

Advances In Patient-Level Prediction

OHDSI Community Call March 16, 2021 • 11 am ET



March/April OHDSI Community Calls

Date	Topic
March 16	Community Presentations (Theme: Advances in Patient-Level Prediction)
March 23	Focus Topic: OHDSI Work with FDA Best program
March 30	OHDSI Challenge
April 6	Open Network Studies
April 13	10-Minute Tutorials
April 20	Community Presentations (Theme: Local Impacts of OHDSI)
April 27	OHDSI Networking Session





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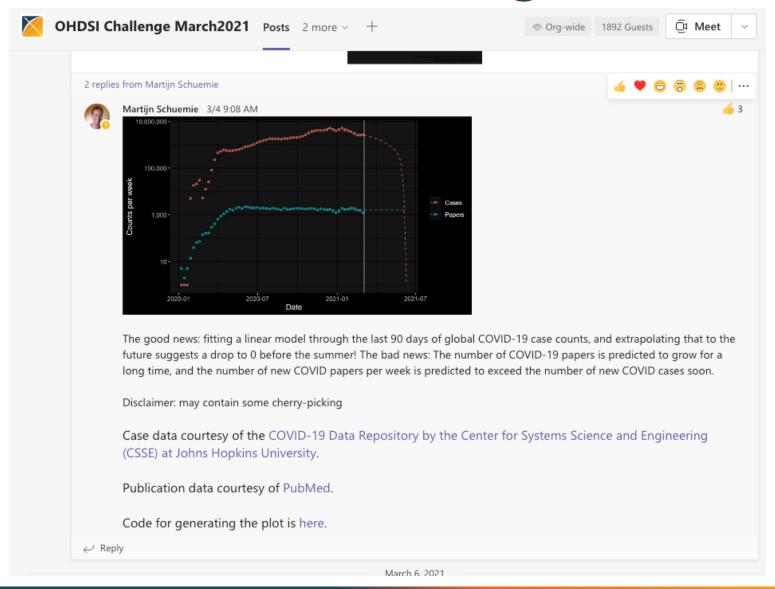
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OHDSI Challenge







OHDSI Challenge





OHDSI

General

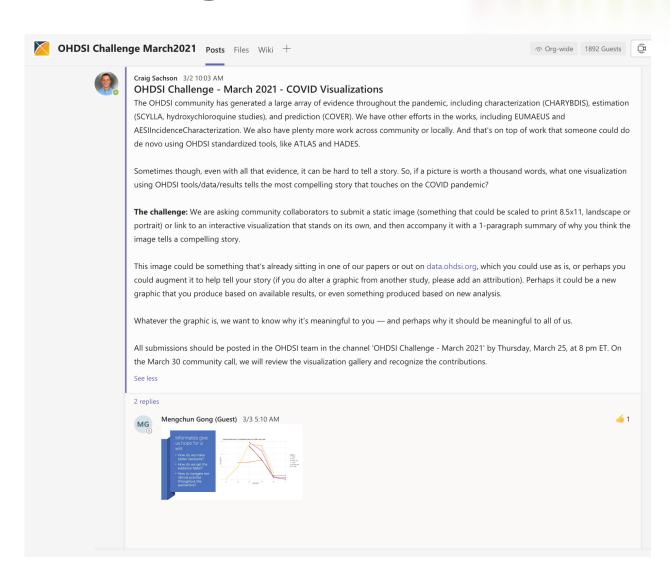
OHDSI Challenge March2021

OHDSI coordinating center administration $\ \, \bigcirc$

OHDSI Meme-a-thon

Teams Best Practices and Guidance

Technical support





Three Stages of The Journey

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







Congratulations to Alison Callahan, Vladimir Polony, José Posada, Juan Banda, Saurabh Gombar, and Nigam Shah on this study published in JAMIA: ACE: the **Advanced Cohort Engine for** searching longitudinal patient records.



