HowOften: A Large-Scale Incidence Generation Initiative

OHDSI Community Call
June 20, 2023 • 11 am ET

Upcoming Community Calls

Date	Topic
June 27	Recent Publication Presentations
July 4	No Meeting
July 11	European Symposium Review
July 18	Vulcan: An HL7 FHIR Accelerator Transforming Clinical & Translational Research
July 25	Around The Asia-Pacific Region

Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?

OHDSI Shoutouts!

Congratulations to the team of **Faaizah Arshad, Martijn Schuemie, Fan Bu, Evan Minty, Thamir Alshammari, Lana Lai, Talita Duarte-Salles, Stephen Fortin, Fredrik Nyberg, Patrick Ryan, George Hripcsak, Dani Prieto-Alhambra, and Marc Suchard** on the publication of **Serially Combining Epidemiological Designs Does Not Improve Overall Signal Detection In Vaccine Safety Surveillance** in *Drug Safety*.

Drug Safety
https://doi.org/10.1007/s40264-023-01324-1

ORIGINAL RESEARCH ARTICLE

Serially Combining Epidemiological Designs Does Not Improve Overall Signal Detection in Vaccine Safety Surveillance

Faaizah Arshad[1,2] · Martijn J. Schuemie[1,2,3] · Fan Bu[1,2] · Evan P. Minty[4] · Thamir M. Alshammari[5] · Lana Y. H. Lai[6] · Talita Duarte-Salles[7] · Stephen Fortin[3] · Fredrik Nyberg[8] · Patrick B. Ryan[2,3] · George Hripcsak[2,9,10] · Daniel Prieto-Alhambra[11,12] · Marc A. Suchard[1,2,13,14]

Accepted: 29 May 2023

Abstract

Introduction Vaccine safety surveillance commonly includes a serial testing approach with a sensitive method for 'signal generation' and specific method for 'signal validation.' The extent to which serial testing in real-world studies improves or hinders overall performance in terms of sensitivity and specificity remains unknown.

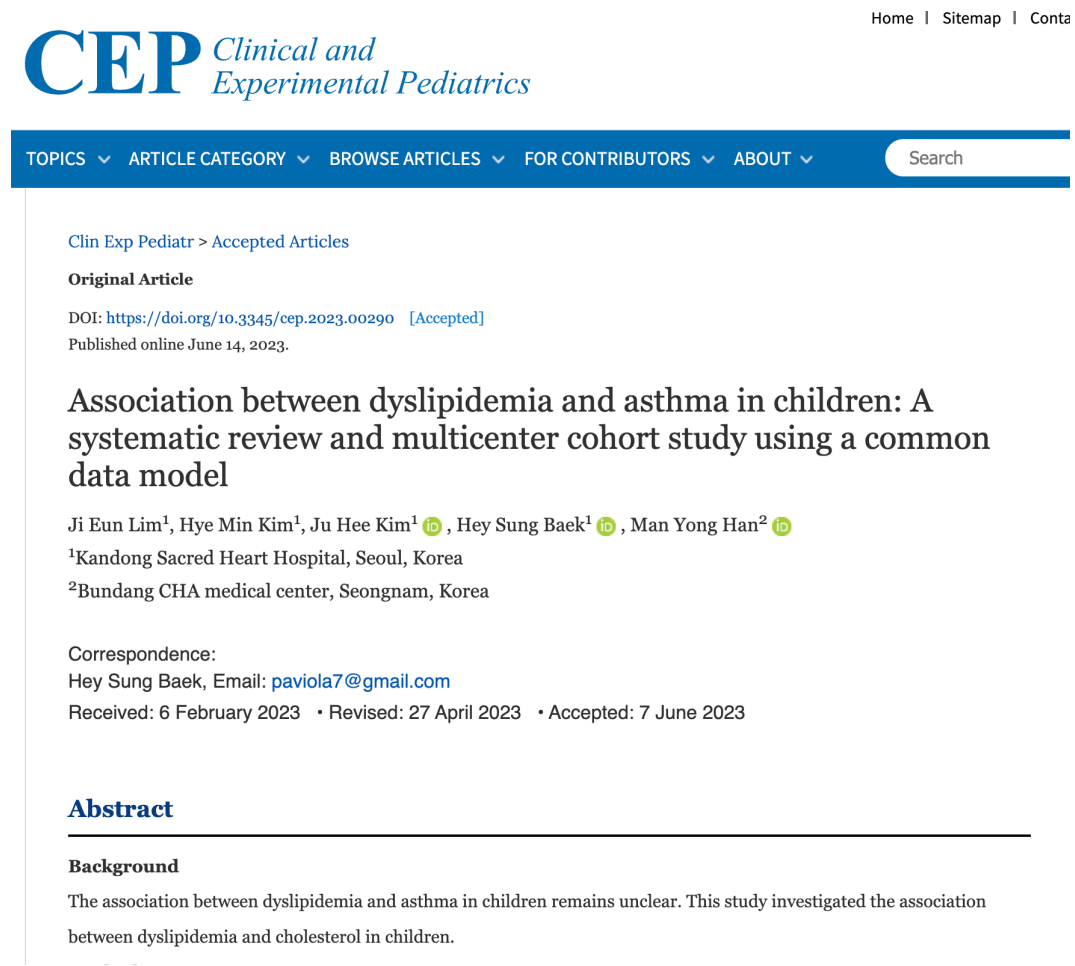
Methods We assessed the overall performance of serial testing using three administrative claims and one electronic health record database. We compared type I and II errors before and after empirical calibration for historical comparator, self-controlled case series (SCCS), and the serial combination of those designs against six vaccine exposure groups with 93 negative control and 279 imputed positive control outcomes.

