

Francesco Andrea Causio

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Research Interests: Health Systems Design · Machine Learning Systems Design · Agentic Workflows
· Digital Health · Personalized Medicine

Education and Training

Master of Applied Science in Computer Science

Aug 2025 – May 2027

University of Pennsylvania, Philadelphia, PA

- GPA: 3.96
- Concepts & Languages: Software Development, OOP, Data Structures & Algorithms, Python, TypeScript
- Vice President for Research at Claude Builder Club (funded by Anthropic)
- Venture Incubation Program at Penn Venture Lab
- Finalist at Claude Builder Club Hackathon
- Penn's Widjaja Engineering Entrepreneurship Fellow: selected among 50+ applicants for a work-study program in technology venture leadership

Resident Medical Officer in Hygiene and Preventive Medicine

Jan 2021 – Jan 2025

Università Cattolica del Sacro Cuore, Rome, Italy

- Graduated with honors (50/50 cum laude) defending a thesis on policymaking in personalized medicine
- Technical tasks in European projects on public health, digital health, personalized medicine
- Contributed to ALTEMS Instant Report 36, monitoring COVID-19 testing strategies and public health policies across Italian regions
- In-hospital activities at Fondazione Policlinico Gemelli (medical direction: information flow tracking and adoption of digitized medical record); Ospedale Fatebenefratelli Isola Tiberina - Gemelli Isola (hospital management: alignment with European standards for data creation, labeling, and exchange; hospital procedures for urgent care and emergency)

Master's Degree in Epidemiology and Biostatistics

Mar 2023 – Oct 2023

Università Cattolica del Sacro Cuore, Rome, Italy

- Graduated top of class with GPA 30/30 with honors
- Scholarship from the IC2PerMed Consortium due to outstanding research achievements
- Defended a thesis analyzing a 6,581-person sample to identify attitudes towards digital health and data sharing

Doctor of Medicine (M.D.)

Oct 2013 – Jul 2019

Università Cattolica del Sacro Cuore, Rome, Italy

- Graduated with honours (110/110 cum laude), defending a thesis on Public Health and Preventive Medicine
- Fifth year completed in Germany under Erasmus+ scholarship
- EQF level 6

Community Hospital Medical Direction - Graduate Course

Mar 2022 – Nov 2022

Università Cattolica del Sacro Cuore, Rome, Italy

Leadership in Medicine - Graduate Course

Feb 2020 – Nov 2020

Università Cattolica del Sacro Cuore Education on leadership practices with a peculiar focus on the field of medicine: public speaking, smart leadership and medical pathway analysis

High School Diploma (Classical Studies)

Aug 2008 – Jul 2013

Liceo Classico Socrate, Bari, Italy Final score: 94/100 (EQF level 4)

Work Experience

Software Engineer

May 18, 2026 – Aug 21, 2026

Superscript

- Architected an explainability platform to surface algorithmic decision rationale and support human-in-the-loop oversight of model-driven outputs
- Designed and deployed agentic AI workflows to parallelize reactive changes across the codebase, accelerating iteration cycles and reducing bottlenecks
- Bridged technical knowledge gaps across engineering pods, enabling cross-functional alignment and more consistent coding standards
- Contributions collectively drove up to 15% improvement in model accuracy and up to 98% reduction in data drops across existing issues in the codebase and database

Student Worker

Oct 2025 – Dec 2025

University of Pennsylvania, Philadelphia, PA Hosted workshops on healthy eating at William L. Sayre High School in West Philadelphia

Tech Consultant

Mar 2025 – Jul 2025

Fondazione ENI Enrico Mattei, Rome, Italy

- Designed and integrated a Python-powered RAG chatbot into an existing health app to improve adherence to healthy lifestyles
- First pilot: 95% increase in user comprehension and a 70% favorable user opinion rating

Vice-President

Sep 2023 – Jul 2025

Società Italiana Intelligenza Artificiale in Medicina (SIAM), Rome, Italy

- Co-lead the not-for-profit, professional association with over 500 members, bridging the gap between professionals working in healthcare and AI
- Coordinate educational and research activities, including the development of AI models for clinical decision support
- Scientific Director of the "Ethics and Governance of AI in Medicine" (FAD course)
- **Research Contributions:**
 - Published a machine-learning algorithm to predict disease in bladder cancer patients (300+ patients)
 - Awarded the 2025 Early-Career Researcher Award by Journal of Medical Informatics
 - Open-sourced EuropeMedQA - largest European multilingual medical QA dataset for LLM benchmarking
 - Best Presentation Award at the Workshop for Multimodal Representation Learning for Healthcare at NeurIPS 2025
 - Conducted comparative analysis of Chain of Thought (CoT) reasoning across Deepseek, Grok, Gemini, and Claude models, evaluating consistency and medical reasoning appropriateness

Researcher

Mar 2023 – Jul 2025

Brand-New Health Foundation, Rome, Italy

- Carrying out research on Artificial Intelligence and Digital Health
- WHO Partner on the Strategic Partners' Initiative for Data and Digital Health (SPI-DDH)
- Expert under the WHO Regional Office for Europe's Knowledge Community on Responsible AI in Health (Sep 2025 – ongoing)

Scientific Advisor

Sep 2023 – Jul 2024

Babyndex, Budapest, Hungary

- Using Artificial Intelligence to predict fertility windows using a pocket microscope
- Designing a study to apply for funding
- Website: <https://www.babyndex.eu/en/>

Medical Doctor

May 2022 – Jul 2025

Nuova Clinica Annunziatella, Rome, Italy

- Palliative care for terminally ill patients. Emotional support and care for both patients and their relatives

