"3rd ANTHEM Scientific Meeting on project progress"

13th-14th April 2026

Politecnico di Milano, Campus Bovisa

Aula De Carli - Building B9, Via Giovanni Durando 10, 20158

Abstract book oral presentation

Abstract book poster session

13th April 2026

9:00 - 9:30   **Registration & Welcome Coffee**

9:30 – 9:35   Welcome **Prof. Andrea Aliverti**, Politecnico di Milano

9:35 - 10:30   **Opening Session**

Prof. Donatella Sciuto, Rector of Politecnico di Milano

Prof. Alessandra Gallone, President of ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) and Snpa (Sistema nazionale della protezione ambientale), MUR representative

Prof. Antonio Zoccoli, President of National Institute for Nuclear Physics

Dr. Oscar Bianchi, President of AVIS Nazionale

Prof. Stefano Paleari, President of Fondazione Anthem

10:30 - 11:30   **Round Table: From Research to Social Impact: How to Accelerate Innovation in Healthcare**
Chair: Prof. Stefano Paleari, Fondazione Anthem

1- **Elisabetta Confalonieri,** Direzione Generale Università, Ricerca, Innovazione, Lombardy Region

2- **Luigi Calzolai,** Representative of the "Technologies for Health" unit of JRC (Joint Research Centre)

3- **Maria Chiara Carrozza,** Member of the European Commission's High-Level Expert Group for FP10 University of Milano-Bicocca

11:30 - 13:00   Poster Flash Presentations Cascade Funding (3 minutes each)
Chair: Giovanni Li Volti, Università degli Studi di Catania

13:00 - 15:00   Lunch & Poster Session

SESSION 1 — Environment, Respiratory Health & Chronic Disease Innovation
Chair: Andrea Aliverti, Politecnico di Milano

1. **15:00 - 15:15**   Inhaled dose of pollutants monitored via body sensor networks (Pilot 3.1)

    Angelucci Alessandra, Massone Pietro, Aliverti Andrea
    Politecnico di Milano

2. **15:15 - 15:30**   A Data-Driven AI Pipeline for Automated Coronary Disease Stratification and Functional Coronary Evaluation (Pilot 3.4)

    Alberto Redaelli Luca Mariani, Giulia Frigerio
    Department of Electronics Information and Bioengineering, Politecnico di Milano

    Ultra-High-Resolution Photon-Counting Detector CT Improves Diagnostic Confidence and Reduces Downstream Testing for Coronary Stent Evaluation: An Intra-Individual comparison with Energy-Integrating Detector CT

    Costanza Lisi, Federica Catapano, Laura M Bellada, Stefano Figliozzi, Giulio Stefanini, Andrea Laghi, Letterio S Politi, Marco Francone
    Humanitas University

3. **15:30 - 15:45**   Prevention and Screening of Left Ventricular Dysfunction in Val Brembana, Valle Imagna, Bergamo (BRIMBERG Study) (Pilot 2.2)

    Caravita Sergio[1], Claudia Baratto[1], Anna Marinucci[2], Michele Senni[3]
    [1] Università degli Studi di Bergamo
    [2] ASST Papa Giovanni XXIII Bergamo
    [3] Università degli Studi di Milano-Bicocca

SESSION 2 — Digital Health, AI Systems & Clinical Decision Support
Chair: Paolo Napoletano, Università degli Studi di Milano-Bicocca

4. **15:45 - 16:00**   Leveraging data for clinical decision support system and data management (Pilot 1.1)

    Mazzoleni Mirko[1], Besozzi Daniela[2], Caroli Anna[3], Cazzaniga Fabio[1], Stella Fabio[2]
    [1] Università degli Studi di Bergamo
    [2] Università degli Studi di Milano Bicocca
    [3] Istituto di Ricerche Farmacologiche Mario Negri IRCCS

5. **16:00 - 16:15**   **A Multilingual Digital Intake and Post-Triage Prioritization System for Emergency Departments (Pilot 1.2)**

Mattia Cattaneo et al., Università degli Studi di Bergamo

6. **16:15 - 16:30**   **Knowledge-guided recurrent neural networks for glucose-insulin dynamics modeling (Pilot 1.3)**

