



HBHI Workgroup on AI and Healthcare Seminar Series (Spring 2025)

February 21, 2025 (Friday) | 12 p.m.–1 p.m. ET

Zoom Link: <https://jhucarey.zoom.us/j/94432122944?pwd=SEJFWW03eGZrUlozY1RETHhsNHhUT09>

Meeting ID: 944 3212 2944

Passcode: 198964

Join the [Hopkins Business of Health Initiative \(HBHI\)](#) for a timely discussion on “**CLIMB: An AI-enabled Partner for Clinical Predictive Modeling**” with **Dr. Mihaela van der Schaar** of the University of Cambridge.

Featured Speaker:

» [Mihaela van der Schaar, PhD](#), John Humphrey Plummer Professor of Machine Learning, Artificial Intelligence, and Medicine, University of Cambridge; Founder and Director, Cambridge Centre for AI in Medicine

Discussant:

» [David E. Newman-Toker, MD, PhD](#), Director, Armstrong Institute Center for Diagnostic Excellence; Director, Division of Neuro-Visual & Vestibular Disorders, Department of Neurology; David Robinson Professor of Vestibular Neurology, Johns Hopkins School of Medicine

Moderators:

- » [Tinglong Dai, PhD](#), Bernard T. Ferrari Professor of Business, Johns Hopkins University; Co-chair, HBHI Workgroup on AI and Healthcare
- » [Risa Wolf, MD](#), Associate Professor of Pediatric Endocrinology, Johns Hopkins School of Medicine; Director, Pediatric Diabetes Program; Co-chair, HBHI Workgroup on AI and Healthcare

SHOW FLOW (all times in Eastern Time Zone)

11:50 am–12:00 pm | Tech Preparation | David, Mihaela, Liana, Risa, and Tinglong | Graphic: None

The featured speaker, discussant, moderators, and Liana join the Zoom meeting at 11:50 am to test audio/video. Recording starts at 12pm. If needed, Tinglong’s cell number is **+1 (412) 304-4008**.

12:01–12:05 pm | Introductions | Speakers: Risa and Tinglong | Graphic: None

Tinglong introduces the HBHI Workgroup on AI and Healthcare for newcomers. **Risa** introduces the featured speaker:

- Mihaela van der Schaar is the John Humphrey Plummer Professor of Machine Learning, Artificial Intelligence, and Medicine at the University of Cambridge.

- She leads the van der Schaar Lab and is the founder and director of the Cambridge Centre for AI in Medicine (CCAIM).
- Mihaela was elected IEEE Fellow in 2009 and Fellow of the Royal Society in 2024.
- Her numerous accolades include the Johann Anton Merck Award (2024), the Oon Prize on Preventative Medicine (2018), and a National Science Foundation CAREER Award (2004).
- She has also received three IBM Faculty Awards, the IBM Exploratory Stream Analytics Innovation Award, the Philips Make a Difference Award, and multiple best paper awards, including the IEEE Darlington Award.
- She served as a Turing Fellow at The Alan Turing Institute from 2016 to 2024.
- She holds 35 U.S. patents, many of which are widely cited and incorporated into international standards, earning her three ISO Awards.
- In 2019, a Nesta report identified Mihaela as the most-cited female AI researcher in the U.K.

12:05–12:35 pm | The Seminar | Speaker: Mihaela | Graphic: Slide Deck (to be shared by the speaker)

Title: CliMB: An AI-enabled Partner for Clinical Predictive Modeling

Abstract: In this talk, I will introduce CliMB, a no-code AI-enabled partner designed to empower clinician scientists to create predictive models using natural language. CliMB streamlines the medical data science pipeline, enabling users to build robust models from real-world data within a single conversation. It also generates structured reports, interpretable visuals, and automated performance evaluations, ensuring transparency and usability for clinical decision-making.

I will present findings from systematic evaluations demonstrating CliMB's superior performance over GPT-4, particularly in planning, error prevention, and model execution. Additionally, I will discuss results from a blinded study involving 45 clinicians across specialties and career stages, where over 80% preferred CliMB for its clarity, ease of use, and reliability. By integrating advances in data-centric AI, AutoML, and interpretable ML, CliMB lowers the barrier to AI adoption in medicine, offering clinician scientists a powerful, intuitive tool to harness AI for real-world impact.

12:35–12:42 pm | Discussion | Speakers: Risa, David, and Mihaela | Graphic: None

Risa briefly introduces **David**: David Newman-Toker, MD, PhD, is a Professor of Neurology at Johns Hopkins University and Director of the Armstrong Institute Center for Diagnostic Excellence. A leading expert in reducing diagnostic errors, his research focuses on improving stroke detection, particularly in patients with acute dizziness and vertigo. He pioneered bedside eye movement diagnostics and point-of-care technologies. Dr. Newman-Toker trained at the University of Pennsylvania (medical school), Massachusetts General Hospital (residency), and completed fellowships at Harvard and Johns Hopkins.

David then provides a short reflection and questions for **Mihaela**; **Mihaela** briefly responds to the discussion questions

12:42–12:58 pm | Q&A | Speakers: Mihaela, Risa, and Tinglong | Graphic: None

Risa and **Tinglong** invite the audience to ask **Mihaela** questions and facilitate the discussion. Remind the audience to introduce themselves and share 1 line/sentence about their work before asking their questions.

12:58–1:00 pm | Closing Remarks | Speakers: Risa and Tinglong | Graphic: None

Risa and **Tinglong** close the seminar and announce the next speaker of the HBHI-AI seminar series, [Prof. Jun Deng](#), Professor of Therapeutic Radiology and Director of Physics Research at Yale University.