

The DARWIN EU Initiative

OHDSI Community Call May 3, 2022 • 11 am ET

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Upcoming OHDSI Community Calls

Date	Topic	
May 10	Mother's Day-Themed Breakout Discussions	
May 17	OHDSI Debates	
May 24	Open Studies	
May 31	Workgroup OKRs	
June 7	Welcome to OHDSI	
June 14	OHDSI Scholarship (Publications)	
June 21	10-Minute Tutorials	
June 28	European Symposium Recap	







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May 10: Mother's Day Breakouts





Data Standards Discussion

Recommended best practices for modeling pregnancy episodes and mother-child linkage

Jill Hardin and Mui Van Zandt





Community Building Discussion

How can OHDSI support collaborator mothers to advance their personal and professional development?

Rupa Makadia and Sarah Seager







Clinical Research Discussion

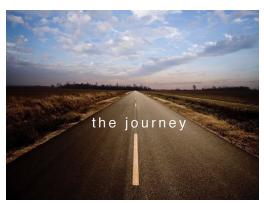
Clinical Research Opportunities: Brainstorm on maternal health

Alison Callahan, Ru-fong Cheng and Noémie Elhadad



Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?







OHDSI Shoutouts!



Congratulations to the team of Anna Ostropolets, Xintong Li, Rupa Makadia, Gowtham Rao, Peter Rijnbeek, Talita Duarte-Salles, Anthony Sena, Azza Shaoibi, Marc Suchard, Patrick Ryan, Daniel Prieto-Alhambra and George Hripcsak on the publication of Factors Influencing **Background Incidence Rate Calculation: Systematic Empirical Evaluation Across an International Network of Observational** Databases in Frontiers in Pharmacology.





Prieto-Alhambra² and _ George Hripcsak^{1,8}*



OHDSI Shoutouts!



Congratulations to the team of Juan Quiroz, Tim Chard, Zhisheng Sa, Angus Ritchie, Louisa Jorm and Blanca Gallego on the publication of Extract, transform, load framework for the conversion of health databases to OMOP in PLOS One.

PLOS ONE

RESEARCH ARTICLE

Extract, transform, load framework for the conversion of health databases to OMOP

Juan C. Quiroz₀¹*, Tim Chard¹, Zhisheng Sa¹, Angus Ritchie₀^{2,3}, Louisa Jorm¹, Blanca Gallego¹

1 Centre for Big Data Research in Health, UNSW, Sydney, Australia, 2 Concord Clinical School, University of Sydney, Sydney, Australia, 3 Health Informatics Unit, Sydney Local Health District, Camperdown, Australia

* iuan.guiroz@unsw.edu.au



G OPEN ACCESS

Citation: Quiroz JC, Chard T, Sa Z, Ritchie A, Jorm L, Gallego B (2022) Extract, transform, load framework for the conversion of health databases to OMOP. PLoS ONE 17(4): e0266911. https://doi.org/10.1371/journal.pone.0266911

Editor: Thomas Martin Deserno, University of Braunschweig - Institute of Technology, GERMANY

Received: October 25, 2021

Accepted: March 29, 2022

Published: April 11, 2022

Abstract

Common data models standardize the structures and semantics of health datasets, enabling reproducibility and large-scale studies that leverage the data from multiple locations and settings. The Observational Medical Outcomes Partnership Common Data Model (OMOP CDM) is one of the leading common data models. While there is a strong incentive to convert datasets to OMOP, the conversion is time and resource-intensive, leaving the research community in need of tools for mapping data to OMOP. We propose an extract, transform, load (ETL) framework that is metadata-driven and generic across source datasets. The ETL framework uses a new data manipulation language (DML) that organizes SQL snippets in YAML. Our framework includes a compiler that converts YAML files with mapping logic into an ETL script. Access to the ETL framework is available via a web application, allowing users to upload and edit YAML files via web editor and obtain an ETL SQL script for use in development environments. The structure of the DML maximizes readability refactoring, and maintainability, while minimizing technical debt and standardizing the writing of ETL operations for mapping to OMOP. Our framework also supports transparency of the mapping process and reuse by different institutions.

