

Weekly Newsletter May 30 – June 2, 2023

## PQHS NEWS

### UPCOMING EVENT

Tuesday, May 30 – 9:00 – 10:00 AM

**Research Meeting** – **Presenter:** Chan Zhou, PhD, Assistant Professor, Biostatistics & Health Services Research, PQHS, UMass Chan Medical School

**Title:** BAMBI: combining Bio-statistical and Artificial-intelligence Methods for improving identification of coding and noncoding genes as putative Biomarkers

**Brief Description:** Early and accurate disease diagnosis is crucial for effective treatment management and improving patient outcomes. However, accurately detecting early signs of certain diseases remains a challenge. Existing artificial-intelligence methods for identifying gene expression biomarkers have several limitations, including poor performance on independent datasets, inability to directly process omics data, and difficulty identifying noncoding RNA genes as biomarkers, which are known to be highly disease-specific. Additionally, these methods may not provide sufficient biological interpretation of their results, and the panel of biomarkers they identify may not be suitable for clinical application. To address these limitations, we have developed a new computational method called *BAMBI*, which integrates multiple artificial-intelligence algorithms and statistical approaches to identify putative coding and noncoding genes as biomarkers for disease diagnosis and progression. *BAMBI* outperforms existing methods in terms of stability of results, number of biomarkers identified, and prediction accuracy. Additionally, the results of *BAMBI* demonstrate significant biological interpretability. We have implemented *BAMBI* into a user-friendly software tool for the research community. In summary, our method provides a more reliable approach to disease diagnosis and progression by identifying coding and noncoding genes as biosignature markers that can distinguish patients with a specific disease from healthy individuals or stratify patients by their disease severity. (*The project is ongoing, and the manuscript is under preparation.*)

Click [here](#) to join or call 646 876 9923 Meeting ID: 851 294 7151 **password: smm2020**

### PQHS HOT TOPICS



PQHS Diversity Action Committee is hosting a one-hour workshop ***“Did that just happen? How to interrupt and safely discuss Racism”*** that will define what racism looks like in everyday life and some possible ways to respond and/or be an ally to another who has experienced a racist incident. There will be an introduction that defines racism and examples of racist behavior for discussion. Workshop attendees will be expected to participate in the discussions of the best ways to handle racism. Participants are also invited to share examples of racist behavior and how it was handled.

One workshop that will be done 3 different dates and times, sign up is required:

- Tuesday, June 6, 2023, 2:00-3:00PM
- Wednesday, June 7, 2023, 2:00-3:00PM
- Tuesday, June 13, 2023, 2:00-3:00PM

Click [here](#) to sign up to attend the Workshop.

### PQHS SHOUT OUT



**Congratulations** to Seun Osundolire who successfully defended his CPHR PhD Dissertation entitled ***“Descriptive Epidemiology of Chronic Obstructive Pulmonary Disease In US Nursing Home Residents with Heart Failure”***. Seun is mentored by [Kate Lapane, Ph.D.](#)



**Wednesday, May 31, 2023, 1:00PM**

MSCI Thesis Defense "*Neighborhood-level social vulnerability and emergency department utilization in adults with type 2 diabetes: a cross-sectional study?*" Presented by: Jacqueline Furbacher, M.D. who is mentored by [Stephenie Lemon, PhD](#).  
Click [here](#) to join meeting.

#### ANNOUNCEMENTS

**Fundamentals of Clinical Research – Mini Course ~ Continuing Wednesday, May 31<sup>st</sup> ~**

**Presented by:** Bruce Barton, PhD | Robert Goldberg, PhD | Heather Strom Tessier, MS



**Mondays and Wednesdays in May-June 2023**

This lecture series is designed for students in training, residents, post-doctoral fellows, and junior faculty who are interested in learning about the most commonly employed study designs used in clinical and public health research and about the IRB review process.

***Observational Studies Used in Clinical Research***

Rob Goldberg – Wednesday, May 31st 8:00-9:30 a.m. via [zoom](#)

***Randomized Clinical Trials: Introduction and Theory***

Bruce Barton – Monday, June 5th 8:00-9:30 a.m. via [zoom](#)

***Randomized Clinical Trials: Implementation and Conduct***

Bruce Barton – Wednesday, June 7th 8:00-9:30 a.m. via [zoom](#)

***Randomized Clinical Trials: Analysis and Publication***

Bruce Barton – Monday, June 12th 8:00-9:30 a.m. via [zoom](#)

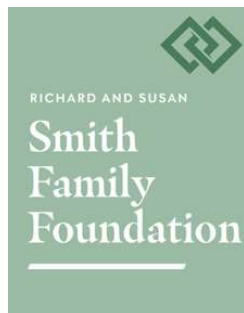


**Friday, June 2, 2023, 3:00-4:30PM in AS9-2072**

**CPHR Dissertation Proposal Presentation: "Factors Contributing to Psychiatric Medication Discontinuation During Pregnancy: A Preconception Perspective"** Presented by Cleevanne Julce, BS,

MPH; Mentor: [Nancy Byatt, DO, MS, MBA](#)

Click [here](#) to join. **Password: 647624**



Heath Resources in Action has recently launched the [2024 Smith Family Awards Program for Excellence in Biomedical Research](#) supported by the Richard and Susan Smith Family Foundation.

**Preliminary Proposal Deadline:** Tuesday, June 20, 2023

**Award Amount:** \$400,000 over three years

**Eligibility**

- Basic biomedical researchers
- Based at a non-profit research institution in Massachusetts or at Brown University or Yale University
- Appointment to Assistant Professor between 10/1/20 – 4/1/24, and not yet tenured
- Receive less than \$350,000 per year in combined federal and non-federal funding in direct costs



Thursday, June 8, 2023, 4:00-5:00PM in S2-351/352

Sixteenth Annual Edward Smith Lecture: *“Nothing New Under the Sun: The Struggle for Health Equity”*

Presented by Jinel A. Scott, MD, MBA, CPHQ

Click [here](#) to join. Password: Radiology

#### MASS CHAN REMINDER



UMass Chan Medical School encourages employees to “Take a Break” – Use Your Excess Vacation Leave by June 17<sup>th</sup>. As we get closer to fiscal year end, we want to remind you of the [UMass Chan Vacation Policy](#) and maximum accruals so you can plan accordingly.

As of the last full pay period of the fiscal year, the maximum number of vacation hours employees may carry over into the next fiscal year is 240. During the fiscal year, employees are allowed to accrue hours over 240; hours over this accrual limit are automatically re-set in the payroll system to the accrual maximum. **This year, the relevant pay period ends June 17, 2023. Accordingly, we encourage**

**you to use any vacation balances over 240 that exceed the 240-hour maximum before that date.**



UMass Chan Medical School’s [Office of Communications](#) is initiating regularly scheduled opportunities where faculty, staff, and students can have a professional headshot taken. Photos are taken every other Wednesday from 9 AM to 3 PM on the fifth floor of the Sherman Center by the elevators. Each session caps at 50 people. Anyone at UMass Chan can sign up using this document found on the SharePoint site. **See updated link for new options:** [Photo Sign-Ups \(office365.com\)](#)

*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 Kellie ([kellie.armstrong@umassmed.edu](mailto:kellie.armstrong@umassmed.edu)) & Sarah ([sarah.yeboah@umassmed.edu](mailto:sarah.yeboah@umassmed.edu)) by Friday each week.*