- Night shifts include taking care of surgical patients (abdominal surgery, urology, diabetology)

Course Coordinator of the "Leadership in Medicine" Course

Nov 2020 – Jul 2025

Università Cattolica del Sacro Cuore, Rome, Italy

- Providing personalized guidance to students to meet their unique learning needs and challenges
- Effectively collaborate with both students and faculty members to facilitate a productive educational experience

Vaccination Doctor

May 2021 – Feb 2022

Gemelli Hospital, Rome, Italy Patient evaluation. Vaccine administration. Organization of related processes and methodology

External Consultant

Nov 2021 – Feb 2022

IBM, Milan, Italy Consultancy in building a health monitoring app and related services for a client, as a part of the UCSC team. IBM was in charge of building the technical infrastructure, the UCSC team took care of the scientific coordination side

Medical Doctor

Aug 2019 – Jan 2021

Centro Medico San Luca, Bari, Italy

Famulantarzt (Working Student)

Feb 2018 – Mar 2018

DRK Kliniken Mitte, Berlin, Germany

Board Member

Oct 2024 – Jul 2025

MedNTech, Washington DC, United States Board member of a digital health startup improving early cervical cancer diagnosis

Personal Projects

Monolith - Founder

- AI-native publishing journal born to tackle the publish or perish crisis
- Incubated by University of Pennsylvania Venture Lab
- Awarded grant from University of Pennsylvania Venture Lab for AI-driven research platform development

TetaCare - Founder

Apr 2024 – Jan 2025

- Architected an AI-driven well-being tracker
- Built an RAG library to generate patient action recommendations
- Drove pilot launch to 500+ daily interactions
- Won 2nd place among 50 startups in RYLA Rotary Youth Leadership Award competition

Curiosa COVID-19 Chatbot - Founder

Mar 2020 – Dec 2020

- Used Python to design and deploy a chatbot serving 100+ users for accessing verified information during the COVID-19 pandemic
- Provided reliable health information during critical early pandemic period

Fellowships and International Exchange Programs

Young Innovators Club

Sep 2023 – Jul 2025

World Health Organization Lectures and consultancy on innovative health approaches, digital health and artificial intelligence in healthcare

Visiting Scholar

May 2023 – Jun 2023

University Medical Center Amsterdam (UMC), Amsterdam, Netherlands

- Scholarship from the ExACT Consortium
- Research on citizens' attitudes towards health data sharing and personalized medicine

- Statistical analysis and policy mapping on the results of a survey investigating these topics
- Results included in a deliverable shared with the European Commission and a policy brief

Visiting Resident

Oct 2022 – Feb 2023

Italian National Health Institute and Italian Ministry of Health, Rome, Italy

- Support in the Joint Action on Cancer and NCDs - preventive action on health determinants
- Focus on personalized prevention and digital technologies
- Technical consultancy on the creation of a National Health Prevention Hub
- Confrontation with the consultancy firm Intellera/PwC

Intern

Feb 2020 – May 2020

Amsterdam Institute for Global Health and Development (AIGHD) (Remote) Systematic review on the effects of interventions in mothers and their effect on neuro-development in their children

Erasmus Student

Sep 2017 – Jul 2018

Charité Universitätsmedizin (Faculty of Medicine and Surgery), Berlin, Germany

Exchange Student

Jun 2012 – Aug 2012

Terenure College, Dublin, Ireland

InnovAction in Healthcare IAC - Seasonal School

Nov 2020

Scuola Superiore Sant'Anna Innovative practices in medicine: lean data analysis, medical pathways and performance improvement in healthcare

Enrico Letta's School of Policymaking

Sep 2020 – Jun 2021

HelloAIris EIT Healthcare Training

Jun 2020 – Sep 2020

GE Healthcare Introduction to Artificial Intelligence, Big Data, machine learning and their functions in different fields of medicine

Basic Life Support and Defibrillation (BLSD)

Gemelli University Hospital, Rome, Italy

Clinical Internships

Intern at Department of Public Health

Aug 2018 – Jan 2021

Catholic University of Sacred Heart, Rome, Italy

Intern at Department of Metabolic Diseases and Medical Genetics

Jul 2016 – Sep 2016

Giovanni XXIII Pediatric Hospital, Bari, Italy

Intern at the Institute of General Pathology - Immunology

Sep 2015 – Jul 2016

Università Cattolica del Sacro Cuore, Rome, Italy

Intern at the Institute of Human Anatomy and Cellular Biology

May 2015 – Jul 2016

Università Cattolica del Sacro Cuore, Rome, Italy

European Research Projects

EIRISS – Etica e Intelligenza Artificiale nella Ricerca in Sanità

Jan 2026 – ongoing

Italian National Health Institute (ISS) Expert panel member developing ethical recommendations for responsible use of artificial intelligence in health research. Multidisciplinary collaboration addressing AI development, experimentation/validation, and research tool application. Methodological approach: Nominal Group Technique (NGT), literature review, and modified Delphi consensus-building process. Focus areas: data ethics, algorithmic transparency, bias mitigation, informed consent, research integrity, and equity in AI implementation

DigitAI lifelong pREvention (DARE)

Dec 2022 – Jul 2025

DARE involves a wide community of partners and stakeholders, including universities, research centers, research hospitals, local health authorities, foundations, and private companies. The initiative aims

to create and develop a connected and distributed knowledge community that fosters the emergence of models and solutions for surveillance, prevention, health promotion, and healthcare safety in the general population and special populations

Genomic Data Infrastructure (GDI)