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OHDSI Shoutouts!



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

Have a study published? Please send to sachson@ohdsi.org so we can share 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?
Where Are We Now?
Where Are We Going?







Upcoming Workgroup Calls



Date	Time (ET)	Meeting
Wednesday	8 am	Psychiatry
Wednesday	9 am	ATLAS
Wednesday	11 am	Open-Source Community
Wednesday	12 pm	Health Equity
Wednesday	4 pm	FHIR and OMOP Data Model Harmonization Subgroup (ZOOM)
Wednesday	7 pm	Medical Imaging
Thursday	10 am	Data Quality Dashboard
Thursday	12 pm	FHIR and OMOP Oncology Subgroup
Friday	9 am	GIS-Geographic Information System
Monday	8 am	Early-Stage Researchers
Monday	10 am	Healthcare Systems Interest Group
Tuesday	9 am	OMOP CDM Oncology

www.ohdsi.org/upcoming-working-group-calls







Get Access To Different Teams/WGs/Chapters



ATLAS	
Clinical Trials	Phenotype Development and Evaluation
Common Data Model	Population-Level Effect Estimation / Patient-Level Prediction
Data Quality Dashboard Development	Psychiatry
Early-stage Researchers	Registry (formerly UK Biobank)
Education Work Group	☐ Vaccine Evidence
Eyecare and Vision Research	
FHIR and OMOP	6. Select the chapter(s) you want to join
Geographic Information System (GIS)	Africa
HADES Health Analytics Data-to-Evidence Suite	☐ Australia
Healthcare Systems Interest Group (formerly EHR)	China
Health Equity	☐ Europe
Latin America	Japan
Medical Devices	Korea
Medical Imaging	Singapore
Natural Language Processing	Taiwan
OHDSI APAC	
OHDSI APAC Steering Committee	
OHDSI Steering Committee	You can print a copy of your answer after you submit



you can help support the OHDSI community.



2022 OHDSI Global Symposium



Get Access To Different Teams/WGs/Chapters



ATLAS	
	Phenotype Development and Evaluation
Clinical Trials	Population-Level Effect Estimation / Patient-Level Prediction
Common Data Model	Psychiatry
Data Quality Dashboard Development	
Early-stage Researchers	Registry (formerly UK Biobank)
Education Work Group	☐ Vaccine Evidence
Eyecare and Vision Research	
FHIR and OMOP	6. Select the chapter(s) you want to join
	Africa
Geographic Information System (GIS)	Australia
HADES Health Analytics Data-to-Evidence Suite	
Healthcare Systems Interest Group (formerly EHR)	China
Health Equity	Europe
Latin America	Japan
Medical Devices	Korea
Medical Imaging	Singapore
Natural Language Processing	Taiwan
OHDSI APAC	
OHDSI APAC Steering Committee	You can print a copy of your answer after you submit
OHDSI Steering Committee	2.1-11
Oncology	Submit





OHDSI Dev Con

OHDSI DevCon 2022 Welcomes & Mentors New Contributors To Our Open-Source Environment

The Open-Source Community hosted the first Dev Con on Friday, April 22 as a way of accepting and mentoring new contributors to our environment. Organized by **Paul Nagy** and **Adam Black**, the event included eight workshops, talks and a panel discussion to both welcome and engage both current and future developers within OHDSI.

All videos from this session have or will be uploaded to this page. A big announcement from DevCon was the formation of the Khieron Contributor Cohort, which will help onboard and mentor open-source developers in the community. If you are interested in joining the effort, please fill out the application.

To learn more about the Khieron Contributor Cohort, please check out the State of the Open Source Community presentation below.



Source Software and Science ... Obviously." His slides are available here.

