

# Emergency Medicine Research Times

Greetings,

This Newsletter endeavor has been a dream to promote EM Research efforts and to promote our goal to increase engagement of our residents, fellow faculty, as well as, our local partners. Our formula to promote research engagement includes: 1) *Reducing barriers to play* (e.g., co-hosting our Intern Research Conference with our SAMMC partners); 2) *Getting more players on the field* (e.g., collaborating with local and international partners to broaden our impact beyond South Texas); 3) *Just have fun* (e.g., cultivating an infectious culture of intellectual curiosity that permeates our team and our partners). Some topics contained in this, our inaugural issue of EMRT, include:

1. Powder Study
2. Who's who in Research
3. EM Milestones
4. Spotlight: Inaugural Intern Research Conference 2019
5. IRB, Grants, & Manuscripts
6. IRB Updates
7. Toxicology Corner
8. Global Health

There are many more ideas to come for future editions. We want to share the excitement and hope that you will be inspired by this new venue. We celebrate our victories and successes, big and small. When one of us succeeds, we all succeed.

Many thanks for your help with this project,

-Bill Fernandez

William G. Fernandez, MD, MPH  
Assistant Research Director  
Department of Emergency Medicine  
Long School of Medicine  
UT Health - San Antonio

## Airway Management



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### RESEARCH NETWORK

**Robert De Lorenzo, MD**  
Research Director

**William Fernandez, MD**  
Asst. Research Director  
Newsletter Editor-in-Chief

**Yolanda Flores**  
Admin. Asst. Assoc.  
Publisher

**Stephanie Martinez**  
Grants & Contracts

**Joe Peters**  
Sr. Research Coordinator



### UPCOMING EVENTS

Research Concierge -  
Office of Clinical  
Research (FY 19-20)

|           |            |            |
|-----------|------------|------------|
| Tuesday   | 11/5/2019  | 1pm - 4pm  |
| Wednesday | 11/20/2019 | 9am - 12pm |
| Tuesday   | 12/3/2019  | 1pm - 4pm  |
| Wednesday | 12/4/2019  | 9am - 12pm |
| Wednesday | 12/18/2019 | 9am - 2pm  |
| Tuesday   | 1/7/2020   | 1pm - 4pm  |
| Wednesday | 1/15/2020  | 9am - 12pm |
| Wednesday | 1/29/2020  | 9am - 12pm |

Main Campus  
(Long Campus)  
Library, 2nd Floor  
Computer Classroom,  
Room 2.011

## THE PULSE - IRB NEWS YOU CAN USE

### INFORMED CONSENT WITH VULNERABLE POPULATIONS

During the September 2019 IRB OCR forum Meyad Baghezza reviewed the informed consent process among vulnerable populations.

Certain persons may be considered vulnerable because they might not be able to provide voluntary informed consent because of limitations in their decision making abilities or situational circumstances.

Vulnerable Populations include federally regulated groups such as pregnant women/fetus prisoners, and children. Other groups that are vulnerable are the cognitively impaired, acutely ill, those who are economically or educationally disadvantaged, students, and employees. These groups need additional consideration when being considered as part of a study.

As you evaluate the subject ability to provide consent you must be prepared for possible changes to the individual's ability to provide informed consent. Keeping the individual engaged, their family or legally authorized representative is critical. Part of the consent process should include details about the procedure, especially if there is more than minimal risk, any study limitations, and required commitment from the subject.

When applying for study approval to the IRB, ensure that it is the correct application and that the information you provide addresses vulnerable groups, the consent process and any tools you will use to assist in the consent process.

*The next IRB/OCR forum will be November 21, 2019 3PM in Med 4.409.L*

### GLOBAL HEALTH

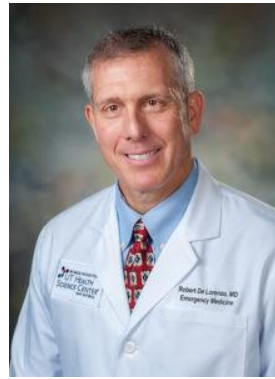
Department of Emergency Medicine Global Health Division

The principal mission of the Department of Emergency Medicine Division of Global Health is to engage in mutually beneficial healthcare partnerships abroad that promote leadership, scholarship, and service to the underserved populations of San Antonio and South Texas. With a focus on emergency medicine education, training, and systems development, the division of global health provides opportunities for faculty, fellows, residents, and medical students to grow as clinicians and educators while bolstering the health of populations internationally and locally.

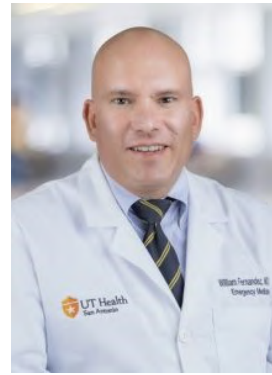
Currently, our faculty and trainees engage in mutually beneficial partnerships through Emergency Medicine education and training in Nepal, Vietnam, Peru, Zambia, and Uganda. Of paramount importance, the knowledge and proficiencies that develop from international work directly translate to the population of San Antonio and the surrounding region. Our faculty and fellows regularly volunteer to staff the weekly San Antonio Refugee Clinic, where Dr. Wayman serves as the Medical Director.