Nov 2022 – Jul 2025

The Genomic Data Infrastructure (GDI) project is enabling access to genomic and related phenotypic and clinical data across Europe. It is doing this by establishing a federated, sustainable and secure infrastructure to access the data. It builds on the outputs of the Beyond 1 Million Genomes (B1MG) project and is realising the ambition of the 1+Million Genomes (1+MG) initiative

PROPHET - A Personalized Prevention Roadmap

Sep 2022 – Jul 2025

PROPHET – a PeRsOnalised Prevention roadmap for the future HEalThcare" will develop a Strategic Research and Innovation Agenda (SRIA) for Personalised Prevention, in order to support the implementation of innovative, sustainable and effective personalised programmes to prevent common chronic diseases

Integrating China in the International Consortium for Personalised Medicine (IC2PerMed)

Jan 2020 – Dec 2023

IC2PerMed project aims to support EU-China collaboration over the developments of Personalised Medicine research, innovations and policies through the ICPeMed initiative, providing people with access to personalised, smart and inclusive healthcare solutions

European network staff eXchange for integrAting precision health in the Health care SysTems (ExACT)

Jan 2019 – Aug 2023

The ExACT consortium is aimed at building a community of academic and non-academic institutions that generates high quality, multidisciplinary collaboration by exchanging knowledge in research and training activities on precision health

CCM 2021: Italian Genomic Strategy

Dec 2021 – Jun 2024

Support for European initiatives 1+MG and B1MG and activities carried out by the Interinstitutional Coordination for Genomics, for the development of technical-programmatic documents in the field of genomic interest in Public Health

Beyond 1 Million Genomes (B1MG)

Jan 2018 – Dec 2022

The B1MG project is helping to create a network of genetic and clinical data across Europe. The project provides coordination and support to the 1+ Million Genomes Initiative (1+MG)

PartnERship to Contrast HPV (PERCH)

Oct 2022 – Dec 2023

PERCH contributes to the implementation of Europe's Beating Cancer Plan, which aims to support Member States' efforts to extend the roll-out of routine HPV vaccination to eliminate cervical cancer and other cancers caused by HPV

Joint Action Prevent Non-Communicable Diseases (JA PreventNCD)

Jan 2024 – Dec 2027

EU-cofunded Joint Action involving 100+ partners from 25 countries to reduce the cancer and NCD burden through coordinated strategies on health determinants, focusing on effective policies and both societal and personal risk factors

Language Skills

Italian: Mother tongue

English: C1 (Proficient in all areas)

German: C1 (Proficient in all areas)

Spanish: B2 (Independent user)

French: A2 (Basic user)

Networks and Memberships

Erasmus Student Network

Aug 2019 – Jul 2025

Italian Society of Human Genetics (SIGU)

Experimental Medicine Training Initiative - University of Cambridge

Segretariato Italiano Giovani Medici (SIGM)

Mar 2020 – Jul 2025

"Francesco Olgiati" Non-Profit Blood Donor Association

Società Italiana di Igiene - Italian Hygiene Society

Jan 2021 – Jul 2025

Fondazione Talento all'Opera

Visionari.org

Feb 2021 – Jul 2025

Non-profit association spreading scientific knowledge through social networks, Youtube, podcasts

European Public Health Association (EUPHA)

Jan 2021 – Jul 2025

Young World Federation of Public Health Associations - Operations and Project Officer

May 2023 – Jul 2025

- Coordinating ongoing projects and catalyzing existing resources into opportunities for personal development to young public health professionals globally
- Digital literacy and health literacy as determinants of health
- Survey on young public health professionals' views and needs
- Young WFPHA position paper on public health professionals' role in the future of public health
- Participation in activities of the Climate X Health Initiative

Coalition for Independent Technology Research

Jun 2023 – Jul 2025

Global Burden of Disease Collaborator Network

Apr 2023 – Jul 2025

European Institute of Technology - EIT

Sep 2020 – Jul 2025

EIT Alumni Nodes, EIT Health Innovators Community

WHO EVID-Action Youth Alcohol Network

Nov 2023 – Jul 2025

Setting up a strategy to fight alcohol addiction under a public health perspective, using digital tools including social media and AI prediction tools

Publications

Bibliometric Indicators (August 2026):

- Total publications (Google Scholar): 76
- H-index (Google Scholar): 14
- H-index (Scopus): 11
- Total citations (Google Scholar): 682
- Citations (Scopus): 424

Selected Peer-Reviewed Publications

2026

[1] **Causio FA**, De Vita V, Nappi A, Sawaya M, Rocco B, Foschi N, Maioriello G, Russo P. Survival Prediction in Patients With Bladder Cancer Undergoing Radical Cystectomy Using a Machine Learning Algorithm: Retrospective Single-Center Study. *JMIR Perioperative Medicine*. 2026;9:e86666. [doi:10.2196/86666](https://doi.org/10.2196/86666)

[2] **Causio FA**, Beccia F, Calabrò GE, Kreeftenberg LL, Pastorino R, van El C, et al. Knowledge and attitudes of personalized medicine, genetic testing, and health data sharing: a comprehensive survey in the European Union. *Journal of Public Health Policy*. 2026. [doi:10.1057/s41271-025-00619-0](https://doi.org/10.1057/s41271-025-00619-0)

[3] Di Pumpo M, **Causio FA**, Boccia S, Ricciardi W. The double-edged sword of automation and the risks of AI's uneven impact on healthcare professions: a comment on the OECD artificial intelligence

