



ISPE'S 18TH ASIAN CONFERENCE
ON PHARMACOEPIDEMIOLOGY

30 OCT - 1 NOV 2026 MELBOURNE, AUSTRALIA



MONASH
University

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INSTITUTE OF
PHARMACEUTICAL
SCIENCES

Educational Session Program Friday 30 October 2026

TRACK C: Machine Learning in Real-World Drug Studies: Introduction to Prediction and Natural Language Processing (NLP) models

Session coordinator:

Dr Yanmin Zhu, Brigham And Women's Hospital And Harvard Medical School

Dr Richeek Pradhan, Monash University

Instructors:

Dr Harvey Koh, Monash University

Dr Ting Xia, Monash University

Crystal Leung, Monash University

Time	Topic
09:00 – 10:30 (90 mins)	Course Overview and Learning Objectives (10 min) Instructors: Dr Richeek Pradhan The Roadmap from Conventional NLP to Large Language Models (30 min) Instructors: Dr Harvey Koh Foundations of NLP for Real-World Data: Tasks, Models, and Research Applications (30 min) Instructors: Dr Ting Xia Part 1 NLP coding Lab set-up (20min) Instructors: Crystal Leung
10:30 – 11:00 (30 mins)	BREAK
11:00 – 12:30 (90 mins)	Part 1 lab: NLP Coding Laboratory: NLP Demonstration and Coding Exercises Instructors: Crystal Leung, Dr Ting Xia
12:30 – 13:30 (60 mins)	LUNCH
13:30 – 15:00 (90 mins)	Practical LLM Applications in Pharmacoepidemiology and Pharmacovigilance (30 min) Instructors: Dr Yanmin Zhu Part 2 lab: LLM Hands-On Laboratory: Extraction from Clinical and Safety Narratives (60 min) Instructors: Dr Harvey Koh
15:00 – 15:30 (30 mins)	BREAK
15:30 – 17:00 (90 mins)	More Data, More Bias? Treading Carefully in Designing NLP- and LLM-Enabled Pharmacoepidemiology Research (60 min) Instructors: Dr Richeek Pradhan

17:00

Key Takeaways, Course Summary and Closing Remarks (30 min)

Instructors: Dr Yanmin Zhu

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