



Call for papers

Workshop: AIPHEA - AI in Predictive HEAlth: architectures for prevention

Conference: 2026 IEEE International Joint Conference on Neural Networks, World Congress on Computational Intelligence

21 JUNE - 26 JUNE | MECC Maastricht, the Netherlands

Website: <https://sites.google.com/community.unipa.it/aiphea26/home-page>

Organizers

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Motivation and Scope

Healthcare is undergoing a paradigm shift: moving from treating diseases to proactively preventing them. Machine Learning models and Neural Networks are becoming essential tools in this process, unlocking new ways to interpret complex and diverse medical data generated as healthcare systems continue to digitalize. Our workshop, "*AIPHEA - AI in Predictive HEAlth: architectures for prevention*", is designed to serve as a meeting point for researchers, clinicians, and engineers shaping this emerging field. We aim to explore the latest neural network architectures and machine learning models, focusing on their tangible impact in early diagnosis and disease prevention.

Sessions will cover a broad range of applications, including models for visual data analysis (medical scans), sequential patient data, and multi-modal integration of clinical and genomic information. We will balance practical solutions for real-world clinical challenges with discussions on next-generation theoretical models, fostering a bridge between research innovation and robust, trustworthy clinical tools.

Topics of Interest

We welcome original contributions on, but not limited to, the following topics:

- **Identify State-of-the-Art Architectures:** Recognize and describe the latest neural network architectures being successfully applied to various data types (imaging, sequential, and graph-based) for predictive health.
- **Understand Application Challenges:** Grasp the primary challenges associated with deploying neural networks in clinical settings, including data heterogeneity, model interpretability (XAI), and regulatory hurdles.
- **Applications in Bioinformatics and Computational Biology:** Explore the use of ML models for analyzing complex biological data, including genomic, proteomic, and metabolomic datasets.
- **Biomarker Discovery:** Investigate methods for identifying novel biomarkers from diverse biomedical data using machine learning techniques.
- **Novel Datasets, Anonymization, and Synthetic Data:** Discuss the presentation of new biomedical datasets, challenges in anonymization, and the generation of synthetic data for training robust models
- **Evaluate Model Suitability:** Critically assess which types of neural models are best suited for specific clinical problems in early diagnosis and disease prevention.
- **Foster Cross-Disciplinary Collaboration:** Engage in meaningful dialogue with experts from both the machine learning and medical fields to spark new ideas and collaborations.
- **Pinpoint Future Research Directions:** Identify promising open problems and emerging trends in the field that will shape the future of neural networks in preventative medicine.

Instruction for Authors

Authors are invited to submit original research papers related to the topics of the workshop. Submissions should follow these guidelines:

1. **Originality:** Submissions must present original work and must not be under review elsewhere.
2. **Papers must adhere to the [CEURART](#) format.**
3. **Length:** Authors are invited to submit a regular paper with at least 10 "standard" pages (1 standard page = 2500 characters) and an appropriate number of references.
4. The papers must be submitted using the following link:
<https://easychair.org/conferences/?conf=aiphea26>

Accepted papers will be submitted for publication in a proceedings volume of CEUR-WS. Submissions must follow the CEUR-WS guidelines.

A selected number of high-quality papers will be proposed for an extension in a Q1 International Journal special issue.

Important Dates

Article Submission Opens: 31 January 2026

Workshop Paper Submission Deadline: 20 March 2026

Paper Acceptance Notification: 31 March 2026

Camera-Ready Paper Submission Deadline: 1 May 2026

Early Registration Deadline: 1 May 2026

Workshop Date: Available soon (Conference Date 21-26 June 2026)

For further information, feel free to contact the organizers at domenico.amato01@unipa.it or francesco.prinzi@unipa.it.