State Of The Community Presentation Panel: Putting The Pieces Toge



Agenda



Workshops

ATLAS (Anthony Sena)



WebAPI



HADES Introduction

(Adam Black)



Cohort Diagnostics

(James Gilbert)



White Rabbit

(Maxim Moinat)



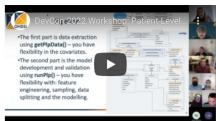
Data Quality Dashboard

(Clair Blacketer)



Patient-Level Prediction

(Jenna Reps)



Cyclops

(Marc Suchard)



www.ohdsi.org/devcon2022



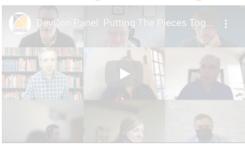


Khieron Contributor Cohort Application

State Of The Community Presentation



Panel: Putting The Pieces Together



Agenda

The event began at 8 am with several workshops that were held over the first two hours of the session. Each workshop will be loaded below th agenda.

8 am: ATLAS (Anthony Sena); HADES Introduction (Adam Black),
8:30 am: WebAPI (Anthony Sena); CohortDiagnostics (James Gilbert)
9 am: WhiteRabbit/Rabbit in a Hat (Maxim Moinat); Patient-Level Prediction (Jenna Reps)
9:30 am: Data Quality Dashboard (Clair Blacketer); Cyclops (Marc Suchard)

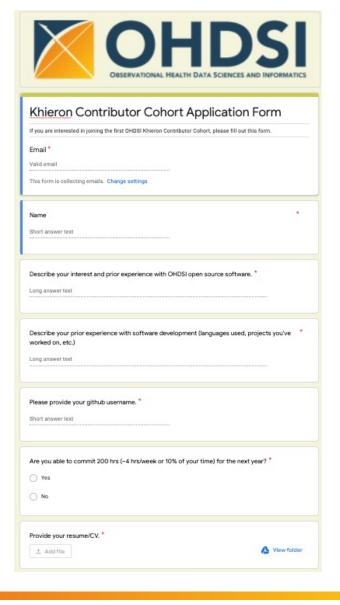
At 10 am, both Paul Nagy and Adam Black shared the State of the Open-Source Community presentation. That talk led into the keynote talk, which was given by Martijn Schuemie.

The event closed with <u>an industry panel discussion</u> around the theme of "Putting The Pieces Together." The panelists included OHDSI's **Lee Evans** (Broadsea), Microsoft's **Cory Stevenson** (OHDSI on Azure), AWS's **James Wiggins** (OHDSI on AWS), and Google's **Vivian Neilley** (OHDSI on Google Cloud).

Click Here To Apply For The 2022-23 Khieron Contributor Cohort

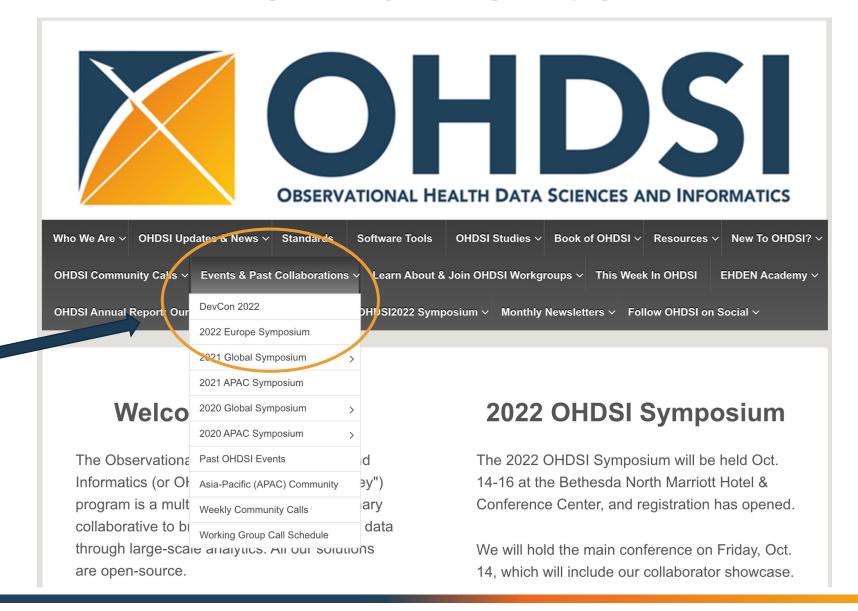
Join The Open-Source Community Workgroup in MS Teams

www.ohdsi.org/devcon2022





OHDSI Dev Con





APAC Community Calls

Date	Topic	
May 5	Cohort diagnostic tool	
May 19	Mini-tutorials #1	
June 2	Mini-tutorials #2	
June 16	Chapter Mid-year Updates	
June 30	EU Symposium Recap	
July 14	APAC Study Quarterly Updates Part I	
July 28	APAC Study Quarterly Updates Part II	

ohdsi.org/apac







Latest OHDSI Newsletter is Available



The Journey Newsletter (May 2022)

