

Emergency Medicine Research News January 2020

Conducting innovative clinical and translational emergency care research to advance the health of the people of Wisconsin and beyond.

Top Stories

FDA Approval for vivoDX MRSA

Since its inception, our EDRC program has been a cutting edge resource available to researchers and industry sponsors alike. In one of our first industry studies, our EDRC team enrolled participants for a protocol that evaluated the performance of a new diagnostic test for Roche Molecular Systems Inc. In December 2019, the FDA authorized marketing of this new test, **the Cobas vivoDx MRSA diagnostic test**, that uses novel technology to detect Methicillin-resistant Staphylococcus aureus (MRSA) bacterial colonization, a widespread cause of hospital-acquired infections.

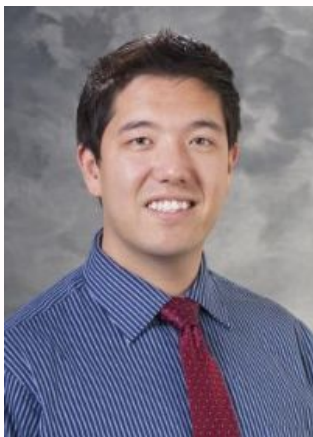
MRSA has been defined as a serious antimicrobial-resistant threat by the CDC. The Cobas vivoDx MRSA diagnostic test may allow health care professionals to evaluate patients for colonization with MRSA bacteria more quickly than traditional culture-based techniques, aiding in the **prevention and control of MRSA infections in healthcare settings.**

We are proud of our research team, and their efforts to address antimicrobial resistance.

[To read the full news release, please see the link below!](#)

vivoDX MRSA, FDA News Release

Dr. Michael Repplinger Awarded 2020 WMS Foundation Young Physician Leadership Award



Please help us congratulate our own **Michael Repplinger MD PhD**, for winning the **Wisconsin Medical Society Foundation's 2020 Kenneth M. Viste Jr., MD Young Physician Leadership Award!** He was nominated by the WACEP Board and a number of emergency physicians for his leadership and professionalism. For this award, Mike competed against physicians of all specialties in Wisconsin, not just emergency physicians. Very impressive, Mike!

Collin Engstrom Awarded PhD in Computer Science

A major congrats go out to **Collin Engstrom PhD**, who successfully defended his doctoral dissertation in Computer Science in December 2019. In addition, Collin, with **Brian Patterson MD MPH** as his mentor, was awarded a **2-year postdoctoral fellowship** in the Computation and Informatics in Biology and Medicine program here at UW. Collin and Brian will continue to work together to use informatics approaches to identify at-risk older adults and use clinical decision support to lead to interventions. Way to go, Dr. Engstrom!



WACEP 2020 Spring Symposium & 28th Annual EM Research Forum - Join Us!

WACEP 2020 is just around the corner! The forum will be held on April 16, 2020 in Middleton, WI. **The abstract deadline is 5:00pm on Friday, February 14, 2020.** Abstracts must be submitted via email as a Microsoft Word document to demresearch@medicine.wisc.edu. As always, registration for the Forum only is free. [For more information regarding registration, abstract submission guidelines, and agenda, please see the link below!](#)

[2020 Research Forum](#)

Kudos

-Kudos to **Michael Pulia MD MS**, who was recently admitted into the **MATRIX (Mentoring to Achieve Research Independence) program sponsored by SMPH!** MATRIX 2020 is a mentoring program designed to support and increase the success rate of SMPH faculty who are applying for their first R01 or equivalent grant. Congrats and good luck on your first R01 grant submission, Mike!