INTRODUCTION

MATERIALS AND METHODS

AUTHOR CONTRIBUTIONS

SUPPLEMENTARY MATERIAL

DATA AVAILABILITY CONFLICT OF INTEREST STATEMENT

REFERENCES

Author notes

Supplementary data

OBJECTIVE

RESULTS DISCUSSION

CONCLUSION FUNDING

ACE: the Advanced Cohort Engine for searching longitudinal patient records 3 Alison Callahan M, Vladimir Polony, José D Posada, Juan M Banda, Saurabh Gombar, Nigam H Shah Author Notes Journal of the American Medical Informatics Association, ocab027, https://doi.org/10.1093/jamia/ocab027

Published: 13 March 2021 Article history ▼ Abstract

Objective

To propose a paradigm for a scalable time-aware clinical data search, and to describe the design, implementation and use of a search engine realizing this

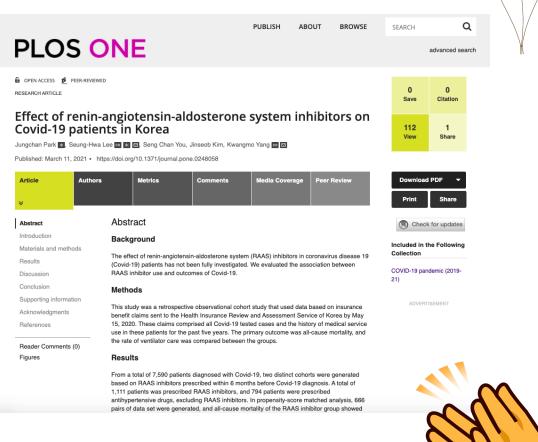
Materials and Methods

The Advanced Cohort Engine (ACE) uses a temporal query language and inmemory datastore of patient objects to provide a fast, scalable, and expressive time-aware search. ACE accepts data in the Observational Medicine Outcomes Partnership Common Data Model, and is configurable to balance performance with compute cost. ACE's temporal query language supports automatic query expansion using clinical knowledge graphs. The ACE API can be used with Python, Java, HTTP, and a Web UI.



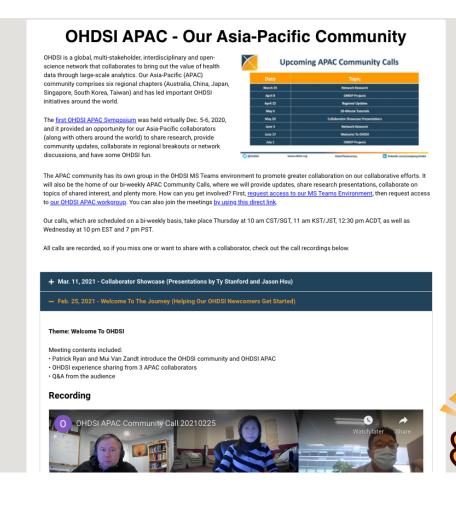


Congratulations to Jungchan Park, Seung-Hwa Lee, Seng Chan You, Jinseob Kim, Kwangmo Yang on this study published in PLOS ONE: Effect of renin-angiotensinaldosterone system inhibitors on Covid-19 patients in Korea.





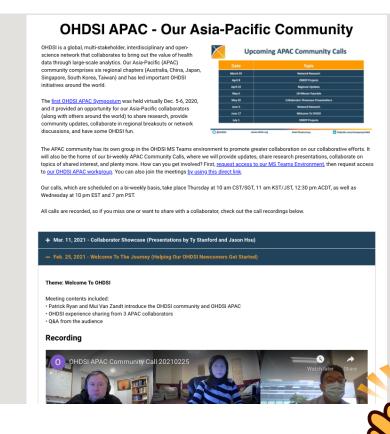
Our new OHDSI APAC web page (ohdsi.org/apac) is now live and will host the recordings of previous OHDSI APAC calls, as well as more information from the regional chapters.