The Emergency Medicine Division of Global Health currently supports two Global Health Fellows and two Combined Ultrasound Global Health fellows. Fellows gain experience in a broad range of clinical, research, teaching, and administrative skills in emergency medicine training, humanitarian aid and disaster response, cross-cultural collaboration, tropical medicine, refugee health, and international public health. With the Combined Ultrasound Global Health Fellowship, trainees develop additional expertise in point of care ultrasound and its application in resource-limited settings. Both fellowships emphasize education to underserved areas, provision of clinical care in resource limited environments, and logistical development for sustainable education globally.

## THE RESEARCH TEAM



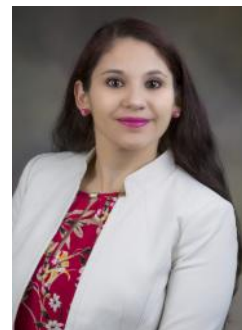
Robert De Lorenzo, MD



William Fernandez, MD



Yolanda Flores



Stephanie Martinez



Joe Peters



Genny Krackau



Elizabeth Costilla

### Meet Your Research Support Team

These dedicated individuals are here to support Faculty, Fellows, Residents, Students and others with an interest in launching a research project. Bring your ideas or proposals to our attention and experience the best support and guidance in the institution!

All ideas welcome, from early thoughts to fully mature proposals. No research experience is necessary to take advantage of your Research Support Team!

—Robert De Lorenzo, MD

### RESEARCH

**Dr. Robert De Lorenzo**  
Research Director

**Dr. William Fernandez**  
Asst. Research Director

**Yolanda Flores**  
Administrative Assistant

**Stephanie Martinez**  
Grants and Contracts  
Specialist

**Joe Peters**  
Senior Research  
Coordinator

**Genny Krackau**  
Research Area Specialist

**Elizabeth Costilla**  
Research Area Specialist

### GOT RESEARCH IDEAS?

Let us help you take those grant ideas and put them into motion. We are here to assist with everything from technical assistance, protocol development, navigating the IRB, and assisting with subject enrollment.

### For Grant Consultation & Support, Contact:

Stephanie Martinez  
(martinezs13@uthscsa.edu)  
210-450-8566

### For IRB applications & Protocol Development, Contact:

Joe Peters  
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### AIEMS CONFERENCE HIGHLIGHTS

Emergency Medicine's first ever AIEMS Conference was a smashing success.

We wish to recognize all the hard work of the Faculty and Staff who's efforts made this happen.

Robert De Lorenzo, M.D.

Brad Goettl, DNP

Katie Braseth, PA-C

Tatiana Emanuel, PA-C

Debbie Fowler

Louise Bankey

Dolores Chavarria

Yolanda Flores

### AIEMS CONFERENCE JUNE 2020

## ALAMO INTERPROFESSIONAL EMERGENCY MEDICINE

In June 2019, UT Health San Antonio Department of Emergency Medicine successfully hosted the inaugural Alamo Interprofessional Emergency Medicine Symposium (AIEMS). The symposium was well attended, providing continuing education to nearly 200 health care professionals. In addition to continuing education, AIEMS provided several opportunities for professional and faculty development. These opportunities include course direction, conference planning, curriculum development, podium presentations, and poster presentations.

Thank you to those who attended and helped plan AIEMS 2019. Next year, the Department of Emergency Medicine is partnering with STRAC to bring an Emergency Medicine Track to the 2020 Regional Emergency Healthcare Systems Conference. The 2020 Regional Emergency Healthcare Systems Conference will be held June 15-17th at the Hyatt Hill Country Resort.

—Brad Goettl, DNP

### Medicine Education Fellowship

The Medical Education Fellowship is a new fellowship developed for the Department of Emergency Medicine here at UT Health. Involved in tasks both with residency leadership at the administrative level, and on a more granular level with medical student education, my current tasks involve developing a more interactive culture during grand rounds with semi-regular discussion of interesting case. I'm currently developing a curriculum to provide a more *formalized* education on documentation practices to the residents. In addition, I'm studying theories of adult learning to find other ways to enhance our already stellar residency education from the perspectives of curriculum design, conference education, and on shift learning experience.

—Jacob Feldman, MD

### RESIDENT INVOLVEMENT IN PATIENT EDUCATION

As an emergency medicine interested in education, I began working on a series of two patient pages for the *Journal of the American Medical Association (JAMA)*. The patient pages are articles aimed at a non-medical audience that explain different concepts in medicine, with topics ranging from medical screenings to surgeries to various medical conditions. The patient page that I recently wrote was about schizophrenia. This patient page included basic information on the symptoms, treatment options, and prognosis. Emergency medicine physicians play an important role in often being the first provider to inform a patient about his or her medical condition, so familiarity with explaining medical concepts to a non-medical audience is an important skill for emergency physicians.

