# OHDSI Evidence Network Study

## Clair Blacketer

*Lead, CDM Workgroup*
*Lead, Network Data Quality Workgroup*

# Why are we here?



*...to collaboratively generate evidence that promotes better health decisions and better care.*

# Save our Sisyphus Challenge

**Amongst people with psoriasis, does exposure to Risankizumab increase the risk of cerebrovascular events while on treatment relative to other biologic therapies?**
Lead: Zenas Yiu
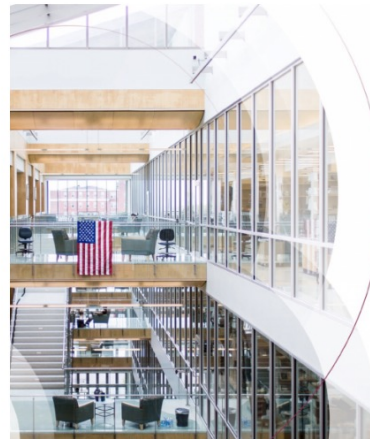
**Characterization: incidence of progressive multifocal leukoencephalopathy (PML) during Multiple Sclerosis (MS) biologic exposure**
Lead: Thamir Alshammary

OHDSI Save Our Sisyphus Challenge
7th March 2023

**Population Estimation: Comparative safety:**

Amongst people with psoriasis, does exposure to Risankizu... the risk of venous thromboembolism while on treatment other biologic therapies?

Zenas Yiu
Clinical Senior Lecturer in Dermatology
University of Manchester

**Intravitreal Anti-VEGF and Kidney Failure**
Lead: Cindy Cai

**Is fluoroquinolone use really associated with the development of aortic aneurysms**
Leads: Jack Janetzki, Jung Ho Kim, Seonji Kim, Jung Ah Lee, Nicole Pratt, Seng Chan You,

Wilmer Eye Institute
Johns Hopkins Medicine

OHDSI SOS Challenge:
**Intravitreal Anti-VEGF and Kidney Failure**

Cindy X. Cai, MD
The Jonathan and Marcia Javitt Rising Professor
Assistant Professor of Ophthalmology
Retina Division, The Wilmer Eye Institute
Johns Hopkins University School of Medicine

3/7/2023

Is fluoroquinolone use really associated with the development of aortic aneurysms and aortic dissections?

OHDSI Save Our Sisyphus Challenge 2023

Initial collaborators
Seng Chan You, Seonji Kim, Jung Ho Kim, Jung Ah Lee  - Yonsei University
Jack Janetzki, Nicole Pratt - University of South Australia
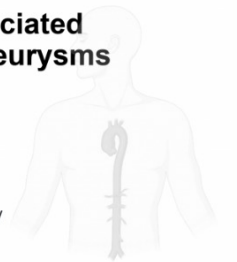
YONSEI UNIVERSITY

University of South Australia

Introductory Video

Introductor...

MS Teams Channel

GitHub R...

Introductory Video

Introductory Slides

MS Teams Channel

GitHub Repo

Introductory Video

Introductory Slides

MS Teams Channel

GitHub Repo

# Inaugural Data Sources of the OHDSI Evidence Network Pilot

Ajou University • Ajou University
Casa di Cura Igea • Casa di Cura Igea
Clinical Center of Montenegro • Clinical Center of Montenegro
Columbia University Medical Center • Columbia University Medical Center
University College London · UK THIN
IQVIA • Australia EMR
IQVIA • Disease Analyzer France
IQVIA • Disease Analyzer Germany
IQVIA • Japan Claims
IQVIA • Japan HIS
IQVIA • Longitudinal Patient Database (LPD) in Belgium
IQVIA • Longitudinal Patient Database (LPD) in France
IQVIA • Longitudinal Patient Database (LPD) in Italy
IQVIA • Longitudinal Patient Database (LPD) in Spain
IQVIA • OMOP US Hospital Data Master
IQVIA • Pharmetrics Plus
IQVIA • UK Medical Research Data EMIS
IQVIA • UK Medical Research Data THIN
IQVIA • US Open Claims
Janssen Research & Development • JMDC
Janssen Research & Development • Merative® Marketscan® Commercial Claims and Encounters
Janssen Research & Development • Merative® Marketscan® Medicare Supplemental

Janssen Research & Development • Merative® Marketscan® Multi-State Medicaid
Janssen Research & Development • Optum's Clinformatics® Data Mart - Date of Death
Janssen Research & Development • Optum's Clinformatics® Data Mart - Socio-Economic Status
Janssen Research & Development • Optum's Longitudinal EHR Repository
Janssen Research & Development • Premier Healthcare Database
Johns Hopkins University • Johns Hopkins University
National University of Singapore • National University of Singapore
Northeastern • IQVIA Pharmetrics Plus
Organization Name • Data Source Name
Taipei Medical University • Taipei Medical University
Tufts University Medical Center • Tufts University Medical Center
University of Nebraska Medical Center • University of Nebraska Medical Center
University of Southern California • Keck Medical Center
US Department of Veteran's Affairs • US Department of Veteran's Affairs
Yinzhou Bigdata Platform • Yinzhou Bigdata Platform

# Learnings from the Pilot

- Keeping the aggregate statistics private is challenging and can be a barrier to open science

- Data owners would like to collaborate to better the quality of their data

- Data owners would like to understand how their data compares to other data sources in the network

- A protocol detailing participation would make it easier to get IRB/governance approval

# Introducing the OHDSI Evidence Network Study!

## 5 Rationale and Background

The Observational Health Data Sciences and Informatics (OHDSI) federated network is a collaborative effort aimed at leveraging healthcare data from multiple institutions for large-scale federated observational research. In its current state there are over 500 data sources from over 49 countries mapped to the OMOP Common Data Model, the standard that enables such ambitious evidence generation. One major challenge of federated network studies is the assessment of network data quality, study feasibility and data fitness-for-use across these data sources in such a way that does not strain the time and resources of data holders while still supporting rigorous evidence generation that engenders trust and buy-in from the larger research community.

To facilitate collaborative research efforts and ensure the quality and integrity of the data across the OHDSI network, it is imperative to understand the characteristics and variability of the databases within the network. This study aims to collect summary statistics from participating sites to describe the databases and learn about the network as a whole. The output of the study will inform and enhance the research capabilities of the OHDSI community by enabling rapid data quality and fitness-for-use assessments.

### 5.1 Research Questions

The main research question of this study is:

*What are the population-level characteristics of the databases within the OHDSI federated network?*

Please fill out a short google form to indicate your intent to join the study