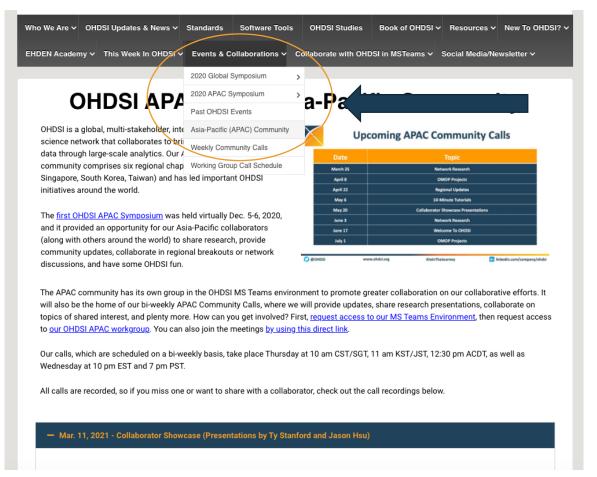


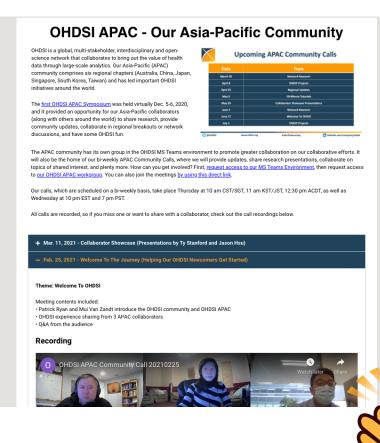














Congratulations to Seng Chan You on his new role as Research **Assistant Professor** at Severance Hospital of Yonsei University.

Collaborator Spotlight: Seng Chan You

Previous Spotlights: Clair Blacketer • Kristin Kostka • Jenny Lane • Anthony Sena • Kees van Bochove • Mui Van Zandt

Seng Chan You is a medical doctor who majored in internal medicine from Severance Hospital in Seoul, South Korea. He received his Master of Medical Science at the same university, and then he earned his PhD in the Department of Biomedical Informatics at Ajou University, and he has been a leader in the OHDSI community over the last several years. Honored with the 2018 OHDSI Titan Award for Clinical Application, Chan has led the expansion of the OHDSI network into the Asia-Pacific (APAC) region, including hosting the 2019 OHDSI Korea Symposium and assisting in the development of the 2020 OHDSI APAC Symposium.

Chan, a leader in several OHDSI workgroups, recently led the effort to have South Korean HIRA data available to the OHDSI global community during the COVID-19 study-a-thon. He c0-led the study "Association of Ticagrelor vs Clopidogrel With Net Adverse Clinical Events in Patients With Acute Coronary Syndrome Undergoing Percutaneous Coronary Intervention" which was published in JAMA in October 2020, and has co-authored many OHDSI network studies, including the LEGEND Hypertension study published in



Chan recently accepted a new position as a Research Assistant Professor at his alma mater. He recently shared thoughts on this new role, OHDSI's growth in the Asia-Pacific region, leading the COVID-19 data sharing efforts, and plenty more in the latest edition of the OHDSI Collaborator Spotlight.

What is your background, and how did you get connected to the OHDSI community?

I completed my residency in internal medicine in 2016. I was one of the stereotypical doctors who usually called the IT team when the computer didn't work, At that time, I got to know OHDSI, and I was drawn to the vision of OHDSI. I believed that healthcare data should be standardized, believing it could be possible within a few years. So I decided to study biomedical data science at Ajou University to learn biomedical data science and join OHDSI.

South Korea was one of the original COVID hotspots. Can you talk about what you learned from that experience, and how important it was to connect HIRA data with the OHDSI COVID study-a-thon?

