

AI SEMINAR SERIES

Computationally analyzing knowledge graphs and using machine-learning for drug repositioning and precision oncology applications



Stephen Ramsey
Associate Professor
Oregon State University

WEDNESDAY

MAY 19

1-2 P.M. PACIFIC

Zoom

tinyurl.com/yup7cppa

Calendar link

tinyurl.com/y3kahh9s

ABSTRACT

I will describe our work on two projects: an NIH consortium project, the Biomedical Data Translator, and a project to use machine learning to improve outcomes in cancer treatment. The Biomedical Data Translator project's broad aim is to advance translational science using computer-aided knowledge exploration and reasoning. Our team is developing a reasoning system, ARAX, that is geared toward drug repositioning for common diseases and therapeutic recommendation for rare inherited diseases. I will describe some of the principles behind this system and key challenges inherent to building scalable reasoning systems. For the precision oncology project, I will also present some recent work in our lab on using machine-learning to predict response to chemotherapy based on transcriptome data acquired from tumor samples.

SPEAKER BIOGRAPHY

Stephen is a computational biologist whose PhD work was in computational physics. At OSU, Stephen holds a dual appointment in the Department of Biomedical Sciences and in the School of Electrical Engineering and Computer Science. Stephen's research has been recognized by multiple awards including an NIH K25 Career Development Award, a PhRMA New Investigator Award, an NSF CAREER award, and the Carlson College of Veterinary Medicine Zoetis Award.

Accommodations for disabilities may be made by contacting patravaj@oregonstate.edu.



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