- papers report. *Annali dell'Istituto Superiore di Sanità*. 2026;62(1):13-15. doi:10.4415/ANN_26_01_04
- [4] Beccia F, **Causio FA**, Porcelli M, Proto L, Calabrò GE, van El C, Boccia S, Pastorino R. Awareness and perceived educational needs regarding personalised medicine: Cross-country differences from a European survey. *Public Health*. 2026;257:106381. doi:10.1016/j.puhe.2026.106381
- [42] Villani L, Russo L, **Causio FA**, Savoia C, Pastorino R, De Waure C, Ricciardi W, Boccia S. Trends in childhood vaccination coverage in the European Union, 1980–2024: an ecological time-series study. *The Lancet Regional Health – Europe*. 2026. doi:10.1016/j.lanepe.2026.101834
- 2025**
- [5] **Causio FA**, Farina S, et al. The Italian national genomic strategy: current status, challenges, and future perspectives in clinical practice and public health. *Journal of Community Genetics*. 2025;16:699-703. doi:10.1007/s12687-025-00828-w
- [6] **Causio FA**, Gentili A, Beccia F, De Maio L, Melnyk A, Quaranta G, Russo L, et al. A Survey on Italian General Practitioners' Perspectives Regarding the Reorganization of Primary Care Services. *Annali di Igiene: Medicina Preventiva e di Comunità*. 2025;37(6):730-736. doi:10.7416/ai.2025.2695
- [7] Beccia F, **Causio FA**, Di Marcantonio M, Hoxhaj I, Cadeddu C, Campagno M, et al. A roadmap for personalized medicine: the findings of the IC2PerMed project. *Frontiers in Medicine*. 2025;12:1572921. doi:10.3389/fmed.2025.1572921
- [8] **Causio FA**, Golinelli D, Diedenhofen G, Silenzi A, Ferro D, Baglivo F. Fragmented but evolving: a response to the editorial “the Italian health data system is broken”. *The Lancet Regional Health – Europe*. 2025;51:101256. doi:10.1016/j.lanepe.2025.101256
- [9] Villani L, **Causio FA**, Savoia C, Pastorino R, Ricciardi W, Boccia S, et al. Trends in pediatric vaccination coverage in Italy from 2000 to 2023. *European Journal of Public Health*. 2025;35(4):781-787. doi:10.1093/eurpub/ckaf107
- [10] Baglivo F, Diedenhofen G, De Angelis L, Pivetta A, **Causio FA**, D'Ambrosio A, et al. (SIIAM). Why tomorrow's public health needs to be digital: artificial intelligence and automation for a sustainable Italian National Health Service. *Recenti Progressi in Medicina*. 2025;116(10). doi:10.1701/4573.45775
- [11] Sacchi F, Cascini F, Conditì N, Ravizza A, Daverio M, **Causio FA**, et al. (SIIAM). The path to trustworthy medical AI: the evolving role of explainability. *Recenti Progressi in Medicina*. 2025;116(10). doi:10.1701/4573.45774
- [12] De Angelis L, Pivetta A, Baglivo F, Cappellini L, Sacchi F, Di Pumpo M, Mercier M, Diedenhofen G, Di Bartolomeo M, **Causio FA**, et al. (SIIAM). Towards learning healthcare systems in Italy: opportunities and challenges of AI at point-of-care. *Recenti Progressi in Medicina*. 2025;116(10). doi:10.1701/4573.45776
- [13] Ferro D, Baglivo F, De Angelis L, **Causio FA**, Di Pumpo M, Sacchi FA, Diedenhofen G, Pivetta A, Belpiede A, Tozzi AE. (SIIAM). Making the case for digital twins: Italian healthcare needs AI-driven predictive modeling for personalized medicine. *Recenti Progressi in Medicina*. 2025;116(10):561-566. doi:10.1701/4573.45777
- [14] Osti T, Savoia C, Farina S, Beccia F, **Causio FA**, Wang L, Wang W, Fotino C, Cadeddu C, Ricciardi W, Boccia S. Advancing personalized medicine: key priorities for clinical studies and funding systems based on a Europe-China collaborative Delphi survey. *European Journal of Public Health*. 2025;35(2):209-215. doi:10.1093/eurpub/ckaf004
- [15] **Causio FA**, Beccia F, Tona DM, Verduchi A, Cristiano A, Calabrò GE, Pastorino R, van El C, Boccia S. Public perceptions and engagement in mHealth: a European survey on attitudes toward health apps use and data sharing. *European Journal of Public Health*. 2025;35(3):401-406. doi:10.1093/eurpub/ckaf036
- [16] Riccomi O, **Causio FA**, De Vita V, Cristiano A, Del Medico M, De Mori L, Battipaglia C, Sawaya M, De Angelis L, Di Pumpo M, Piscitelli A, Risuleo PE, Vojvodic G, Destro Castaniti B, Scarsi N. Valutazione one-shot di Mistral7B sul nuovo benchmark EuropeMedQA [One-shot evaluation of Mistral7B on the new EuropeMedQA benchmark]. *Recenti Progressi in Medicina*. 2025;116(10):619-620. doi:10.1701/4573.45804
- [17] De Vita V, Destro Castaniti B, Vassalli M, De Mori L, Lacalaprice D, Arcà E, Cristiano A,