Indeed, South Korea is one of the countries most affected by COVID-19 from the very early stages of this pandemic. Explosive outbreaks occurred across South Korea in the first two months of the pandemic. When I attended the OHDSI meeting during early 2020, many OHDSIers were worried about the explosive outbreak of COVID-19 in Korea. As COVID-19 became a real pandemic, international collaboration became more important to tackle this disease. At that time, humans knew little about this novel infectious disease, and many unproven treatments were proposed. Though it was crucial to produce real-world data and evidence for COVID-19, most institutions did not share their medical data to let other researchers



https://www.ohdsi.org/spotlight-seng-chan-you/







school of Biomedicanformatics

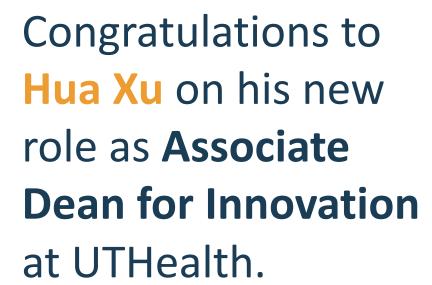
PROSPECTIVE STUDENTS (

CURRENT STUDENTS

CONTINUING EDUCATION

News

Academic Update Newslette



Hua Xu, PhD named Associate Dean for Innovation

UTHealth School of Biomedical Informatics (SBMI) is proud to announce the start of a new associate dean role. Professor and Director of the Center for Computational Biomedicine, <u>Hua Xu. PhD</u>, will serve as SBMI's first associate dean for innovation.

While keeping his current titles, Xu's new role will entail leading all innovation, product development, and technology transfer efforts at SBMI. His initiatives will focus on business operations at SBMI, UTHealth, UTHealth affiliated clinical entities, and the broader community. Xu will also engage with key stakeholders to facilitate the successful development, evaluation, deployment, and maintenance of informatics products. In addition, he will develop mechanisms to support SBMI researchers in technology transfer of informatics applications.

"I look forward to representing SBMI within UTHealth and the broader community as the school engages in business development and commercialization activities," stated Xu. "In collaboration with other SBMI associate deans, I plan to help expand the school's catalog of informatics products for patient care, business operations, and clinical and translational research."



Xu joined SBMI in 2012 after spending four years serving as a faculty member in the Department of Biomedical informatics at Vanderbilt University. He has both a PhD and MPhil in Biomedical Informatics from Columbia University. He also has a MS in Computer Science from New Jersey Institute of Technology.

In 2018, Xu founded Melax Technologies, Inc. which develops tools for machine learning and natural language processing applications that unique expertise, along with more than 12 years of faculty experience, makes Xu the ideal candidate for this new role.







Osaid Alser, MD, MSc (Oxon) @OsaidalserMD · 23h

#Match2021 !Fully matched in Surgery

Congratulations to Osaid Alser who announced on Twitter that he was fully matched in surgery.

Congratulations, you have matched!

Because you are fully matched, you are not eligible to participate in the Supplemental Offer and Acceptance Program® (SOAP®), and you will not have access to the List of Unfilled Programs. Information on where you matched will be available in the Registration, Ranking, and Results® (R3®) system and sent by email on Friday, March 19, 2021, at 12:00 PM Eastern Time.

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Kristin @kricketchirps · 22h

Congrats Osaid!! This is wonderful news. You deserve it! The whole @OHDSI community is proud of you!

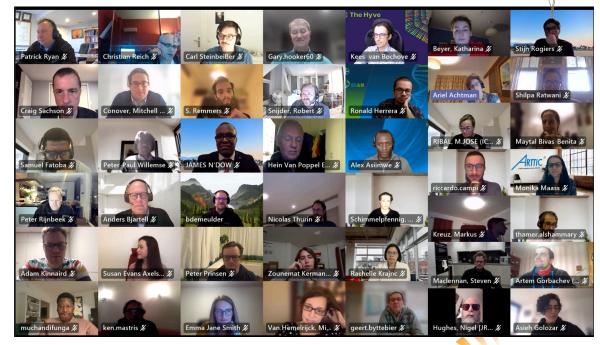
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The Pioneer/EHDEN/OHDSI prostate cancer study-a-thon was a terrific success last week, with more than 200 participants joining the important effort. We look forward to having representatives from this event present on the research/findings in a future community call!