Results The historical comparator design mostly had fewer type II errors than SCCS. SCCS had fewer type I errors than the historical comparator. Before empirical calibration, the serial combination increased specificity and decreased sensitivity. Type II errors mostly exceeded 50%. After empirical calibration, type I errors returned to nominal; sensitivity was lowest when the methods were combined.

Conclusion While serial combination produced fewer false-positive signals compared with the most specific method, it generated more false-negative signals compared with the most sensitive method. Using a historical comparator design followed by an SCCS analysis yielded decreased sensitivity in evaluating safety signals relative to a one-stage SCCS approach. While the current use of serial testing in vaccine surveillance may provide a practical paradigm for signal identification and triage, single epidemiological designs should be explored as valuable approaches to detecting signals.

OHDSI Shoutouts!

Congratulations to the team of **Ji Eun Lim, Hye Min Kim, Ju Hee Ki, Hey Sung Baek, and Man Yong Han** on the publication of **Association between dyslipidemia and asthma in children: A systematic review and multicenter cohort study using a common data model** in *Clinical and Experimental Pediatrics*.



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CEP *Clinical and Experimental Pediatrics*

TOPICS ARTICLE CATEGORY BROWSE ARTICLES FOR CONTRIBUTORS ABOUT Search

Clin Exp Pediatr > Accepted Articles

Original Article

DOI: https://doi.org/10.3345/cep.2023.00290 [Accepted]
Published online June 14, 2023.

Association between dyslipidemia and asthma in children: A systematic review and multicenter cohort study using a common data model

Ji Eun Lim[1], Hye Min Kim[1], Ju Hee Kim[1], Hey Sung Baek[1], Man Yong Han[2]

[1]Kandong Sacred Heart Hospital, Seoul, Korea
[2]Bundang CHA medical center, Seongnam, Korea

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Hey Sung Baek, Email: paviola7@gmail.com
Received: 6 February 2023 • Revised: 27 April 2023 • Accepted: 7 June 2023

Abstract

Background

The association between dyslipidemia and asthma in children remains unclear. This study investigated the association between dyslipidemia and cholesterol in children.

OHDSI Shoutouts!

Any shoutouts from the community? Please share and help promote and celebrate OHDSI work!

Do you have anything you want to share? Please send to sachson@ohdsi.org so we can highlight during this call and on our social channels.
Let's work together to promote the collaborative work happening in OHDSI!

Three Stages of The Journey

Where Have We Been?

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Upcoming Workgroup Calls

Date	Time (ET)	Meeting
Tuesday	1 pm	Common Data Model
Wednesday	12 pm	Health Equity
Wednesday	1 pm	Perinatal & Reproductive Health
Friday	9 am	Phenotype Development & Evaluation
Friday	9 am	GIS – Geographic Information Systems Development
Friday	1 pm	Clinical Trials
Monday	9 am	Vaccine Vocabulary
Monday	10 am	Africa Chapter
Monday	11 am	Data Bricks User Group
Monday	4 pm	Eyecare & Vision Research
Tuesday	9 am	OMOP CDM Oncology Genomic Subgroup

Another Showcase Record!