Stefano De Carli, Nicola Licini, Davide Previtali, Fabio Previdi, Antonio Ferramosca
Università degli Studi di Bergamo

7. **16:30 - 16:45**   **SmartCampus Health: A Digital Platform for Remote Monitoring of Populations in Mountain Communities within the ANTHEM Project (Pilot 2.6)**

Stefania Catalano[1], Giuseppe Piero Guido[1], Daniela Micucci[2], Paolo Napoletano[2]
[1] Università della Calabria
[2] Università degli Studi di Milano-Bicocca

8. **16:45 - 17:00**   **Timely genomic diagnosis for children with rare diseases toward precision medicine (Pilot 1.4)**

Iascone Maria Rosaria[1], Noris Marina[2], Remuzzi Andrea[3], Savo Domenico Fabio[3]
[1] ASST Papa Giovanni XXIII
[2] Istituto di ricerche farmacologiche Mario Negri
[3] Università degli Studi di Bergamo

SESSION 3 — Disease modelling & Genetic Insights
Chair: Emanuela Esposito, Università degli Studi di Messina

9. **17:00 - 17:15**   **Environmental Determinants on Human Health: A Breathing Lung-on-Chip Platform for Toxicological Assessment (Pilot 3.2)**

Aterini Bianca, Mantegazza Alberto, Ballerini Mattia, Lucifora Teresa, Occhetta Paola, Rasponi Marco
Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano

10. **17:15 - 17:30**   **Micro-computed tomography for virtual histology: cutting edge tools to investigate biological samples (Pilot 1.8)**

Bravin Alberto[1], Maurizio Santini[2], Guido Cavaletti[1]
[1] Università degli Studi di Milano-Bicocca
[2] Università degli Studi di Bergamo

11. **17:30 - 17:45**   **Time-Dependent Nrf2/NOX2 Imbalance in GBA Knock-In Model and clinical prospective for human Parkinson's DiseasePilot 1.7)**

Capra Anna Paola[1], Casili Giovanna[1], Ardizzone Alessio[2], Lanza Marika[1], Campolo Michela[1], Paterniti Irene[1], Esposito Emanuela[1]
[1] Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina
[2] UniCamillus-Saint Camillus International University of Health Sciences, Rome

19:30 Welcome cocktail - Società Umanitaria Chiostri di San Barnaba (Chiostro dei Pesci)

20:00 Buffet dinner - Società Umanitaria Chiostri di San Barnaba (Salone degli Affreschi)

14 aprile 2026

9:00 - 9:45   **Invited speaker Prof. Domenica Lorusso, Humanitas University**

"Bridging the Gap Between Research and Clinical Practice: Challenges and AI-Driven Solutions"

SESSION 4 — Wearables, Sensors & Connected Care
Chair: Marco Nalin, Abmedica S.p.A

12. 09:45 - 10:00   **Remote physical therapy and sensorized environments (Pilot 2.1)**

D. Ferrari[1], S. Mariani[3], S. Zini[2], G. Gallo[2], D. Marelli[2], F. Bergamini[2], R. Pigazzi[1], T. Barbera[2], D. Poterti[2], G. Croci[2], I.E. Stan[2], D. Micucci[2], P. Napoletano[2], D. Regazzoni[1], G. Marchetto[3], A. Vitali[1], C. Rizzi[1]

[1] Università di Bergamo, Dipartimento di Ingegneria Gestionale, dell'informazione e della Produzione

[2] Università di Milano Bicocca, Dipartimento di Informatica, sistemistica e comunicazione

[3] Fondazione IRCCS. Gerardo dei Tintori, Unità Operativa Struttura Complessa di Cardiochirurgia

13. 000 - 10:15   **Portable, wearable, and transdermal sensors for smart diagnostic (Pilot 2.3)**

Laura Russo[1], Marco Piazzoni[1], Francesca Cadamuro[1], Ilaria Borghi[1], Stefano Sanguinetti[1], Oksana Koplak[1], Matteo Canciani[1], Giorgia Rigamonti[1], Mirko Paolo Barbato[1], Davide Marelli[1], Paolo Napoletano[1], Giovanni Donato Gallo[1], Daniela Micucci[1], Gabriele Croci[1], Marcello De Matteis[1], Giuseppe Rosace[2]; Agnese D'Agostino[2], Raphael Rosa[2], Valerio Re[2], Antonio Russo[3], Guido Cavaletti[1]

