Biomedical Informatics Grand Rounds

Wednesday, May 14, 2025
3:00 pm – 4:00 pm

Evaluating Large Language Models Across the Clinical Spectrum

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Remote Access
Join Zoom Meeting https://stonybrook.zoom.us/j/95617197636?pwd=KytzZ2pVRG9SZGpKZUtpNXJISjNjZz09
Meeting ID: 956 1719 7636 Passcode: 924293

Bio: Dr. Chris Williams is a Cambridge- and UCSF-trained physician scientist specializing in AI in Medicine. He has 35+ publications in leading peer-reviewed journals including The Lancet, Nature Medicine, Nature Communications, JAMA Internal Medicine, JAMA Network Open and others, and is regularly featured in national and international media. He is also the co-founder/CEO of Quality Health, a healthtech company building AI for healthcare quality improvement.

Abstract: In this talk, we will explore the capabilities of large language models (LLMs) across a diverse range of clinical scenarios. LLMs offer substantial promise within healthcare – and are already being deployed in clinical practice for tasks such as ambient documentation and drafting of in-basket messages – but there is a paucity of literature evaluating their performance on real-world clinical notes. Using the deidentified UCSF Information Commons dataset incorporating ~140 million clinical notes across 8 million patients, the talk will delve into evaluations of LLMs' capacity to interpret clinical information for Emergency Department triage and generating narratives for discharge summaries. It will then address the current limitations of LLMs in more complex clinical reasoning tasks, like providing direct treatment recommendations, before concluding with a look forward into the future potential for leveraging AI to improve patient care.

Educational Objectives:

1. Participants will be able to identify different potential applications of LLMs within clinical settings.
2. Participants will be able to describe the methodologies used to evaluate the performance of LLMs in healthcare-related tasks.
3. Participants will be able to compare and contrast the strengths and weaknesses of LLMs across various clinical applications, such as acuity assessment, documentation, and decision support.

Disclosure Statement: The faculty and planners have no relevant financial relationship with ineligible companies, whose primary business is producing, marketing, selling, reselling, or distributing health care products used by or on patients.

Continuing Medical Education Credits: The School of Medicine, State University of New York at Stony Brook, is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The School of Medicine, State University of New York at Stony Brook designates this live activity for a maximum of **1** ***AMA PRA Category 1 Credits™.*** Physicians should only claim credit commensurate with the extent of their participation in the activity.