Thank you to all community members who shared their brief reports for the 2023 OHDSI Global Symposium. We are thrilled to announce that **we set ANOTHER community record with more than 160 submissions** for our expanded Collaborator Showcase this October!

OHDSI HADES releases: Capr 2.0.4

Capr 2.0.4 | Reference | Articles | Changelog | HADES

Capr

Capr is part of HADES

Introduction

The goal of Capr, pronounced 'kay-pr' like the edible flower, is to provide a language for expressing OHDSI Cohort definitions in R code. OHDSI defines a cohort as "a set of persons who satisfy one or more inclusion criteria for a duration of time" and provides a standardized approach for defining them (Circe-be). Capr exposes the standardized approach to cohort building through a programmatic interface in R which is particularly helpful when creating a large number of similar cohorts. Capr version 2 introduces a new user interface designed for readability with the goal that Capr code being a human readable description of a cohort while also being executable on an OMOP Common Data Model.

Learn more about the OHDSI approach to cohort building in the cohorts chapter of the Book of OHDSI.

Installation

Capr can be installed via:

```
# install.packages("Capr")
```

Users can install the current development version of Capr from GitHub with:

Links

Browse source code

Report a bug

Ask a question

License

Full license

Apache License (>= 2)

Citation

Citing Capr

Developers

Martin Lavallee
Author, maintainer

Adam Black
Author

Dev status

codecov 74%

R-CMD-check passing

OHDSI HADES releases: DeepPatientLevelPrediction 1.1.6

DeepPatientLevelPrediction 1.1.6 | Get started | My first deep learning model | Reference | Articles | Changelog | HADES

DeepPatientLevelPrediction

R-CMD-check passing | codecov 100%

Introduction

DeepPatientLevelPrediction is an R package for building and validating deep learning patient-level predictive models using data in the OMOP Common Data Model format and OHDSI PatientLevelPrediction framework.

Reps JM, Schuemie MJ, Suchard MA, Ryan PB, Rijnbeek PR. Design and implementation of a standardized framework to generate and evaluate patient-level prediction models using observational healthcare data. J Am Med Inform Assoc. 2018;25(8):969-975.

Features

- Adds deep learning models to use in the OHDSI PatientLevelPrediction framework.
- Allows to add custom deep learning models.
- Includes an MLP, ResNet and a Transformer
- Allows to use all the features of PatientLevelPrediction to validate and explore your model performance.

Technology

DeepPatientLevelPrediction is an R package. It uses torch in R to build deep learning models without using python.

Links

Browse source code

Report a bug

Ask a question

License

Apache License 2.0

Citation

Citing DeepPatientLevelPrediction

Developers

Egill Fridgeirsson
Author, maintainer

Jenna Reps
Author

Seng Chan You
Author

Chungsoo Kim
Author

Henrik John
Author

European Symposium

European Symposium

July 1-3 • Rotterdam, Neth.

ohdsi-europe.org

Time	Description			Location
8:00 – 9:00	**Registration and Coffee**			Queen's Lounge
9:00 – 9:10	**Welcome to the European OHDSI Journey** Speaker: Peter Rijnbeek, PhD, Chair, Department of Medical Informatics, Erasmus MC			Theatre
9:10 – 9:40	**Journey of OHDSI: Where have we been and where we can go together?** Speaker: Patrick Ryan, PhD, Janssen Research and Development, Department of Biomedical Informatics, Columbia University Medical Center			Theatre
9:40 – 11:00	**European Initiatives Using the OMOP CDM** Moderator: Renske Los, PhD, Assistant Professor of Medical Informatics, Department of Medical Informatics, Erasmus MC Multiple presentations of European Projects and Initiatives			Theatre
11:00 – 11:30	**Coffee Break**			Queen's Lounge
11:30 – 12:45	**Collaborator Showcase: Rapid fire presentations** Moderator: Katia Verhamme, MD, Associate Professor of Use and Analysis of Observational Data, Department of Medical Informatics, Erasmus MC, Rotterdam. Abstract Selection Ongoing			Theatre
12:45 – 13:45	**Lunch**			La Fontaine & Odyssee Room
13:00 – 14:30	**OHDSI Collaborator Showcase** **Poster presentations and open-source software demonstrations from OHDSI collaborators:** - Observational data standards and management - Open-source analytics development - National nodes	**La Fontaine & Odyssee Room**	**Early Investigators Mentor Meetings** Lead: Ross Williams, Department of Medical Informatics, Erasmus MC Rotterdam	Queen's Lounge
14:30 – 16:00	**OHDSI Collaborator Showcase** **Poster presentations and open-source software demonstrations from OHDSI collaborators:** - Clinical applications - Methodological research	**La Fontaine & Odyssee Room**	**Workgroup Q/A** OHDSI Workgroup Leads available for Q/A in breakout rooms	La Fontaine & Odyssee Room
16:00 – 16:30	**OHDSI Community Evidence in the Spotlight** Selected Presentation from the Community			Theatre
16:30 – 17:45	**Data Analysis and Real World Interrogation Network (DARWIN EU®)** Multiple speakers from the DARWIN EU® Coordination Center Questions and Answers Session			Theatre
17:45 – 18:00	**Closure**			Theatre
18:00 – 19:30	**Networking Reception**			Queen's Lounge