[1]Università degli Studi di Milano-Bicocca; [2]Università degli Studi di Bergamo; [3]ATS Milano

14. 10:15 - 10:30   **Design and Development of a Dashboard for Remote Monitoring of Parkinson's Disease (Pilot 2.7)**

Chiara Morlotti, Mattia Cattaneo
Università degli Studi di Bergamo

15. 10:30 - 10:45   **Wide spectrum light and devices to sanitise surfaces and air Results and Perspectives (Pilot 2.4)**

Barni Ruggero[1], Trimukhe Ajinkya[1], Pal Dipak[1], Cavedon Marco[1], Martines Emilio[1], Khosravi Saeedeh[1], Riccardi Claudia[1]
[1] Dipartimento di Fisica G. Occhialini, Università degli Studi di Milano-Bicocca

16. 10:45 - 11:00   **Surfactant Protein D (SPD) based Point-Of-Care sensor for E.coli detection in solution and paper-based platforms exploiting smartphone microscopy (Pilot 2.5)**

Alessandro Colombo[1,4], Antonia Bruno[1], Farida Tripodi[1], Alice Armanni[1], Linda Barbieri[1], Sara Fumagalli[1], Hind Moukham[1], Giulia Tomaino[1], Ekaterina Kukushkina[2], Roberto Lorenzi[2], Letizia Marchesi[3], Angelo Monguzzi[2], Alberto Paleari[2], Alessandra Ronchi[2], Valeria Secchi[2], Laura Sironi[3,4] and Miriam Colombo[1,4]

[1] Department of Biotechnology and Biosciences, University of Milano-Bicocca, Milan, Italy
[2] Department of Materials Science, University of Milano-Bicocca, Milan, Italy
[3] Department of Physics, University of Milano-Bicocca, Milan, Italy
[4] Nanomedicine Center NANOMIB, University of Milano-Bicocca, Milan, Italy

11:00 - 11:30 Coffee break

SESSION 5 — Innovative Diagnostics, Imaging & Early Detection
Chair: Riccardo Levi, Humanitas Huniversity

17. 11:30 - 11:45   **Improved multi-source image based diagnostic for early cancer detectionion (Pilot 1.6)**

Domenico Parmeggiani, Università degli Studi della Campania "Luigi Vanvitelli"

18. 11:45 - 12:00   **Bridging the gap between digital and molecular pathology with advanced spatial omics (Pilot 1.5)**

Smith Andrew [1], L'Imperio Vincenzo[2], Besozzi Daniela[3] , Galimberti, Stefania[1] , Mattia Garancini[2], Magni, Fulvio[1] , Pagni Fabio[1]
[1] Department of Medicine and Surgery, University of Milano-Bicocca, Monza, Italy
[2] Fondazione IRCCS San Gerardo dei Tintori, Monza, Italy
[3] Department of Informatics, Systems and Communications, University of Milano-Bicocca, Milan, Italy

19. 12:00 - 12:15   **Development and characterization of carbon dot-loaded thermo-responsive chitosan-pluronic hydrogels for theranostic applications (Pilot 4.1)**

Rajabimashhadi Zahra, Pollini Mauro, Paladini Federica, Sannino Alessandro
Università del Salento

20. 12:15 - 12:30   **Diffuse optical spectroscopy for lung condition monitoring (Pilot 3.3)**

Serra Nicola, Maffeis Giulia, Cubeddu Rinaldo, Di Sieno Laura, Dalla Mora Alberto, Pifferi Antonio, Taroni Paola
Dipartimento di Fisica, Politecnico di Milano

Multidimensional lung imaging: integrated preclinical platforms enabling the identification of translational biomarkers for pulmonary research

Fabio Stellari, Chiesi Farmaceutici S.p.A.

