

STEFANO NATANGELO, MD

Medical Oncology Resident | Clinical AI Evaluation & Governance

University of Milan · Fondazione IRCCS Istituto Nazionale dei Tumori

Milan, Italy | stefano@natangelo.dev | natangelo.dev
github.com/SNatangelo | ORCID: 0009-0002-3021-3085

Medical oncology resident with Phase I-III trial experience, working on clinical AI evaluation and governance. Developed Callimachus, a publicly released citation-verification application combining bounded LLM judgements with deterministic checks. Research focuses on evidence traceability, evaluation limits and governance of clinical language models.

AI EVALUATION & CLINICAL WORKFLOW SYSTEMS

Callimachus | Creator & developer

Public release: Sep 2026

callimachus.science · Python / SQLite / PySide6

- Translated research on externalising epistemic governance into a pipeline that checks whether cited sources support written claims.
- Assigned bounded judgements to LLMs, required source passages as evidence and implemented deterministic validation, verdict generation and audit trails.
- Built the desktop application and command-line workflows with interchangeable model backends; managed testing, packaging and public distribution.

AIFA Registry Workflow Tool | Creator & developer

2026-present

Internal oncology registry tooling · Python / Playwright / SQLite

- Built a Windows application for AIFA registry documentation and read-only reconciliation with MedWeb, the hospital clinical information system.
- Implemented duplicate and ambiguity checks, manual takeover, record-level logs and recovery of unprocessed tasks; tested against clinical-administrative workflows.

CLINICAL EXPERIENCE

Medical Oncology Resident

Nov 2023-present

Fondazione IRCCS Istituto Nazionale dei Tumori, Milan

- Provide inpatient and outpatient oncology care; screen and enrol patients in Phase I-III thoracic oncology trials, with informed consent and longitudinal follow-up.
- Document and report serious adverse events under ICH-GCP and maintain structured clinical data with study coordinators and sponsor-appointed CRAs.

Earlier residency rotations: IEO, Breast Unit / Phase I-II trials (May-Oct 2023); Niguarda, ward / GI oncology (May 2022-Apr 2023); Fatebenefratelli Sacco, solid tumours (Nov 2021-Apr 2022).

CLINICAL AI RESEARCH & RECOGNITION

AI-ON-LAB: clinical NLP and LLM benchmarking in oncology; co-author of the *Communications Medicine* study on cancer information extraction from Italian EHRs.

ESMO AI & Digital Oncology 2026 Merit Award. Awarded for abstract #460, "The Preservation Gap: The NAT-Clinical Framework for Governing Clinical Large Language Models Across Updates." Accepted abstract; presenting author.

SELECTED AI PUBLICATIONS

Natangelo S. Externalizing Epistemic Governance from Stateless Clinical LLMs: Why It Is Necessary and Why It Must Be Constrained. *Philosophy & Technology*. 2026.

Accepted for publication · Sole author

Natangelo S. Continuity Is All You Need: Why Clinical AI Governance Requires Structural Persistence. *Zenodo*. 2026. DOI: 10.5281/zenodo.19896682.

Preprint · Sole author

Natangelo S. The Narrative Continuity Test: A Conceptual Framework for Evaluating Identity Persistence in AI Systems. *arXiv*. 2025. DOI: 10.48550/arXiv.2510.24831.

Preprint; in revision at AI & Ethics · Sole author

Corso F, Peppoloni V, Mazzeo L, et al. Clinician expertise and prompt engineering enhance cancer information extraction in electronic health records by small language models. *Communications Medicine*. 2026. DOI: 10.1038/s43856-026-01790-5.

Peer-reviewed article · Co-author

Peppoloni V, Leone G, Mazzeo L, et al. LungTrial-LLMX: An explainable on-premises LLM system for clinical trial matching in lung cancer. *ESMO Real World Data and Digital Oncology*. 2025. DOI: 10.1016/j.esmorw.2025.100350.

Conference publication · Co-author

Full record, including oncology papers, consortium contributions and preprints:
natangelo.dev/publications.html · ORCID 0009-0002-3021-3085

EDUCATION

Residency in Medical Oncology

Nov 2021-present

University of Milan. Expected completion: November 2026.

MD, Medicine and Surgery

July 2021

University of Milan. Experimental thesis on NSCLC radiogenomics, integrating imaging with tissue and circulating biomarkers in 130 retrospective and 72 prospective patients.

EDITORIAL & PROFESSIONAL ACTIVITY

Journal of Secondary Endpoints

2025-present

Founder & Editor-in-Chief. Independent, diamond open-access journal exploring research culture through scientific satire. Designed editorial workflows and operate the OJS publishing stack, DOI metadata and email infrastructure.

Peer review: BMJ Digital Health & AI, BMC Medicine, The Oncologist, Scientific Reports and Journal of Cancer Policy.

SELECTED TOOLS & TRAINING

Tools: Python, SQL / SQLite, PySide6, Playwright and REDCap; provenance checks, passage validation and deterministic guards for LLM outputs.

Training: Good Clinical Practice, third-edition update.

Languages: Italian: native · English: professional working proficiency.