- Battipaglia C, Risuleo PE, Dionisi T, **Causio FA**. Valutazione del ragionamento clinico dei reasoning large language models su casi clinici complessi [Evaluation of clinical reasoning of reasoning large language models on complex clinical cases]. *Recenti Progressi in Medicina*. 2025;116(10):599-600. doi:10.1701/4573.45794
- [18] Pincioli T, De Angelis L, **Causio FA**, Iacuzio A, Grieco V, Agrimi E, Traglia F, Valetto MR, Dri P, Naldi L. Accuratezza e affidabilità di GPT-4 nel rispondere alle domande dei pazienti su malattie dermatologiche: uno studio sul ruolo dell'intelligenza artificiale nell'assistenza digitale ai pazienti [Accuracy and reliability of GPT-4 in answering patient questions on dermatological diseases: a study on the role of AI in digital patient care]. *Recenti Progressi in Medicina*. 2025;116(10):597-598. doi:10.1701/4573.45793
- [19] Felizzi F, Riccomi O, Ferramola M, **Causio FA**, Del Medico M, De Vita V, De Mori L, Piscitelli A, Risuleo PE, Destro Castaniti B, Cristiano A, Longo A, De Angelis L, Vassalli M, Di Pumpo M. Are Large Vision Language Models Truly Grounded in Medical Images? Evidence from Italian Clinical Visual Question Answering. Accepted at the *Workshop on Multimodal Representation Learning for Healthcare (MMRL4H)*, *NeurIPS 2025*. **Best Presentation Award**. arXiv:2511.19220.
- [20] **Causio FA**, Pappalardo C, Palazzo S, Barneschi C, Sacchi FA, Ravizza A, et al. AI Prescription Systems Automation: Regulatory and Educational Challenges in the USA and Europe. *SSM - Health Systems*. 2025;5:100115. doi:10.1016/j.ssmhs.2025.100115
2024
- [21] Mazzotta AD, Burti E, **Causio FA**, et al. Machine Learning Approaches for the Prediction of Postoperative Major Complications in Patients Undergoing Surgery for Bowel Obstruction. *Journal of Personalized Medicine*. 2024;14(10):1043. doi:10.3390/jpm14101043
- [22] **Causio FA**, De Angelis L, Diedenhofen G, Talio A, Baglivo F, SIIAM. Perspectives on AI use in medicine: views of the Italian Society of Artificial Intelligence in Medicine. *Journal of Preventive Medicine and Hygiene*. 2024;65(2). doi:10.15167/2421-4248/jpmh2024.65.2.3261
- [23] Beccia F, Di Marcantonio M, **Causio FA**, et al. Integrating China in the International Consortium for Personalised Medicine: a position paper on innovation and digitalization in Personalized Medicine. *BMC Public Health*. 2024;24(1):464. doi:10.1186/s12889-024-18009-8
- [24] **Causio FA**, Beccia F, Hoxhaj I, et al. Integrating China in the International Consortium for Personalized Medicine: A Position Paper on Personalized Medicine in Sustainable Healthcare. *Public Health Genomics*. 2024;27(1):1-11. doi:10.1159/000534010
- [25] Di Sarno L, Caroselli A, Tonin G, Graglia B, Pansini V, **Causio FA**, et al. Artificial Intelligence in Pediatric Emergency Medicine: Applications, Challenges, and Future Perspectives. *Biomedicines*. 2024;12(6):1220. doi:10.3390/biomedicines12061220
- [26] Di Sarno L, Caroselli A, Graglia B, **Causio FA**, Gatto A, Pansini V, Di Vizio NC, Chiaretti A. Pediatric Bell's Palsy: Prognostic Factors, Management Strategy, and Treatment Outcomes. *Journal of Clinical Medicine*. 2024;14(1):79. doi:10.3390/jcm14010079
- [27] **Causio FA**, Beccia F, Kreeftenberg LL, Calabrò GE, Pastorino R, Boccia S, van El C. European survey: citizens' attitudes on personalized medicine, genetic testing and health data sharing – design and delivery. *Personalized Medicine*. 2024;21(3):163-166. doi:10.1080/17410541.2024.2342770
- [28] Calabrò GE, **Causio FA**, Pires Marafon D, Sassano M, Moccia F, Pastorino R, Boccia S. Public attitudes, knowledge and educational needs toward genetic testing and omics sciences: a pilot survey conducted in Italy. *European Journal of Public Health*. 2024;34(1):75-78. doi:10.1093/eurpub/ckad189
2023
- [29] **Causio FA**, Hoxhaj I, Beccia F, et al. Research and innovation in personalized medicine: a descriptive synthesis of actors in the EU and China. *Personalized Medicine*. 2023;20(3):227-238. doi:10.2217/pme-2023-0003
- [30] Cascini F, Gentili A, Melnyk A, Beccia F, **Causio FA**, et al. A new digital model for the Italian Integrated Home Care: strengths, barriers, and future implications. *Frontiers in Public Health*. 2023;11:1292442. doi:10.3389/fpubh.2023.1292442
- [31] Cascini F, Gentili A, **Causio FA**, et al. Strengthening and promoting digital health practice:

results from a Global Digital Health Partnership’s survey. *Frontiers in Public Health*. 2023;11:1147210. doi:10.3389/fpubh.2023.1147210

[32] Beccia F, **Causio FA**, Hoxhaj I, et al. Integrating China in the International Consortium for Personalised Medicine: a position paper on healthcare professionals’ education and citizens’ empowerment in personalised medicine. *BMC Medical Education*. 2023;23:438. doi:10.1186/s12909-023-04420-z
2022

[33] Pastorino R, Pezzullo AM, Villani L, **Causio FA**, Axfors C, Contopoulos-Ioannidis DG, Boccia S, Ioannidis JPA. Change in age distribution of COVID-19 deaths with the introduction of COVID-19 vaccination. *Environmental Research*. 2022;204(Pt C):112342. doi:10.1016/j.envres.2021.112342

[34] Beccia F, Di Pilla A, **Causio FA**, Federico B, Specchia ML, Favaretti C, Boccia S, Damiani G. Narrative Review of the COVID-19 Pandemic’s First Two Years in Italy. *International Journal of Environmental Research and Public Health*. 2022;19(23):15443. doi:10.3390/ijerph192315443