APAC Symposium

Asia-Pacific Symposium

July 13-14 • Sydney, Australia

ohdsi.org/2023apacsymposium

2023 OHDSI Symposium Agenda

Day 1 (July 13) · Main Conference

8:00-9:00 · Registration & light breakfast
9:00-9:20 · Welcome Session

Session 1: OHDSI Global
9:20-9:50 · Keynote – Engineering an open science system that builds trust, confidence and addresses the needs of regulators, clinicians, and consumers
9:50-10:20 · Transforming health: What do regulators, clinicians, and consumers really want to know about healthcare and how can OHDSI help
10:20-10:40 · break

Session 2: Research
10:40-11:00 · Presentation of study results
11:00-12:00 · Panel discussion – regulators, clinicians and consumers (response from stakeholders)
12:00-13:30 · Lunch & poster presentation

Session 3: OHDSI APAC
13:30-14:30 · OMOP/FHIR: Overcoming challenges through collaboration
14:30-15:30 · Panel discussion – APAC regional chapters
15:30-16:00 · Closing remarks
16:00-17:30 · Networking reception

Day 2 (July 14) · Tutorials

Tutorials will be led by Patrick Ryan, Martijn Schuemie, Marc Suchard, Mui Van Zandt, Nicole Pratt, and others on the topic of "How to run a network study."

9:00-10:20 · ETL
10:20-10:40 · break
10:40-12:00 · Characterization
12:00-13:00 · break
13:00-15:00 · Population-Level Estimation
15:00-15:20 · break
15:20-17:20 · Patient-Level Prediction