April was highlighted by DevCon 2022, which featured eight recorded opensource workshops, talks from leaders in our open-source community, a panel discussion featuring leaders from Google, Microsoft and Amazon, and a new opportunity for contribution and mentorship within the community. Learn more about this event, a new OHDSI sponsorship program and plenty more in the latest edition of The Journey newsletter. #JoinTheJourney

May Update Videocast



Community Updates

Where Have We Been?

- OHDSI DevCon brought together more than 100 collaborators interested in open-source development for a session of workshops, talks and a full panel, all of which are available on the DevCon homepage. Learn more about this event, and the new Khieron Contributor Cohort. later in this newsletter.
- Our community produced 10 peer-reviewed publications this month, with variety in both focuses and geographies. Links to each publication is available at the bottom of this newsletter.

Where Are We Now?

- OHDSI workgroups continue to address important challenges across data standards, methods research, open-source development and clinical applications. Within the last month, the newly formed Eye Care & Vision
 Research team shared its mission and goals with the community. Get to know what is happening and how you can impact these efforts on our workgroups homepage.
- In order to foster growth in our community of nearly 3,000 volunteers across six continents, the OHDSI Coordinating Center at Columbia University has created the OHDSI Sponsorship program. This program allows both corporations and individuals to make meaningful contributions in support of OHDSI's central coordinating activities. There are three levels of support, including donation amount and benefits to the sponsor, detailed below. Any level of support enhances both our community and our mission.

Where Are We Going?

Registration for the 2022 OHDSI Symposium, which will be held Oct. 14-16 at
the Bethesda North Marriott Hotel & Conference Center, is now open. The main
conference will held Friday, Oct. 14, while a full-day tutorial for community
newcomers entitled "An Introductory Journey From Data To Evidence" will be
held Saturday, Oct. 15. Workgroup activities will be held throughout Oct. 15-16.

DevCon Addresses State Of Open-Source Community, Opens Opportunities For Mentorship Among New Developers

Time (ET)	Track 1	Track 2	
8 am	ATLAS (Anthony Sena)	HADES Introduction (Adam Black)	
8:30 am	WebAPI (Anthony Sena)	CohortDiagnostics (James Gilbert)	
9 am	White Rabbit/Rabbit In A Hat (Maxim Moinat)	Patient-Level Prediction (Jenna Reps)	
9:30 am	Data Quality Dashboard (Clair Blacketer)	Cyclops (Marc Suchard)	
10 am	State of OHDSI Development (Adam Black and Paul Nagy)		
10:20 am	Keynote (Martijn Schuemie)		
11 am	Panel Discussion (Putting The Pieces Together) Lee Evans - Broadsea (OHDSI) Cory Stevenson - OHDSI on AArre (Microsoft) James Wiggins - OHDSI on AWS (Amazon) Vivian Neilley - OHDSI on Google Cloud		

The Open-Source Community hosted the first Dev Con recently as a way of accepting and mentoring new contributors to our environment. Organized by Paul Nagy and Adam Black, the event included eight workshops, talks and a panel discussion to both welcome and engage both current and future developers within OHDSI. All videos from the workshops and talks are available on the DevCon homepage.

An important announcement from DevCon was the formation of the Khieron Contributor Cohort, which will help onboard and mentor open-source developers in the community. This was discussed during the State of the Open-Source Community presentation. If you are interested in joining the effort, please fill out the application.