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

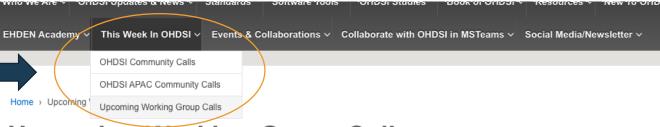


Date	Time (ET)	Meeting
Tuesday	1 pm	Common Data Model
Tuesday	2 pm	Women of OHDSI
Tuesday	3 pm	OMOP CDM Oncology – Outreach/Research Subgroup
Wednesday	10 am	OMOP CDM Oncology – Development Subgroup
Wednesday	2 pm	GIS-Geographic Information System
Thursday	8 am	Psychiatry
Thursday	12 pm	HADES
Thursday	1 pm	OMOP CDM Oncology – CDM/Vocabulary Subgroup
Friday	10 am	Clinical Trials
Friday	10 am	Electronic Health Record
Friday	10 am	UK Biobank
Tuesday	9 am	OMOP CDM Oncology – Genomic Subgroup



Upcoming Workgroup Calls





Upcoming Working Group Calls

Last updated March 15, 2021

OMOP CDM Oncology WG - Genomic Subgroup Meeting: Tuesday, March 16 at 9 am ET (Meeting Link)

Meetings are traditionally scheduled for every Tuesday at 9 am ET.

Common Data Model WG: Tuesday, March 16 at 1 pm ET: (Meeting Link)

Meetings are traditionally scheduled for the first and third Tuesdays of each month at 1 pm ET.

Women of OHDSI WG: Tuesday, March 16 at 2 pm ET (Meeting Link)

Meetings are traditionally scheduled for the third Tuesday of each month at 2 pm ET.

OMOP CDM Oncology WG - Outreach/Research Subgroup Meeting: Tuesday, March 16 at 3 pm ET: (Meeting Link)

Meetings are traditionally scheduled for the first and third Tuesday of each month at 3 pm ET.

OMOP CDM Oncology WG - Development Subgroup Meeting: Wednesday, March 17 at 10 am ET: (Meeting Link) Meetings are traditionally scheduled for every other Wednesday at 10 am ET.

Data Quality Dashboard Development WG: Wednesday, March 17 at 1 pm ET (Meeting Link)

Meetings are traditionally scheduled for the third Wednesday of each month at 1 pm ET.

GIS-Geographic Information System WG Meeting: Wednesday, March 17 at 2 pm ET: (Meeting Link)

Meetings are traditionally scheduled for every other Wednesday at 2 pm ET.

Psychiatry WG: Thursday, March 18 at 8 am ET: (Meeting Link)

Meetings are traditionally scheduled for every other Thursday at 8 am ET.





Get Access To Different Teams/WGs/Chapters





Welcome to OHDSI!

The Observational Health Data Sciences and Informatics (or OHDSI, pronounced "Odyssey") program is a multi-stakeholder, interdisciplinary collaborative to bring out the value of health data through large-scale analytics. All our solutions are open-source.

OHDSI has established an international network of researchers and observational health databases with a central coordinating center

2020 OHDSI Symposium

Our 2020 OHDSI Global Symposium brought together a global research community for 18 hours of open science, international collaboration and community fun. The day included research presentations from community members, panels that brought together leaders from major healthcare organizations, as well as network sessions, the annual collaborator showcase, and plenty more. Check it all out at the link below.

