro Capi 39, 00186 Roma.

OFFICIAL LANGUAGE
The official language of the meeting is English.

REGISTRATION HOURS FOR RESIDENTIAL EVENT
Attendance at the meeting is free.
For more information and to register please visit the following website:
www.en.fondazione-menarini.it/Home

Tuesday, 9th September 2025: 09:00 a.m. - 07.00 p.m.
Wednesday, 10th September 2025: 09:00 a.m. - 05.10 p.m.
Please note that times are expressed in Local time

FACULTY SLIDE CENTRE OPENING HOURS
The center will be open at the following times:
Tuesday, 9th September 2025: 09:00 a.m. - 06.40 p.m.
Wednesday, 10th September 2025: 09:00 a.m. - 05.50 p.m.
Please note that times are expressed in Local time

TECHNICAL FACILITIES
Facilities will be available for computer presentations and overhead projections.
A Slide Center with PCs (Windows and Macintosh operating systems) will be available for
Speakers to preview and finalize their presentations. Speakers are kindly requested to submit
their presentations to the Slide Center technicians at least one hour before their talks.

LUNCH AND COFFEE BREAKS
Lunch and coffee breaks will be served in the meeting area.

ATTENDANCE CERTIFICATE:
The attendance certificate will be provided via email after the meeting, upon request.

NOTES

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All slides and presentations are available on our website 15 days after the event.