Global Symposium

Global Symposium

Oct. 20-22 • East Brunswick, NJ, USA

ohdsi.org/OHDSI2023

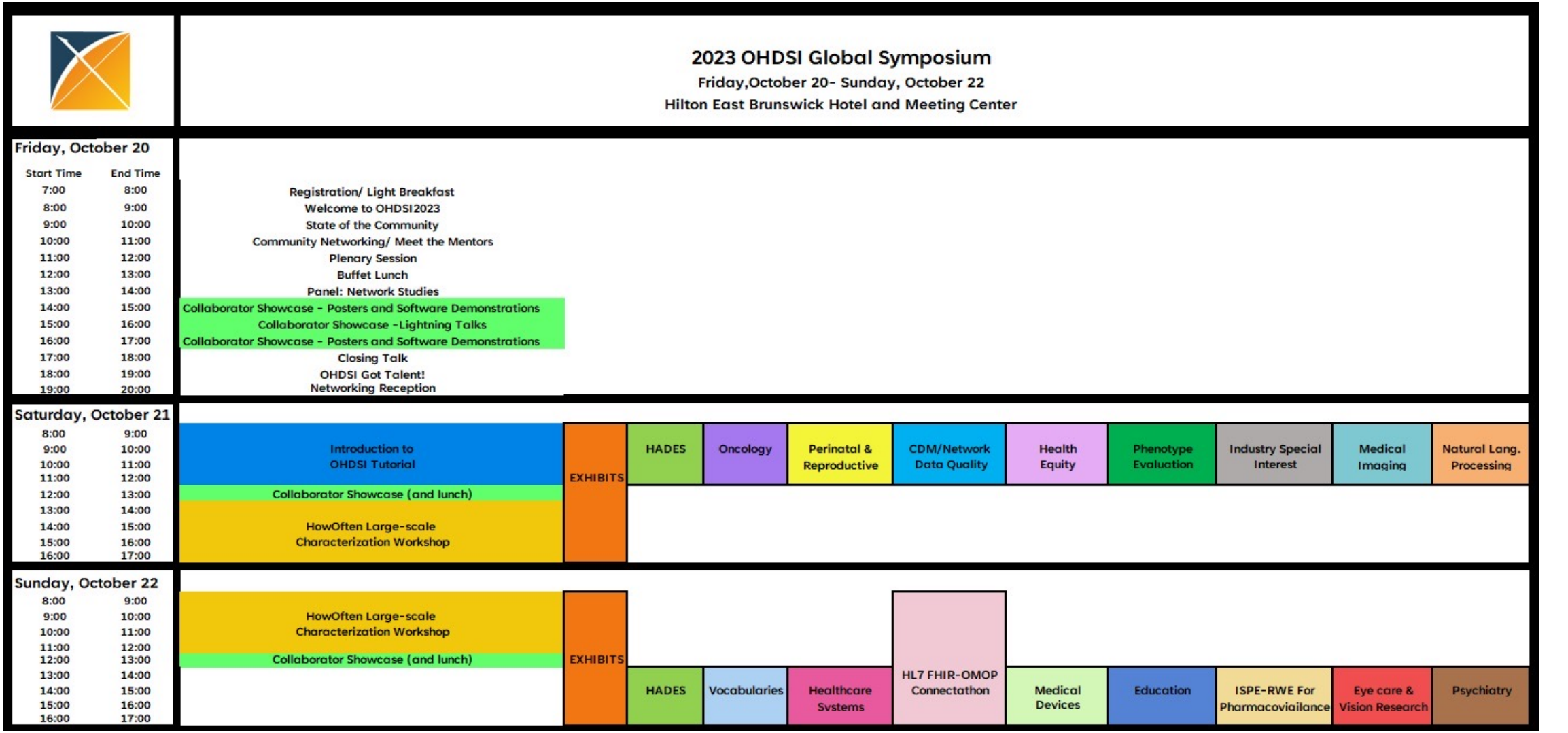
OHDSI 2023 Global Symposium

** This agenda is tentative and subject to change*

October 20-22 • East Brunswick, NJ, USA

	Friday, Oct 20	Saturday, Oct 21	Sunday, Oct 22
8:00am	Welcome to OHDSI2023!	Intro to OHDSI Tutorial & OHDSI workgroup activities	OHDSI collaborative workshop: HowOften
9:00am	State of the Community		
10:00am	Community networking		
11:00am	Plenary session		
12:00pm	Lunch	**Collaborator Showcase: posters & demos**	**Collaborator Showcase: posters & demos**
1:00pm	Panel: Network studies	OHDSI collaborative workshop: HowOften	OHDSI workgroup activities
2:00pm	**Collaborator Showcase: posters & demos**		
3:00pm	**Collaborator Showcase: Lightning talks**		
4:00pm	**Collaborator Showcase: posters & demos**		
5:00pm	Closing talk	Free time ☺	Time to go home ☹
6:00pm	OHDSI Got Talent!		

Global Symposium



2023 OHDSI Global Symposium

Friday,October 20- Sunday, October 22

Hilton East Brunswick Hotel and Meeting Center

Friday, October 20

Start Time	End Time	
7:00	8:00	Registration/ Light Breakfast
8:00	9:00	Welcome to OHDSI2023
9:00	10:00	State of the Community
10:00	11:00	Community Networking/ Meet the Mentors
11:00	12:00	Plenary Session
12:00	13:00	Buffet Lunch
13:00	14:00	Panel: Network Studies
14:00	15:00	Collaborator Showcase - Posters and Software Demonstrations
15:00	16:00	Collaborator Showcase -Lightning Talks
16:00	17:00	Collaborator Showcase - Posters and Software Demonstrations
17:00	18:00	Closing Talk
18:00	19:00	OHDSI Got Talent!
19:00	20:00	Networking Reception