 Select the workgroups you want to join (you can refer to the WIKI for work group objectives www.ohdsi.org/web/wiki/doku.php?id=projects:overview) 				
ATLAS				
Clinical Trials				
Common data model				
Data Quality Dashboard Development				
Electronic Health Record (EHR) ETL				
Geographic Information System (GIS)	Psychiatry			
HADES Health Analytics Data-to-Evidence Suite	Surgery and Perioperative Medicine			
Latin America	UK Biobank			
Medical Devices	Women of OHDSI			
Natural Language Processing				
OHDSI APAC	4. Select the chapter(s) you want to join			
OHDSI APAC Steering Committee	Australia			
OHDSI Steering Committee	China			
Oncology	☐ Europe ☐ Japan			
Patient-Generated Health Data	☐ Korea			
Pharmacovigiliance Evidence Investigation	Singapore			
Phenotype Development and Evaluation	Taiwan			
Population-Level Effect Estimation / Patient-Level Prediction				
Population-Level Effect Estimation / Patient-Level Prediction	5. Select the studies you want to join			
	CHARYBDIS (Characterizing Health Associated Risks and Your Baseline Disease in SARS-Cov-2)			
	HERA-Health Equity Research Assessment			
	☐ PIONEER for Prostate Cancer			
	SCYLLA (SARS-Cov-2 Large-scale Longitudinal Analyses)			



New Workgroups?



Interest in an OHDSI Education Working Group?

General



nigehughes Nigel Hughes

15d

Hi. I'm the Project Lead for EHDEN alongside @Rijnbeek and leading also on the EHDEN Academy with our small but dedicated team.

I wondered if there would be interest in setting up an Education WG to explore, develop and oversee the educational aspects of promoting open science, the OMOP CDM/OHDSI framework, tools, methods and skills for the OHDSI and wider research community?

I think with the proposed OHDSI Institute in mind, as well as work in South Korea and Australia, we would have commonality of purpose and intent here to align on global education opportunities, cohesiveness of resources and materials development and alignment on overall goals?

Looking forward to responses, but especially your thoughts, @hripcsa, @Patrick_Ryan, @Rijnbeek, @Daniel Prieto, @Nicole Pratt, @Andrew, @Christian Reich, @rwpark, et al?























Call for Participation in New Working Group: Early-Stage Researchers

General



FAAIZAH ARSHAD

13h

Hi everyone,

I am collaborating with a few student researchers to lead a new working group called the 'Early-Stage Researchers Working Group'. The objectives are:

- to build a casual environment for younger community members to meet with each other and work together without feeling intimidated by their seniors
- · to create leadership experiences for junior researchers
- · to invite individuals to discuss and present research
- · to enable junior researchers to take part in OHDSI projects

The purpose of this post is to gauge for interest and to decide on a regular schedule. So, if you are interested, please let us know in the comments below- all junior researchers are welcome!!

As of now, we plan to have meetings monthly. Please answer this anonymous poll to indicate your availability.

docs.google.com 3



Hello! Thank you so much for your interest in this working group. We plan to have meetings monthly and would like to accommodate for as many people's schedules as possible. Please indicate your availability below.

We recognize that there won't be a perfect time for everybody, but we hope to accommodate for as many people's schedule as possible.

Please feel free to contact me at faaizaha23@g.ucla.edu for further questions.

Excited to collaborate

Regards,

Faaizah Arshad





EHDEN Open Call for SMEs

EHDEN opened its third open call for SMEs to apply for training and certification to convert health data from various forms to the OMOP common data model.

This call will run from March 15 through April 12.



Visit EHDEN.eu for more information





Where Are We Going?

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





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March 16 Community Call Topic Advances In Patient-Level Prediction





Best Practices for Prediction Using Observational Data

Jenna Reps, Associate Director, Janssen Research & Development



External Validation of Existing Dementia Prediction Models on Observational Health Data

Henrik John, Scientific Researcher, Erasmus University Medical Center



The Prediction Model Library

Ross Williams, PhD Student, Erasmus University Medical Center