

Gal Sapir

MD, PhD

Staff Research Scientist · Health AI

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[Google Scholar](#) / [GitHub](#) / [Sparse Thoughts](#) / [LinkedIn](#)

I work on health AI: choosing meaningful research questions, defining credible evidence of progress, and building the systems to test them. My work spans foundation models, health agents, and clinical evaluation, combining medical expertise with hands-on research and engineering. I'm interested in shaping what we ask of AI in health and developing environments where models can learn to meet those demands.

RESEARCH & EXPERIENCE

Pheno.AI

November 2023–present

Staff Research Scientist

March 2025–present

Data Scientist

November 2023–February 2025

Research on the Human Phenotype Project (HPP), a prospective, deeply phenotyped cohort with approximately 28,000 enrolled participants.

PhenoBench

Clinical questions as executable evaluations

- Conceived and built PhenoBench end to end: research design, task ingestion, implementation, tests, evaluations, and manuscript. Defined 90 clinically grounded tasks with explicit populations, inputs, splits, metrics, and baselines.
- Built PhenoBench-LLM to evaluate 14 language models; benchmarked tabular foundation models with collaborators, analyzing effect sizes and failure modes against conventional baselines.
- Used by all Pheno data science teams to define tasks, evaluate models, and document results that inform which models to retain.

Health Agent

Clinical evaluation that guides development

- Defined clinical tasks, conducted clinical review, and designed the evaluation methodology and system, with checks for numerical accuracy, evidence grounding, missing-data handling, and clinical language.
- Co-first author of a study comparing five system conditions. The research became the basis of a health-agent system now in beta with HPP participants.

GluFormer & HealthFormer

Evaluating health foundation models

- **GluFormer:** identified external cohorts and designed evaluations of clinical value and generalization. The study tested transfer across 19 cohorts; co-wrote the *Nature* paper (second author).
- **HealthFormer:** defined the evaluation agenda for a generative model of multimodal physiology, including UK Biobank comparisons and clinical-trial simulations assessed against published intervention outcomes.

Samsung Research collaboration

From research proposal to pilot delivery

- Led the Galaxy Health pilot from proposal to delivery, integrating smartwatch, CGM, dietary, and clinical data from approximately 200 participants. Met or exceeded agreed health-indicator and glucose-prediction KPIs.

SELECTED PUBLICATIONS

PhenoBench: Mapping What a Deeply Phenotyped Human Cohort Can Tell Us

Sapir G, Diamant A, Wolf A, et al. Manuscript, 2026. First author.

Grounding Health AI: Architecture and Evaluation of a Domain-Expert Metabolic Health Agent

Diamant A*, **Sapir G***, Gorodetski M*, et al. *medRxiv*, 2026. *Equal contribution.

Simulating clinical interventions with a generative multimodal model of human physiology

Lutsker G, **Sapir G**, Merino J, et al. *arXiv*, 2026.

A foundation model for continuous glucose monitoring data

Lutsker G, **Sapir G**, Shilo S, et al. *Nature*, 2026.

[Full publication record](#) → [Google Scholar](#)

Selected writing at Sparse Thoughts: [Benchmarking is the new data activation](#) · [Curation all the way down](#).

EARLIER EXPERIENCE

Lynx.MD

2022–November 2023

Software Engineer

Developed Python/Django software and streamlined AWS serverless deployment and CI/CD.

Hebrew University of Jerusalem

2015–2021

Graduate Research & Teaching

Developed hyperpolarized MR imaging and spectroscopy methods, with signal processing and analysis in MATLAB and Python. Mentored students and taught computational medicine, histology, and physiology to over 500 students.

Sheba Medical Center

2020–2021

Medical Intern

Clinical rotations in general surgery, internal medicine, and emergency medicine.

EDUCATION

Hebrew University–Hadassah Medical School

PhD	Hyperpolarized magnetic resonance research; supervisor: Prof. Katz-Brull	2021
MD	Medicine · <i>Cum laude</i>	2019
MSc	Biomedical Science · <i>Magna cum laude</i>	2017
BSc	Biomedical Sciences · <i>Cum laude</i>	2015