Saturday, October 21

8:00	9:00	Introduction to OHDSI Tutorial	EXHIBITS	HADES	Oncology	Perinatal & Reproductive	CDM/Network Data Quality	Health Equity	Phenotype Evaluation	Industry Special Interest	Medical Imaging	Natural Lang. Processing
9:00	10:00											
10:00	11:00											
11:00	12:00											
12:00	13:00	Collaborator Showcase (and lunch)										
13:00	14:00											
14:00	15:00	HowOften Large-scale Characterization Workshop										
15:00	16:00											
16:00	17:00											

Sunday, October 22

8:00	9:00	HowOften Large-scale Characterization Workshop	EXHIBITS				HL7 FHIR-OMOP Connectathon				
9:00	10:00										
10:00	11:00										
11:00	12:00										
12:00	13:00	Collaborator Showcase (and lunch)									
13:00	14:00			HADES	Vocabularies	Healthcare Systems		Medical Devices	Education	ISPE-RWE For Pharmacovigilance	Eye care & Vision Research	Psychiatry
14:00	15:00										
15:00	16:00										
16:00	17:00										

Job Openings – This Week In OHDSI page

OMOP Data Analyst

Apply

Wayne, PA, Unites States of America

Full time
Posted 5 Days Ago
R1363929

OMOP Data Analyst
Job Overview
Under broad guidance, performs data analytics activities related to complex business problems and issues to provide insight to decision makers. May provide analytic support for internal project teams and for external client consulting or services engagements.

Essential Functions
• Under broad guidance, performs quantitative or qualitative analyses to support the development of solutions for internal or external client project teams.
• Identifies and interprets trends and patterns in datasets to support the development of recommendations .
• Constructs impact assessment based on business data and market knowledge. Creates specifications for reports and analysis based on business needs and required or available data elements.
• May directly produce datasets and reports for analysis using system reporting tools.
• Verifies data for accuracy and completeness.
• May manipulate and transform data to optimize analyses.
• Performs audits of own work or that of others to ensure conformance with established procedures or to resolve routine issues.
• May work with stand alone data systems or enterprise wide tools supporting activities such as inquiry resolution, data validation, and trend analysis.
• SQL programming is a must.
• OMOP data model work experience is required.
• Experience with clinical data, EHR or pharmaceutical data is required.

About Us

IQVIA

IQVIA is a world leader in using data, technology, advanced analytics, and expertise to help customers drive healthcare – and human health – forward. Together with the companies we serve, we are enabling a more

Read More

COLUMBIA | COLUMBIA UNIVERSITY DEPARTMENT OF BIOMEDICAL INFORMATICS

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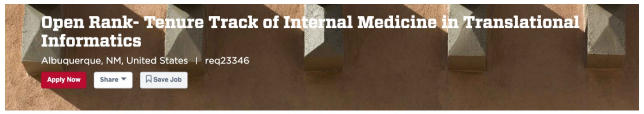
Tenure Track Faculty

#105752

Description

The Department of Biomedical Informatics (DBMI) of Columbia University seeks exceptional junior-level faculty members in the tenure track.

The positions are open to researchers interested in developing and applying informatics theory and achieving tangible benefits to health care and biology. Three particular foci are (1) machine learning for healthcare and health-related data science, (2) health information technology-based interventions to improve health care and the health of individuals and populations, and (3) translational bioinformatics.



Back to Search

Open Rank- Tenure Track of Internal Medicine in Translational Informatics

Posting Number	req23346
Employment Type	Faculty
Faculty Type	Open Rank
Hiring Department	IM Translations Informatics (B52T)
Academic Location	School of Medicine
Benefits Eligible	The University of New Mexico provides a comprehensive package of benefits including medical, dental, vision, and life insurance. In addition, UNM offers educational benefits through the tuition remission and dependent education programs. See the Benefits home page for more information.
Position Summary	The University of New Mexico, Health Sciences Center, Department of Internal Medicine, seeks a faculty member to join the Division of Translational Informatics. This position is at the Open rank and Tenure track. While the focus of the position is research-oriented, optionally, the position affords the opportunity for the candidate to have a joint clinical appointment for part-time clinical service with the University of New Mexico, and/or the Raymond G. Murphy VA Medical Center. Salary will be commensurate with experience and education.

Software Dev Analyst II - Res - G&C - CTSI

Job ID: REF9053H
Date posted: 2/20/2023

Employment Type: Full Time
Shift: Days
Location: Boston, MA

Boehringer Ingelheim is an equal opportunity global employer who takes pride in maintaining a diverse and inclusive culture. We embrace diversity of perspectives and strive for an inclusive environment which benefits our employees, patients and communities.

