# UMass Chan MEDICAL SCHOOL Population and Quantitative Health Sciences

# Weekly Newsletter March 3-7, 2025

## **PQHS NEWS**

**Kellie Armstrong** resigned from her role as Executive Assistant effective today, March 3rd. A search for her replacement is underway. In the meantime, please direct any Executive Office requests to Sarah Yeboah.

#### WELCOME



A warm welcome to Julia O'Rourke, PhD who joined the Health Informatics and Implementation Science Division as an affiliate Assistant Professor. Dr. O'Rourke, principal data scientist at TriNetX, has earned multiple advanced degrees (including a PhD in biomedical engineering and master's degrees in computer science and population health) and completed an NIH postdoctoral fellowship in biomedical informatics at Massachusetts General Hospital. She has served as a faculty member at Harvard Medical School, a principal investigator at the Lurie Center for Autism, and has authored and co-authored over a dozen publications on various

topics. She is also pursuing an advanced degree in Artificial Intelligence at Northeastern University. During her fiveyear tenure at TriNetX, Dr. O'Rourke has held roles on the engineering, data science, and research teams, most recently focusing on leading and co-leading client research projects and publishing her research utilizing TriNetX's real-world data. Her research interests focus on using machine learning with real-world data to address various research questions.



A warm welcome to Jinah Sim who joined the Health Informatics and Implementation Science Division as an adjunct Assistant Professor. Dr. Sim's primary appointment is in the Department of Artificial Intelligence Convergence and an adjunct Assistant Professor in the Department of Psychiatry at Hallym University, Republic of Korea. Dr. Sim specializes in measuring and analyzing patient-reported outcomes among cancer patients and survivors using advanced technologies such as natural language processing (NLP), machine learning, and digital tools. She also has extensive experience in working with medical big data, particularly by analyzing

secondary national-level claims data.

### ANNOUNCEMENTS

## Research Methods Meeting Wednesday, March 5th, 10:00-11:00 AM

Title: Multilevel modeling for quantitative intersectionality research: Introducing the MAIHDA approach



**Presenter**: Dr. Ariel Beccia is an Instructor in the Division of Adolescent and Young Adult Medicine at Boston Children's Hospital, the Department of Pediatrics at Harvard Medical School, and the Department of Epidemiology at the Harvard T.H. Chan School of Public Health. **Description**: Intersectionality theory, which posits that social categorizations (e.g., those based on race, gender, and class) are interconnected and create overlapping systems of discrimination or disadvantage, has become increasingly influential in population health research. However, translating the core tenets of intersectionality into quantitative analyses presents significant methodological challenges. This presentation will introduce Multilevel

Analysis of Individual Heterogeneity and Discriminatory Accuracy (MAIHDA) as a novel approach for quantitative intersectionality research that addresses and overcomes many of these challenges. I will start with a brief overview of intersectionality theory and its application in population health research, highlighting the limitations of traditional statistical methods in capturing the complexity of intersecting social positions. I will then introduce the MAIHDA framework, explaining its core components and how it addresses these limitations. A case example will illustrate the application of MAIHDA, demonstrating how it can reveal patterns of health inequities that might be obscured by conventional approaches. Finally, we will review recent extensions of the MAIHDA methodology, including the

incorporation of survey weights, applications to longitudinal data, and the inclusion of exposure variables, expanding its potential for investigating the complex interplay of social factors and health outcomes. Throughout the presentation, resources and opportunities for discussion will be provided to promote both the understanding and critical evaluation of MAIHDA as a tool for quantitative intersectionality research.

**Bio**: Dr. Ariel Beccia is an Instructor in the Division of Adolescent and Young Adult Medicine at Boston Children's Hospital, the Department of Pediatrics at Harvard Medical School, and the Department of Epidemiology at the Harvard T.H. Chan School of Public Health. Her research focuses on identifying the structural drivers of inequities in mental health, especially eating disorder-related outcomes; she also has an interest in developing and applying methods to better incorporate critical social theories into quantitative population health analyses. She earned her PhD in epidemiology from the Clinical and Population Health Research program at the University of Massachusetts Chan Medical School.

To join the meeting click <u>here</u>.

## NHLBI-funded Transdisciplinary Training in Cardiovascular Research Program (T32)



Directed by Catarina Kiefe, MD, PhD (PQHS) and Kevin Donahue, MD (Cardiovascular Medicine), the **NHLBI-funded Transdisciplinary Training in Cardiovascular Research Program (T32)** is currently accepting applications for <u>post-doctoral trainees</u>. Please visit <u>PQHS - Transdisciplinary Training in Cardiovascular Research T32 Training Program</u> for more information on this opportunity." Questions? Contact Rebecca Gigliello (Rebecca.gigliello@umassmed.edu)



WΡ<sup>3</sup>

WOMEN'S PROFESSIONAL PODS PROGRAM

**Empower Your Career: Join the Women's Professional Pods Program!** Increase your professional network and access career advancing skills. The Women's Professional Pods Program (WP3) was developed by Baystate emergency medicine attending Dr Jeannette Wolfe through her UMass Chan Medical School Joy McCann Professorship to help professionals in medicine and science advance their careers. The program is intentionally designed to be high impact without a significant time commitment.

Participants will be placed into a small longitudinal "pod" based on their medical campus (Baystate, Worcester or Lahey), scheduling preferences, career point, and specialty. Importantly, each pod will be interdisciplinary and intergenerational to broaden pod members' networks and opportunities and to foster organic peer coaching and mentoring. Pods will meet three times a year, and each pod meeting will include an action-oriented career development activity.

WP3 is geared towards women and individuals with minoritized gender identities who are faculty physicians, advanced practitioners, or hold an academic appointed title. All interested individuals are welcome to apply regardless of gender or gender identity.

Invest in yourself and your community- click <u>here</u> to join a pod! Deadline for initial pod placement is March 15th.

#### UMASS CHAN REMINDER

#### Holiday Calendar for UMass Chan Medical School

Remaining Holiday Schedule for 2025:

- Patriots' Day Monday, April 21<sup>st</sup>
- Memorial Day Monday, May 26<sup>th</sup>
- Juneteenth National Independence Day Thursday, June
- Independence Day Friday, July 4<sup>th</sup>
- Labor Day Monday, September 1<sup>st</sup>
- Indigenous Peoples' Day Monday, October 13<sup>th</sup>
- Veterans Day Tuesday, November 11<sup>th</sup>
- Thanksgiving Day Thursday, November 27th
- Day After Thanksgiving Friday, November 28th
- Christmas Eve Wednesday, December 24<sup>th</sup>



• Christmas Day – Thursday, December 25<sup>th</sup>

PQHS Weekly will be sent to all members of PQHS on Monday mornings. The intent is to provide a snapshot of what is going on that week in PQHS and to share our faculty and staff activities with the department. We depend on you to provide the items we need to share. Please send suggestions of events, faculty invited seminars & talks, honors, student thesis presentations, and news – new babies born! – to Judi (judi.saber@umassmed.edu) & Sarah (sarah.yeboah@umassmed.edu) by Friday each week.