DevCon Homepage (with videos of all workshop and talks)

Khieron Contributor Cohort Application Form

Publications

Luo, C., Islam, M.N., Sheils, N.E. et al. <u>DLMM as a lossless one-shot algorithm</u> for collaborative multi-site distributed linear mixed models. Nat Commun 13, 1678 (2022). doi.org/10.1038/s41467-022-29160-4

Kim, S., Bang, Jl., Boo, D. et al. <u>Second primary malignancy risk in thyroid</u> cancer and matched patients with and without radioiodine therapy analysis from the observational health data sciences and informatics. Eur J Nucl Med Mol Imaging (2022). https://doi.org/10.1007/s00259-022-05779-9

Raventós B, Pistillo A, Reyes C, et al. Impact of the COVID-19 pandemic on diagnoses of common mental health disorders in adults in Catalonia, Spain: a population-based cohort study. BMJ Open 2022;12:e057866. doi: 10.1136/bmjopen-2021-057866

Tae-Hoon Kim, SiHyeong Noh, Youe Ree Kim, ChungSub Lee, Ji Eon Kim, Chang-Won Jeong, Kwon-Ha Yoon, Development and validation of a management system and dataset quality assessment tool for the Radiology Common Data Model (R. CDM): A case study in liver disease, International Journal of Medical Informatics, Volume 162, 2022, 104759, ISSN 1386-5056, doi.org/10.1016/j.ijmedinf.2022.104759.

Katie R Bradwell, Jacob T Wooldridge, Benjamin Amor, Tellen D Bennett, Adit Anand, Carolyn Bremer, Yun Jae Yoo, Zhenglong Qian, Steven G Johnson, Emily R Pfaff, Andrew T Girvin, Amin Manna, Emily A Niehaus, Stephanie S Hong, Xiaohan Tanner Zhang, Richard L Zhu, Mark Bissell, Nabeel Qureshi, Joel Saltz, Melissa A Haendel, Christopher G Chute, Harold P Lehmann, Richard A Moffitt, on behalf of the N3C Consortium, Harmonizing units and values of quantitative data elements in a very large nationally pooled electronic health record (EHR) dataset, Journal of the American Medical Informatics Association, 2022;, ocac054, doi.org/10.1093/jamia/ocac054





Latest OHDSI Newsletter is Available





Opening at Oxford

Dani Prieto-Alhambra's team at Oxford is recruiting a Database Programmer to join the team.

This position will contribute to the standardization and curation of large real world data from the UK and collaborate with the OHDSI, EHDEN and OPTIMA Oncology teams.



Applicant Options

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Job Details

Database Programmer

NDORMS, Botnar Research Centre, Windmill Road, Oxford, OX3 7LD

The Big Health Data Research group and the Pharmaco- and Device epidemiology research group, led by Prof Prieto-Alhambra, require an enthusiastic and skilled computer scientist or software engineer with strong programming experience, an interest in Relational Database Management Systems (RDBMSs) and a proven capacity to design and deliver database programming software. This position would ideally suit an individual who wishes to pursue a career in the growing field of health and/or biomedical informatics using standardised models for the management of real-world clinical data. We are part of the Observational Health Data Sciences and Informatics (OHDSI) community, which utilises the OMOP Common Data Model (CDM) to standardise medical data coming from different sources. The post will be based at the Botnar Research Centre, Windmill Road, Oxford, UK.

In the role you will develop new database applications for big clinical data to meet project requirements and deadlines, carry out software improvement, extension, integration and further development on existing code and develop code to validate, test, document and maintain database applications. You will also represent the project, team, and the University in collaboration meetings, conferences and at external meetings and work collaboratively with colleagues in other research groups, other departments, and partner institutions around the world as required by the projects

A degree in computer science, software engineering, health informatics or an equivalent combination of training and professional experience, proven understanding and experience in one or more RDBMSs and SQL dialects (e.g. PostgreSQL, MySQL) and excellent skills in at least one high level programming language (e.g. Python, C++, C#, etc.) are essential. You will be a good team player and have the capacity to work independently, as well as the ability to prioritize workload when working on multiple projects and meet deadlines and capacity to communicate technical and non-technical topics effectively in writing and verbally with colleagues in any related discipline. A Master or PhD (doctorate) degree in competer science, software engineering, medical informatics or equivalent and experience working in a research environment are desirable.

