

# Department of Population and Quantitative Health Sciences

## Weekly Newsletter

JANUARY 5-9, 2026



UMass Chan  
MEDICAL SCHOOL

## UPCOMING EVENTS



**Wednesday, January 7, 10:00 – 11:00 AM**

### **Research Methods Meeting**

**Presenter:** Jie Yang

**Title:** Understanding LLM Capabilities on Real-World Clinical Data Through 39 Million Predictions

**Abstract:** Large language models (LLMs) are increasingly used in healthcare, yet most evaluations rely on clean, exam-style datasets that fail to capture the complexity of real-world clinical data, such as electronic health records (EHRs), and rarely keep pace with rapidly evolving LLMs. In this talk, we will present BRIDGE, a multilingual benchmark constructed from real clinical tasks and over one million EHR-derived samples,

where we evaluated 95 leading LLMs through 24,000+ experiments and 39 million predictions. Our findings show wide variation across model families, tasks, and languages, with several open-source models matching proprietary ones. We also observe that chain-of-thought prompting often lowers accuracy for these clinical tasks, and we provide the first large-scale analysis of stigmatized language generated during model reasoning.

**Bio:** Dr. Jie Yang is an Assistant Professor at Harvard Medical School and a lead investigator at Brigham and Women's Hospital. His research focuses on developing and applying advanced AI and NLP/LLM methods to analyze large-scale healthcare data, particularly electronic health records (EHRs). He is a Fellow of the American College of Medical Informatics (FACMI), Fellow of the American Medical Informatics Association (FAMIA), and serves on the Technical Advisory Group for the World Health Organization (WHO) Global Clinical Platform. Dr. Yang received the Best Paper Award at COLING and a Best Demonstration Paper nomination at ACL. He serves as an Associate Editor for npj Digital Medicine, IEEE Transactions on Neural Networks and Learning Systems, and npj Health Systems, and as an Area Chair for major NLP conferences, including ACL, EMNLP, and COLING. Click [here](#) to join.



**Wednesday, January 21, 10:00 – 11:00 AM**

### **Research Methods Meeting**

**Presenter:** Wojciech Losos, MD, MBS, is a Post-Doctoral Research Fellow in the Program in Digital Medicine at UMass Chan Medical School and a T32-funded scholar supported by the National Heart, Lung, and Blood Institute

**Title:** Cardiometabolic Therapy and ECG-Derived Biological Age: A Real-World Methods Framework for Evaluating Dynamic Digital Biomarkers

**Abstract:** Biological aging measures derived from machine-learning analysis of the electrocardiogram (ECG-Age) have emerged as scalable and clinically interpretable digital biomarkers, yet their responsiveness to pharmacologic therapy remains poorly understood. In this talk, I will present a retrospective cohort study of 2,910 unique patients evaluating whether initiation of cardiometabolic therapies—including GLP-1 receptor agonists, SGLT2 inhibitors, PCSK9 inhibitors, and metformin—is associated with improvements in ECG-derived biological age (delta age) across overlapping real-world exposure groups. A central methodological focus will be the development and application of a time-weighted mean (TWM) framework to address irregular and sparse ECG measurement intervals common in electronic health record data. I will highlight key analytic considerations in modeling dynamic digital biomarkers, summarize findings demonstrating significant improvements across medication classes, and discuss opportunities for causal inference, longitudinal modeling, and digital phenotyping in future work. The overarching goal is to illustrate a generalizable methods framework for rigorously evaluating dynamic digital biomarkers in precision cardiometabolic care.

**Bio:** Wojciech Losos, MD, MBS, is a Post-Doctoral Research Fellow in the Program in Digital Medicine at UMass Chan Medical School and a T32-funded scholar supported by the National Heart, Lung, and Blood Institute. His research focuses on developing and validating digital biomarkers and clinical decision support systems, with particular emphasis on machine learning-derived cardiovascular signals and wearable devices for arrhythmia detection. He works closely with Drs. Apurv Soni and Honghuang Lin on projects integrating electronic health record data, wearable sensors, and advanced analytics to advance precision cardiometabolic care. Clinically, Dr. Losos is an attending physician with the Hospital at Home program and will begin cardiology fellowship at UMass in July 2026, pursuing a career in advanced heart failure and transplant cardiology within an academic medicine pathway. Click [here](#) to join.

## DIVERSITY DIGEST

**January 4 marks World Braille Day.** It is the birthday of Louis Braille, who created to code in 1824. Braille allows people to read with their fingertips using a system of six raised dots. Blind people use Braille to read novels and solve math equations, learn a piece of music or compose, and read buttons on elevators and ATMs. Braille is an extremely helpful tool to make the written world more accessible to blind people.

# 2026 JANUARY

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1 *New Year's Day *Feast Day of St. Basil	2	3 *Feast of the Holy Name of Jesus *Mahayana New Year
4 World Braille Day	5 Twelfth Night	6 Three Kings Day	7 Eastern Orthodox Christmas	8	9	10
11	12 Coming of Age Day	13 Maghi/Lohri	14 *Orthodox New Year *Makar Sankranti	15 Lailat al Miraj (through sundown 1/16)	16	17
18 *Week of Prayer for Christian Unity (1/18-1/25) *World Religion Day	19 *Timkat *Martin Luther King Jr. Day	20 Birthday of Guru Gobind Singh Ji	21	22	23 Vasant Panchami	24 Union of the Romanian Principalities
25	26 *Republic Day *Australia Day	27 International Day of Commemoration	28	29	30	31

## UMASS CHAN REMINDERS

### A Reminder from Payroll Services: 2026 Personal Time Schedule

- **Employees have until 1/10/2026 to use 2025 personal time**
- 2026 personal time will be granted on 1/13/2026
- Employees may begin using 2026 personal time after 1/13/2026 for the week beginning 1/11/2026

## HOLIDAY SCHEDULE

### Holiday Schedule for 2026:

- Martin Luther King Jr. Day – Monday, January 19<sup>th</sup>
- Presidents Day – Monday, February 16<sup>th</sup>
- Patriots' Day – Monday, April 20<sup>th</sup>
- Memorial Day – Monday, May 25<sup>th</sup>
- Juneteenth National Independence Day – Friday, June 19<sup>th</sup>
- Independence Day – Friday, July 3<sup>rd</sup> (observed)
- Labor Day – Monday, September 7<sup>th</sup>
- Indigenous Peoples' Day – Monday, October 12<sup>th</sup>
- Veterans Day – Wednesday, November 11<sup>th</sup>
- Thanksgiving Day – Thursday, November 26<sup>th</sup>
- Day After Thanksgiving – Friday, November 27<sup>th</sup>
- Christmas Eve – Thursday, December 24<sup>th</sup>
- Christmas Day – Friday, December 25<sup>th</sup>

PQHS Weekly will be sent to all members of PQHS on Monday mornings. The intent is to provide a snapshot of what is going on that week in PQHS and to share our faculty and staff activities with the department. We depend on you to provide the items we need to share. Please send suggestions of events, faculty invited seminars & talks, honors, student thesis presentations, and news – new babies born! – to Judi ([judi.saber@umassmed.edu](mailto:judi.saber@umassmed.edu)) & Sarah ([sarah.yeboah@umassmed.edu](mailto:sarah.yeboah@umassmed.edu)) by Friday each week.