[35] **Causio FA**, Hoxhaj I, Beccia F, et al. Big data and ICT solutions in the European Union and in China: A comparative analysis of policies in personalized medicine. *Digital Health*. 2022;8:20552076221129060. doi:10.1177/20552076221129060

[36] Nurchis MC, Lontano A, Pascucci D, et al., **Causio FA**, et al. COVID-19 Vaccination Campaign among the Health Workers of Fondazione Policlinico Universitario Agostino Gemelli IRCCS: A Cost–Benefit Analysis. *International Journal of Environmental Research and Public Health*. 2022;19(13):7848. doi:10.3390/ijerph19137848

[37] Cascini F, Beccia F, **Causio FA**, Melnyk A, Ricciardi W. Scoping review of the current landscape of AI-based applications in clinical trials. *Frontiers in Public Health*. 2022;10:949377. doi:10.3389/fpubh.2022.949377

[38] Cascini F, Altamura G, **Causio FA**, et al. Approaches to priority identification in digital health in ten countries of the Global Digital Health Partnership. *Frontiers in Digital Health*. 2022;4:968953. doi:10.3389/fdgth.2022.968953

[39] Cascini F, Beccia F, **Causio FA**, Gentili A, Melnyk A, Boccia S, Ricciardi W. Is blockchain the breakthrough we are looking for to facilitate genomic data sharing? The European Union perspective. *Digital Health*. 2022;8:20552076221114225. doi:10.1177/20552076221114225
2021

[40] Cascini F, **Causio FA**, Failla G, Melnyk A, Puleo V, Regazzi L, Ricciardi W. Emerging Issues From a Global Overview of Digital Covid-19 Certificate Initiatives. *Frontiers in Public Health*. 2021;9:744356. doi:10.3389/fpubh.2021.744356
2020

[41] Acampora A, Grossi A, Barbara A, Colamesta V, **Causio FA**, et al. Increasing HPV Vaccination Uptake among Adolescents: A Systematic Review. *International Journal of Environmental Research and Public Health*. 2020;17(21):7997. doi:10.3390/ijerph17217997

Preprints and Technical Reports

Causio FA, Gandolfi S, Kaur J, Sert B, Fakhfakh M, De Angelis L, Di Pumpo M, Diedenhofen G, Berionni A, Rizzo C, Cascini F, Morita P, Mackey T. Impact of Digital Health Interventions on Health Literacy: A Systematic Review with Quality Appraisal. *medRxiv* preprint. 2025. doi:10.1101/2025.02.27.25323025

Giacobini E, Lentini N, Verduchi A, Cuoco F, **Causio FA**, Di Pumpo M, Porcelli M, Tona DM, Rigaud M, Poirel HA, Rossetti F, Van Den Bulcke M, Boccia S, Pastorino R. Risk-based stratification for genetic and modifiable factors in non-communicable diseases prevention: a scoping review of current guidance. *Research Square* preprint. 2026. doi:10.21203/rs.3.rs-9413274/v1

Causio FA, De Vita V, Riccomi O, Ferramola M, Felizzi F, Cristiano A, et al. EuropeMedQA Study Protocol: A Multilingual, Multimodal Medical Examination Dataset for Language Model Evaluation. *arXiv* preprint arXiv:2604.14306. 2026.

Other Publications

2026 - Giannaki A, Abidi SMA, Boonstra A, Brunskill H, **Causio FA**, et al. Future leaders in child and adolescent mental health research: addressing career challenges of young researchers across

the WHO European Region. *European Journal of Public Health*. 2026;36(Supplement_3):iii19-iii20. [doi:10.1093/eurpub/ckag024](https://doi.org/10.1093/eurpub/ckag024)

2025 - **Causio FA**, Farina S, Russo L, Pascucci E, Verduchi A, Amore R, Sabatelli A, Lucci Cordisco E, Pastorino R, Boccia S. Integrating Genetic Risk Models in Breast Cancer Prevention: A Pilot Study. *European Journal of Public Health*. 2025;35(Suppl 4):ckaf161.1768. [doi:10.1093/eurpub/ckaf161.1768](https://doi.org/10.1093/eurpub/ckaf161.1768)

2025 - Giacobini E, **Causio FA**, Lentini N, Verduchi A, DiPumpo M, Cuoco F, Tona D, Porcelli M, Pastorino R. Mapping personalized risk-stratified prevention approaches: A JA Prevent-NCD Project scoping review. *European Journal of Public Health*. 2025;35(Suppl 4):ckaf161.1200. [doi:10.1093/eurpub/ckaf161.1200](https://doi.org/10.1093/eurpub/ckaf161.1200)

2024 - Manuale per navigare la complessità nell'ospedale del futuro. Chapter 8: Il moderno management sanitario dell'ospedale. Favaretti C, **Causio FA**, Guarrera GM, Damiani G. Idelson-Gnocchi, 2024.