Senior Associate Director, Real World Data & Analytics (Remote)-232633

Description:

The purpose of this job is to:

- Generate real world evidence (RWE) to support in-line and pipeline products.
- Provide statistical advice on the analysis of real world data (RWD) to various internal and external stakeholders.
- Contribute to the RWD acquisition strategy and tool evaluation.
- Participate in the development and presentation of RWE trainings.

As an employee of Boehringer Ingelheim, you will actively contribute to the discovery, development and delivery of our products to our patients and customers. Our global presence provides opportunity for all employees to collaborate internationally, offering visibility and opportunity to directly contribute to the companies' success. We realize that our strength and competitive advantage lie with our people. We support our employees in a number of ways to foster a healthy working environment, meaningful work, diversity and inclusion, mobility, networking and work-life balance. Our competitive compensation and benefit programs reflect Boehringer Ingelheim's high regard for our employees.

Duties & Responsibilities:

- Provide expert advice in the analysis of real world data (such as medical claims, electronic health records, registries) for stakeholders in epidemiology, market access / HEOR, medical affairs, and other functional areas. These analyses may include:

R&D

Associate Director, Observational Health Data Analytics – Global Epidemiology

JOB TITLE	Associate Director, Observational Health Data Analytics – Global Epidemiology
FUNCTION	R&D
SUB FUNCTION	Epidemiology
LOCATION	Raritan, New Jersey, United States; Horsham, Pennsylvania, United States; United States; Titusville, New Jersey, United States
DATE POSTED	May 23 2023
REQUISITION NUMBER	2306123161W

Apply Now

Research Programmer Analyst (RPA) Remote/Hybrid
IT EDW Operations
Full Time
72973BR

Job Summary

Work as a Research Programmer Analyst (RPA) on a small team to develop, operate, and maintain ETL processes, clinical data warehouses, and associated data products for health research.

The RPA's role is multi-faceted, involving domain knowledge (clinical data, research informatics), technical expertise, and communication skills. The RPA will operate, monitor, and enhance existing ETL processes and infrastructure, develop data profiles, perform quality assessments, investigate data anomalies, and create/maintain related documentation and annotated data dictionaries. The RPA will routinely communicate with researchers, clinicians, data scientists, and other stakeholders to stay aligned with needs and understand data requirements and translate them into efficient, well-documented ETL solutions.

The RPA will support multiple projects and data assets, including the PCORnet CDM (and related research projects), the UC Health Data Warehouse (UC HDW Operational OMOP), and the "All of Us" Research Program.

Responsibilities include, but are not limited to the following:

1. Work closely with researchers, data scientists, and other stakeholders to understand their data requirements and translate them into efficient ETL solutions.
2. Develop, implement, and maintain ETL processes using SSIS and t-SQL stored procedures to extract, transform, and load data from Epic EHR and other sources into common data models like PCORnet CDM and OHDSI's OMOP.
3. Ensure data quality and integrity throughout the ETL process by performing data mapping, transformation, and validation.
4. Optimize ETL processes for performance, scalability, and reliability, identifying and resolving bottlenecks as needed.
5. Collaborate with team members to integrate data from disparate sources and ensure seamless data flow for research purposes.
6. Maintain up-to-date knowledge of the healthcare domain, including clinical terminologies, workflows, data standards, and regulations.
7. Adhere to data security best practices and ensure compliance with privacy regulations like HIPAA.
8. Provide (and request) technical support and guidance to (and from) other team members as needed.
9. Contribute to project management, setting priorities, and meeting deadlines.

To see the salary range for this position (we recommend that you make a note of the job code and use that to look up): TCS Non-Academic Titles Search (ucop.edu)

Please note: The compensation ranges listed online for roles not covered by a bargaining unit agreement are very wide, however a job offer will typically fall in the range of 80% - 120% of the established mid-point. An offer will take into consideration the experience of the final candidate AND the current salary level of individuals working at UCSF in a similar role.

For roles covered by a bargaining unit agreement, there will be specific rules about where a new hire would be placed on the range.

To learn more about the benefits of working at UCSF, including total compensation, please visit: https://ucnet.universityofcalifornia.edu/compensation-and-benefits/index.html

Where Are We Going?

Any other announcements of upcoming work, events, deadlines, etc?

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