Upcoming Deadlines (Conferences and Awards)

Conference Deadlines:

[Wisconsin ADRC \(Alzheimer's Disease and Related Disorders Research Day 2020\)](#): Poster submission due date - February 3, 2020

Award Submission Deadlines (National and Institutional):

[CORD 2020 \(Academy Award, Academy Legacy Mentor Award, Longevity Award\)](#) - January 6, 2020

[AAEM 2020 Awards](#) - January 12, 2020

[Lasker Foundation Awards](#) - February 3, 2020

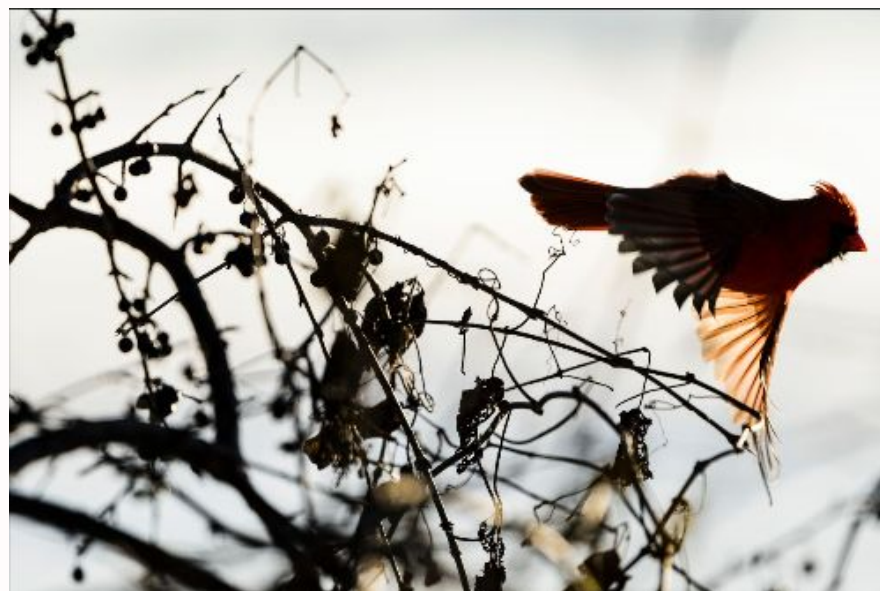
[UW-Madison University Staff Awards](#) - February 28, 2020

Upcoming/Recent Presentations (DEM authors listed)

[National Association of EMS Physicians \(NAEMSP\) annual meeting, January 6-11, 2020](#)

M. Mancera, M. Lohmeier, MN. Shah, M. Gussick, and L. Scratish:

"Paramedic Perception and Preferences Regarding Quality Assurance" (poster)



Upcoming Events

National Blood Donor Month 🇺🇸

NAEMSP 2020 Conference

January 6-11, 2020

San Diego, CA

DEM Global Health Social

January 15, 2020

VIP Grand Rounds

Topics in Clinical Ultrasound

January 16, 2020

10:00a.m. - 10:50a.m.

Erica Peethumnongsin, MD, PhD

DEM Journal Club & Research Lecture (Ultrasound)

January 16, 2020

11:00a.m. - 1:00p.m.

Brian Patterson, MD, MPH and Sara Damewood, MD

IMSH 2020 Conference

January 18-22, 2020

San Diego, CA

Martin Luther King Jr. Day

January 20, 2020

Rank Party

January 23, 2020



Recent Publications

Manuscripts:

Jewell C, Tillman D, Kraut AS, Hess J, Westergaard MC, Schnapp BH. Post-Interview Thank-You Communications Influence Both Applicant and Residency Program Rank Lists in Emergency Medicine. [WestJEM. December 2019.](#)

Gilmore-Bykovskiy AL,...**Shah MN**, Zuelsdorff M. Recruitment and retention of underrepresented populations in Alzheimer's disease research: A systematic review. [Alzheimer's & Dementia: Translational Research & Clinical Interventions. 2019; 5: 751-770.](#)

Schnapp BH, Fleming E, Kraut A, Westergaard M, Batt RJ, Patterson BW. Maggots, Mucous and Monkey Meat: Does Disgust Sensitivity Affect Case Mix Seen During Residency? [WestJEM. December 2019.](#)