21. 12:30 - 12:45   **Development of green optical microsensor of extracellular pH sensing (Pilot 4.2)**

Gallo Nunzia, Pollini Mauro, Paladini Federica, Sannino Alessandro
Università del Salento

22. 12:45 - 13:00   **Multimodal correlative microscopy for high-throughput and multiscale characterization of complex systems (Pilot 4.3)**

Pollini Mauro, Paladini Federica, Sannino Alessandro
Università del Salento

13:00 – 15:30   **Lunch & Poster Session**

SESSION 6 — Oncology, Radiobiology & Advanced Therapies
        Chair: **Fabio Stellari, Chiesi Farmaceutici S.p.A.**

23. 15:30 - 15:45   **Investigating metabolomic weakness for targeted sonoporation in glioblastoma treatment (Pilot 4.5)**

Amorini Angela Mara[1], Sofia Paola Lombardo[2], Tatiana Zuppeli[1] , Jessica Ferrigno[1], Giuseppe N. Conti[1], Emanuela Tropea[1], Lucia Longhitano[1], Konstantinos Partsinevelos[1], Francesco Bellia[1], N. Iraci[1], L. Leggio[1], Irene Paterniti[4], Giovanna Casili[4]. Stefano Forte [3], Giovanni Li Volti[1], Daniele Tibullo[1]
[1] Department of Biomedical and Biotechnological Sciences, University of Catania
[2] Istituto Oncologico del Mediterraneo
[3] Istituto Oncologico del Mediterraneo
[4] Department of Chemical Biological, Pharmaceutical, and Environmental Sciences, University of Messina

24. 15:45 - 16:00   **Innovative MSN nanocarriers for controlled and selective drug delivery (Pilot 4.6)**

Marzia De Santo[1], Marco Dattilo[2], Camilla Longobucco[2], Rocco Marina, [2], Francesco Puoci[2], Catia Morelli[2], Antonella Leggio[2], Luigi Pasqua[2]
[1] NanoSiliCal Devices s.r.l.
[2] Università della Calabria

25. 16:00 - 16:15   **Phosphoglycerate Dehydrogenase (PHGDH) as a Potential Therapeutic Target in Adrenocortical Carcinoma: Insights from Dynamic 3D Tumor Models (Pilot 4.7)**

Avena Paola[1], Hamad Tarig Ahmed Ibrahim[1], Zavaglia Lucia[1], Giordano Francesca[1], Curcio Manuela[1], Cirillo Giuseppe[1], Sirianni Rosa[1], Pezzi Vincenzo[1], Maggiolini Marcello[1], Casaburi Ivan[1]
[1] Department of Pharmacy and Health and Nutritional Sciences, University of Calabria

26. 16:15 - 16:30   **Realisation of a Boron Neutron Capture Therapy (BNCT) facility in Caserta (Pilot 4.9)**

G. Paolisso & G. De Matteis on behalf of all Pilot 4.9 researchers of Università degli Studi della Campania "Luigi Vanvitelli"
A. Pisent & V. Vercesi on behalf of all Pilot 4.9 researchers of Istituto Nazionale di Fisica Nucleare

27. 16:30 - 16:45   **Integrating FLASH Radiotherapy with Metabolic Targeting to Overcome Glioblastoma Stress Adaptation (Pilot 4.4)**

Nunzio Vicario[1], Anna Gervasi[1], Simona Denaro[1], Simona D'Aprile[1], Stefania Mele[2], Maria Gabriella Sabini[2], Francesco P. Cammarata[3,4], Giorgio Russo[3,4], Roberto Catalano[3], Giuseppe A.P. Cirrone[3], Giacomo Cuttone[3], Gaetano Magro[5], Angela Maria Amorini[1], Daniele Tibullo[1], Giovanni Li Volti[1], Rosalba Parenti[1].
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[4]Institute of Bioimaging and Complex Biological Systems, National Research Council, 90015, Cefalù;
[5]Department of Medical and Surgical Sciences and Advanced Technologies, F. Ingrassia, University of Catania, Catania

28. 16:45 – 17:00   **AI-Based Unsupervised Feature Selection for High-Dimensional Omics Data (Pilot 4.8)**

Elka Segura, Sabrina Giordano, Carlo Adornetto
Università della Calabria

17:00 – 17:15   **Closing remarks – Prof. Guido Cavaletti,** Chief Scientist, Anthem Foundation