2023 - Deliverable 2.2 Position papers for the 6 challenges on which WGs are focused. WP2 – Knowledge synthesis on the identification, transferability and scaling up of international standards in Personalised Medicine

2022 - Cascini F, Beccia F, **Causio FA**, Muscat NA, Ricciardi W. Editorial: Digitalization for precision healthcare. *Frontiers in Public Health*. 2022;10:1078610. [doi:10.3389/fpubh.2022.1078610](https://doi.org/10.3389/fpubh.2022.1078610)

2023 - Manuale di Igiene, Statistica ed Epidemiologia Decima edizione - Concorso Nazionale SSM 2024. Publisher: Accademia Italiana Medici Specializzandi

2023 - Analisi dei modelli organizzativi di risposta al Covid-19 in Italia. Co-author on Chapters 5 (Diagnostic tests) and 6 (the virus' variants). ISBN/EAN 979-12-211-5171-8

2022 - GLOBAL DIGITAL HEALTH PARTNERSHIP SURVEY ON DIGITAL HEALTH DEVELOPMENT. GDHP White Paper on Evidence and Evaluation

2022 - Chirurgia: Basi teoriche e chirurgia generale-Chirurgia specialistica vol.1-2. Collaborated in writing the chapter "Cancer epidemiology and prevention". ISBN: 8821454355

Research and Advisory Activities

Guest Editor

Dec 2025 – ongoing

PLOS Digital Health

Expert

Jan 2025 – ongoing

ASSESS-DHT, Horizon Europe Project Contributing expert input to the ASSESS-DHT Open Consultation, supporting the development of a harmonised European Health Technology Assessment (HTA) framework for Digital Health Technologies, including Digital Therapeutics, AI-based decision support systems, and telehealth solutions

Research Ambassador

Sep 2024 – Jun 2026

Karger Publishers Serving as ambassador for Karger Publishers (130+ year medical publishing house, 100+ peer-reviewed journals), promoting scientific dissemination, open access, and research communication within health sciences networks

European Commission Expert

Feb 2024 – Jul 2025

- Number: EX2024D935921
- Expert in eHealth, Epidemiology, and Chronic diseases
- Expert in the Study on the deployment of AI in healthcare, led by the European Commission Directorate General for Health and Food Safety and PwC

Peer Review Activities

Journal Reviewer

Dec 2025 – ongoing

PLOS ONE Editorial Board Member

Dec 2025 – ongoing

BMC Artificial Intelligence Journal Reviewer

Dec 2025 – ongoing

Journal of Medical Informatics (JMIR) **Journal Reviewer** 2024 – ongoing
JMIR Research Protocols, JMIR Rehabilitation and Assistive Technologies, PLOS Digital Health, Frontiers in Public Health, BMC Medical Education, European Journal of Public Health
Abstract Reviewer 2025
4th Annual Meeting SIIAM **Abstract Reviewer** May 2023
World Congress on Public Health, Rome

Honours and Awards

Best Presentation Award 2025
Workshop for Multimodal Representation Learning for Healthcare at NeurIPS 2025 Awarded for outstanding presentation at the NeurIPS 2025 workshop on multimodal representation learning in healthcare

Early-Career Researcher Award 2025
Journal of Medical Informatics (JMIR) Recognized for excellence in early-career research contributions to medical informatics and artificial intelligence in healthcare

RYLA Rotary Youth Leadership Award for Start-ups May 2024
Rotary Roma Acquasanta Second place in a startup competition. Led a team designing an app to collect disease information and provide personalized information to users

IC2PerMed Consortium Scholarship 2023
Master's in Epidemiology and Biostatistics Awarded for outstanding research achievements

ExACT Consortium Scholarship 2023
Visiting Scholar Program Funded visiting scholar position at University Medical Center Amsterdam

Ferenc Bojan Prize 2022
EUPHA Abstract on "Vaccination coverage trends in European Union from 1980 to 2020: A joinpoint Regression Analysis" for the European Public Health Conference 2022 was ranked among the 5 receiving the highest score

Premio Seasonal School Sant'Anna Dec 2020
Fondazione Talento all'Opera Awarded a money prize for attending a course with outstanding results at Scuola Superiore Sant'Anna

Erasmus+ Scholarship 2017-2018
Fifth Year of Medical School in Germany Full scholarship for study abroad at Charité Universitätsmedizin, Berlin

Press, Media and Science Communication

Authored Contributions

L'Intelligenza Artificiale per salvare il Servizio Sanitario Nazionale Apr 2025
HealthTech360 Causio FA, Conditi N, De Angelis L, Maio P, Sacchi FA

Il sistema italiano dei dati sanitari è davvero “rotto”? Apr 2025
TrendSanità – Editoriale SIIAM Baglivo F, Causio FA, Sacchi FA

Se a prescrivere i farmaci è un'AI e non più un medico Mar 2025
TrendSanità – Across Europe Ravizza A, Golinelli D, [...], Causio FA, Sacchi FA

Intelligenza Artificiale in Sanità: i commenti di SIIAM al disegno di legge Nov 2024
HealthTech360 Causio FA et al.

Report Draghi sulla competitività europea: anche AI e sanità divise tra innovazione e regolamentazione Nov 2024
TrendSanità – Editoriale SIIAM Sacchi FA, Causio FA, Loriga B

DDL Intelligenza Artificiale, quello che c'è da migliorare su formazione e ricerca a beneficio del SSN Oct 2024

TrendSanità – Editoriale SIIAM De Angelis L, Causio FA, Sacchi FA

SIIAM: “Intelligenza artificiale e salute, tanta buona ricerca ma ancora poche imprese e pochi brevetti” Oct 2024

TrendSanità – Editoriale SIIAM Loriga B, Causio FA, Sacchi FA

Ecco perché ricerca biomedica e AI per la salute sono più libere con la modifica del Codice Privacy Jul 2024

TrendSanità – Editoriale SIIAM Sacchi FA, Causio FA, Grieco V, Loriga B, Baglivo F

L'intelligenza artificiale generativa nella sanità, da ChatGPT all'AI ACT Apr 2024

TrendSanità – Editoriale SIIAM Baglivo F, Causio FA, De Angelis L, et al.