This is a full-time fixed-term appointment for 2 years (in the first instance)

A lower grade offer may be made (Grade 6: £29,176 - £34,804 p.a.) with commensurate reduction in responsibilities (and amendment in job title to Database Officer) if a suitable candidate cannot be found to fill the Grade 7 position.

The closing date for this position is 12 noon on Monday 23 May 2022. You will be required to upload a CV and supporting statement as part of your online application.

Contact Person: HR Assistant Vacancy ID: 157544

 Contact Phone :
 Closing Date & Time : 23-May-2022 12:00

 Pay Scale :
 STANDARD GRADE 7
 Contact Email : hr@ndoms.ox.ac.uk

Salary (£): £33,309 - £40,927

Click on the link(s) below to view documents

Filesize

157544 database programmer JD final.pdf

379.5

Return to Search Results

Apply Now

Deadline: May 23, 2022







Opening at Erasmus

Peter Rijnbeek and his team at Erasmus Medical Center is recruiting a R programmer for Health Data Science.

This position will be responsible for designing, developing, documenting, and maintaining R code that will be executed against health data that is standardized to the OMOP Common Data Model.



Published Deadline Location

14 Apr tomorrow Rotterda

JOB DESCRIPTION

The Health Data Science group at the Department of Medical Informatics is looking for multiple experienced R programmers to develop open source analytics.

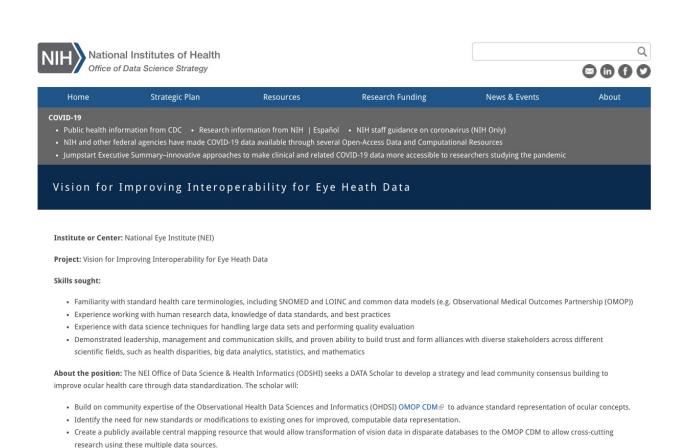
You will be responsible for designing, developing, documenting, and maintaining R code that will be executed against health data that is standardized to the OMOP Common Data Model (OMOP-CDM). This data model is maintained by the Observational Health Data Sciences and Informatics (OHDSI) initiative. The Department is leading the European Health Data and Evidence Network (EHDEN,) project in which a large data network is created with data sources that are mapped to this data model. Your work will enable the use of health data at an unprecedented scale in Europe and will facilitate the execution of impactful studies to improve patient care. We recommend applicants to review the Health Analytics Data-to-Evidence Suite (HADES) developed by OHDSI to get an understanding of the growing set of R packages.





Opening at the National Eye Institute

As mentioned by Sally Baxter and Kerry Goetz on in their recent Eye Care & Vision Research WG update, the National Eye Institute is looking for a DATA Scholar to develop a strategy and lead community consensus building to improve ocular health care through data standardization.

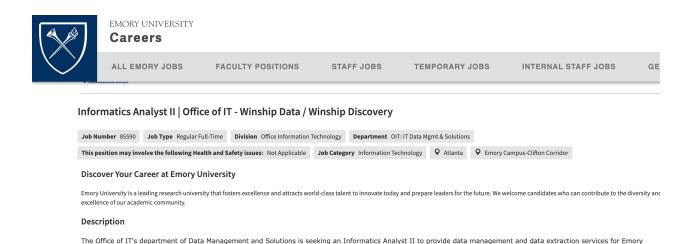






Opening at Emory University

Daniel Smith shared a recent opening at Emory University in Atlanta for an Informatics Analyst; this position will provide **OMOP** support for Winship Data and Winship Discovery projects.