Schnapp BH, Ulrich K, Hess J, Kraut AS, Tillman D, Westergaard M. Misunderstanding the Match: Do Students Create Rank Lists Based on True Preferences? [WestJEM. December 2019.](#)

Moore AB,...**Shah MN**, Sun BC. Frequency of Abnormal and Critical Lab Results in Older Patients Presenting to the Emergency Department with Syncope. [Academic Emergency Medicine. December 2019.](#)

Schnapp BH. Diving In: Experiential Learning about Research. [WestJEM. December 2019.](#)

Shappell E, **Schnapp BH.** The F Word: How "Fit" Threatens the Validity of Resident Recruitment. [Journal of Graduate Medical Education. 2019; 11\(6\): 635-636.](#)

Norman RS, **Shah MN**, Turkstra LS. Reaction time and cognitive-linguistic performance in adults with mild traumatic brain injury. [Brain Injury. 2019; 33\(9\): 1173-1183.](#)

Studies Currently Enrolling in the ED

All of Us

The purpose of this study is to build a national database that will be available to researchers to further precision medicine. Enrollers will approach patients to participate, help them go through the portal to complete the baseline surveys, and schedule follow-up appointments with patients for bio-specimen collection. We are hoping to enroll family members and guests in this study as well. For questions, see Dr. Manish Shah.

Caregiver Uncertainty

This pilot study aims to assess the feasibility and acceptability of enrolling and surveying patients with memory changes and their caregivers in the ED. Eventually, these pilot data will be submitted for a grant to expand the study. If funded, the study would aim to understand how these patients and their caregivers make decisions about coming to the ED. Hopefully, this will help shed some light on resources that would be useful for these patients/caregivers to receive support in the community rather than seeking care in the ED. Enrollers will perform all study activities for this study, as it is a survey-based study. For questions, see Dr. Manish Shah.

Clinical Evaluation of the Omron Wheeze Detector Prototype and Algorithm

The purpose of this study is to test a wheeze detector prototype created by Omron Healthcare in pediatric patients with a history of asthma or suspected of having asthmatic symptoms. This is a new protocol but is a continuation of the previous Omron study that is more tailored to the target patient population. Enrollers will take a 30-second recording of eligible patients breathing to capture lung sounds of interest. For questions, see Dr. Manish Shah or Dr. Michael Kim.

Engineering Safe Care Journeys for Vulnerable Older Adults (Part 1)

As a part of the AHRQ grant titled "Engineering Safe Care Journeys for Vulnerable Older Adults", EDRCs will start administering surveys to older adult fall patients about their perceptions of health care. EDRCs will administer two short surveys, one in the middle of the patient's stay and one just before the patient leaves the ED. These data will serve as baseline data to evaluate a tool that will be designed to improve transitions from the ED to the hospital, the patient's home, and skilled nursing facilities. If you have any questions or concerns about the project, please contact the study PI, Dr. Pascale Carayon (pcarayon@wisc.edu) or Drs. Shah or Patterson.

Evaluating the Utility of Thermal Imaging in Diagnosing Cellulitis for Lower Extremity Complaints in the Emergency Department

The main purpose of the study is to determine the temperature gradient between affected and unaffected legs in patients with cellulitis and compare the difference in temperature between cases of cellulitis and pseudocellulitis. A secondary purpose is to assess the impact of thermal imaging data on diagnostic assessments of potential cellulitis cases when added to standard techniques. For questions, see Dr. Mike Pulia.

Lumos FebriDx

The purpose of this study is to test a device to identify the infectious etiology (virus vs. bacteria) of patients presenting with acute respiratory symptoms. This device, called FebriDx created by Lumos Diagnostics, uses a finger stick blood sample to measure the levels of various pathogens. The hope is for this device to be widely available for patients to help guide their decisions to seek

care for respiratory illnesses. In addition to the finger stick, the EDRCs will be collecting nose and throat swabs as well as blood samples to send for confirmatory testing. This study is expecting to enroll 1-2 patients per week during daytime hours. For questions, see Dr. Michael Ward or Dr. Michael Pulia.



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