Features and Media Appearances

Trends in childhood vaccination coverage in the European Union, 1980–2024 Sep 2026

The Lancet Regional Health – Europe Villani L, Russo L, Causio FA, et al. Ecological time-series study of seven childhood vaccines across all 27 EU countries. DOI: 10.1016/j.lanepe.2026.101834

Media coverage:

[Le Monde \(FR\)](#)

[Le Parisien \(FR\)](#)

[Libération \(FR\)](#)

[El País \(ES\)](#)

[Infobae \(ES\)](#)

[HuffPost \(ES\)](#)

[EFE \(ES\)](#)

[FAZ \(DE\)](#)

[Tagesschau \(DE\)](#)

[news.at \(AT\)](#)

[HealthNews \(PT\)](#)

[Lusa \(PT\)](#)

[Skai \(GR\)](#)

[Russpain \(EN\)](#)

[Bursa \(RO\)](#)

[SigmaLive \(CY\)](#)

[L'essentiel \(LU\)](#)

[Le Spécialiste \(BE\)](#)

[Maszol \(RO\)](#)

[Bursa \(RO\)](#)

[Playtech \(RO\)](#)

[Aktual24 \(RO\)](#)

[Ara \(ES\)](#)

[Yahoo News \(EN\)](#)

[Irish Independent \(IE\)](#)

A Day in the Life of a Karger Ambassador: Dr. Francesco Andrea Causio 2024

Karger Publishers – Beyond the Cover Profile feature on research, AI in medicine, and the role of the Karger Ambassadors Program in connecting health science communities

Congresso SIIAM, Causio: “Valutiamo insieme la AI. In sanità non tutti gli ambiti sono già pronti ad usarla” Nov 2024

TrendSanità – Interview Interview on the 2nd Annual Meeting SIIAM, covering multidisciplinary AI assessment, regulatory and ethical implications, and digital health literacy

Poveracci, i poveri! – AI in healthcare roundtable 2024

Panorama della Sanità Contributor to a multi-author roundtable on artificial intelligence and the future

of the Italian National Health Service (SSN)

Exploring the AI Frontier: Insights from the Latest Karger in Conversation Panel *Nov 2023*

Karger Publishers – Experience Karger Panelist at Karger in Conversation online event on AI, ChatGPT and Machine Learning in health science publishing

Volunteering

Head of Organization

Erasmus Student Network, Bari, Italy **Volunteer**

Oct 2019 – Dec 2020

Aug 2015 – Sep 2015

Expo 2015 Volunteer

Feb 2015 – May 2015

Gemelli Hospital, Rome, Italy

Invited Talks

2026 - Scuole di Politiche Nutshell Course

Webinar presentation: “AI for human health and societal good”

2024 - Aspettando Sharper Terni, Notte Europea dei Ricercatori

Speaker: “Artificial Intelligence in Medicine: Where we are and where are headed”

Jun 2023 - ExACT Open Seminar

ExACT survey investigating citizens’ attitudes towards personalized medicine and health data sharing

Jun 2022 - IC2PerMed Roadmap Validation Workshop

Oral presentation of the results of the mapping process previous to the roadmap drafting.

Conference Presentations

2025 - NeurIPS Workshop on Multimodal Representation Learning for Healthcare, San Diego

Best Presentation Award. Presented EuropeMedQA: a multilingual, multimodal medical examination dataset for LLM benchmarking.

2024 - European Public Health Conference (EUPHA), Lisbon

Poster: “Impact of Digital Health Interventions on Health Literacy: A Systematic Review”. Poster: “Knowledge and Attitudes of Personalized Medicine and Health Data Sharing in the EU”.

2023 - European Public Health Conference (EUPHA), Dublin

Oral and poster presentations on personalized medicine survey results and digital health literacy.

2023 - European Health Management Association (EHMA) Annual Conference

Oral presentation: “Artificial Intelligence on the improvement of hospital efficiency – an automated surgical scheduling tool using machine learning and optimisation algorithms”

May 2023 - World Congress on Public Health, Rome

Oral presentation on “Preliminary results on a survey targeting citizens’ attitudes towards personalized medicine and health data sharing”.

2022 - European Public Health Conference

Ferenc Bojan Young Investigator Award Session: oral presentation on “Vaccination coverage trends

in European Union from 1980 to 2020: A joinpoint Regression Analysis”

2022 - Società Italiana di Igiene - Congresso Nazionale

Pitch: “Preliminary results of the CCM project ‘Italian Genomic Strategy’”

2021 - Società Italiana di Igiene - Congresso Nazionale

Oral presentation: “Health data, ICT, and biobanking in personalized medicine: a comparative analysis between Europe and China”

Conference Organization & Chair Roles

Third Annual Meeting SIIAM

2025

Opened a plenary session. Oral and poster presentations, including survival prediction in bladder cancer patients using machine learning and the EuropeMedQA dataset.

Second Annual Meeting SIIAM

2024

Event organizer

First Annual Meeting SIIAM

Dec 2023

Event organizer; Moderator of the first session “Introduction to AI: technical and legislative framework”; Coordinator of the event workshop

Professional Licenses

License to Practice Medicine in Italy

Mar 2020

Medical Board Number: OMCEO BA 16660

Skills

Programming: Python, TypeScript, Java, C++, LaTeX

AI & Machine Learning: LLMs, RAG Systems, Prompt Engineering, Agentic Workflows, ML Model Evaluation, Clinical AI, NLP

Data & Research: Data Structures & Algorithms, Statistical Analysis, Systematic Reviews, Survey Design, Epidemiology, Biostatistics

Tools: Git, GitHub, Docker, Microsoft Office, Google Workspace

Languages: Italian (Native), English (C1), German (C1), Spanish (B2), French (A2)

Soft Skills: Leadership & Management, Scientific Communication, Public Speaking, Cross-functional Collaboration, Grant Writing, Teaching & Mentoring

Driving Licence

Category B