- JOB DESCRIPTION:
- Works as a positive team member of a project that may consist of Business Analysts, Project Managers, Information Architects, Data Analysts, and/or Database Administrators to deliver quality applications and components within scope, on time, and within budget.

University's Winship Cancer Institution and will support projects for Winship Data and Winship Discovery. The analyst assists faculty by coordinating research data requests, defining program requirements and translating them to appropriate queries, integrating research data from multiple sources (OnCore, OpenSpecimen, and REDCap), and

- Participates in the evaluation of emerging technologies, developing proof-of-concepts, and promoting the usage of these emerging technologies.
- · Meets with clients/stakeholders, and participates in design meetings with the client.
- · Works directly with researchers to document, analyze, and translate their needs into technical designs and informatics solutions
- Gathers user requirements and creates technical documentation.
- · Applies biomedical informatics technical standards, methodologies, and principles to research-specific program needs, objectives, and outcomes.
- · Assists in the development of business requirements for additional subject areas. Follows standard operational procedures and HIPAA regulations.
- Develops strategies for managing complex data sets through maintaining data standards and metadata. Develops complex reports from disparate systems and ensures
 their accuracy.
- · Leads efforts to ensure that informatics systems support and advance the research objectives and mission of Emory University
- Performs other duties as required.

extracting/preparing the data in a format for use.

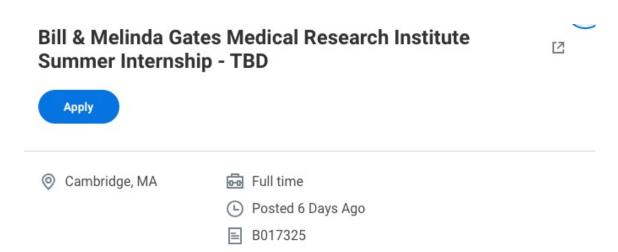




Internship at the Gates Medical Research Institute

Cynthia Sung posted a paid summer internship at the Bill & Melinda Gates Medical Research Institute on the OHDSI forums.

This candidate would transform Tuberculosis clinical trial data into the OMOP CDM.



We are focused on results. Those that can be measured. And those measured in ways beyond numbers.

We see individuals, not issues. We are inspired by passion, and compassion for the wellbeing of people. Our methods are based on logic, driven by rigor, results, issues, and outcomes. Our innovation means trying new things, learning from our mistakes, and consistently refining our approach. Our strategies help us define our path to success, but our effectiveness is based in the aggregate power of our initiatives to impact holistic change.

-Bill and Melinda Gates



2022 OHDSI Symposium

Registration is OPEN for #OHDSI2022!

The 2022 OHDSI Symposium will be held Oct. 14-16 at the **Bethesda North Marriott Hotel** & Conference Center.

www.ohdsi.org/ohdsi2022symposium

















An Introductory Journey From Data To Evidence

OHDSI2022 Tutorial • Saturday, Oct. 15 • Bethesda, Md.



The OHDSI Journey: Where Are We Going?

Patrick Ryan



Creating Cohort Definitions Asieh Golozar



Estimation

Martijn Schuemie



OMOP Common Data Model and Vocabulary



Phenotype Evaluations



Prediction

Jenna Reps



ETL – A Source Database Into OMOP CDM

Melanie Philofsky



www.ohdsi.org

Characterization

Kristin Kostka

Gowtham Rao



The OHDSI Journey: Where Do We Go From Here?

George Hripcsak

#JoinTheJourney



2022 European Symposium



www.ohdsi-europe.org/symposium-2022







Where Are We Going?

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

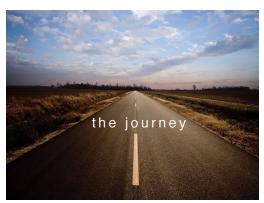






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May 3 Community Call: DARWIN EU



Peter Rijnbeek

Head of the Department of Medical Informatics

Erasmus
Medical Center

Real-world healthcare data

Erasmus MC contracted to establish DARWIN EU® Coordination Centre for the European Medicines Agency

The Erasmus MC will work closely with the European Medicines Agency on the establishment of the Coordination Centre for the Data Analysis and Real World Interrogation Network (DARWIN EU®).