—Cara Borelli, DO



## Sontag in Washington, DC

As the only specialty that cares for every patient, day or night, regardless of their ability to pay, emergency physicians have unique insights into the challenges and disparities faced by our diverse patient population. Armed with those experiences, I spent my senior elective month in Washington D.C. as a Congressional Health Policy Fellow through a program sponsored by the Emergency Medicine Residents' Association. As a staffer in the office of Rep. Raul Ruiz, an emergency physician elected to Congress from California, I focused on applied research by crafting public policy based on strong scientific underpinnings. My research and policy proposals ranged from developing a policy to decrease toxicity from organophosphate pesticide exposure in migrant farmworker communities to finding solutions for political hot-button issues like firearm violence and vaping. My work culminated with the writing of a bill to be introduced during this Congressional session, which is as close as you can get to getting published on Capitol Hill. If you share my passion for policy research and application, contact me, and I will help you take the next steps to find solutions for our patients and our profession.

—RJ Sontag, MD  
President-Elect, EMRA



RJ Sontag and Raul Ruiz  
Washington, DC

## TOXICOLOGY CORNER

Shawn Varney, MD, FACEP

The South Texas Poison Center Specialists in Poison Information & faculty presented seven posters at the recent North American Congress of Clinical Toxicology meeting in Nashville, TN. Here are the take home points:

1. Isoxazolines are an FDA-approved class of pesticides that treat/prevent flea and tick infestations in animals by inhibiting insect GABA-gated chloride channels and cause death from excessive CNS stimulation. They cause little toxicity to mammals due to the lower sensitivity of mammalian GABA receptors. Human exposures were uncommon, generally involved young children, and resulted in minor gastrointestinal effects.
2. Phenibut, a structural analog of GABA, is sold online as an anti-anxiety supplement, a nootropic or "smart drug," sleep aid, can be used recreationally. Awareness of the 10-fold (2-21) annual increase in reported phenibut exposures since 2007 may help manage patients in a healthcare facility.
3. Stand-alone Emergency Depts. are not efficient in managing toxic patients due to limitations in staffing, antidotes, and laboratory studies. Of 501 patients in a 10-month period, 157 (31.3%) were treated and discharged; 203 (40.5%) were transferred to a tertiary hospital for a higher level of care; 98 (19.6%) were admitted to a mental health institution; and 43 (8.6%) left against medical advice.
4. Cannabidiol exposures reported to the Texas Poison Center Network increased 6-fold (6.38) over the last year concomitant with regulatory changes and clinical research.
5. The majority of *Micrurus tener* (TX Coral Snake) bites in TX were reported from counties where they are known to live, but several were also reported from counties not previously known to have a coral snake population.
6. Most human exposures on *Cycas revoluta* (Sago Palm) originated from Ctrl. and SE TX, which may help to target education and prevention activities.
7. Insect repellent (non-DEET) band exposures reported to the Texas Poison Center Network have more than doubled over the last 4 years with mostly minimal clinical effects.

## INTERN RESEARCH COURSE

December 13,16,17 & 20  
January 6 & 7

## RESEARCH

Academic medicine has been described as a "three legged stool" with one leg each for teaching, patient care, and research. All are equally important. This newsletter and subsequent communications seek to engage DEM employees and to implore you to pursue collaboration with others in the industry. Faculty seeking to broaden their knowledge in research can do well to seek out the many resources that DEM and the University has to offer. Our objective is to help you by listening to your research interests and shepherd you in a direction that propels your research goals. I assure you that the world of research has no limits.

Go out there and discover!

Louis Burton, MHSM, FACHE  
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## Research Article Submissions

If you would like your paper/presentation highlighted in the next edition of the **Emergency Medicine Research Times**,

Please contact:

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OR

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## CURRENT RESEARCH PROJECTS

- ◆ POWDER
- ◆ Simetri JAARS
- ◆ SAMF Airway
- ◆ DHP 6.7 Airway

## RECENT NATIONAL RESEARCH PRESENTATIONS

Schauer S, April M, Naylor J, Uhaa N, De Lorenzo RA: *An Assessment of US Army Combat Medic Airway Training and Airway Devices Carried Into Combat*. World Airway Management Meeting (WAMM). Amsterdam, Netherlands, November 13-19, 2019.

Bascos GN, Berard D, Restrepo D, Hood RL, De Lorenzo RA: *Novel Endotracheal Tube Design Utilizing Novel Architected Materials*. Biomedical Engineering Society (BMES) Annual Meeting, Philadelphia, PA, October 16-19, 2019 –accepted #4688 July 31, 2019.

De Lorenzo RA, Wenke J, Schauer S, April M, Agarwal A, Zelle B, Wheeler A: *Placement of Antibiotic Powder In Open Fracture Wounds In The Emergency Room: The Powder Clinical Trial Methodology*. Accepted to Military Health System Research Symposium (MHSRS), Orlando, FL, August 19-22, 2019.

Uhaa N, April M, Naylor J, Oliver J, Tanaka K, De Lorenzo RA, Schauer S: *A Survey of Combat Medic Airway Training And Experiences: A Preliminary Analysis*. Accepted to Military Health System Research Symposium (MHSRS), Orlando, FL, August 19-22, 2019.

Uhaa N, April M, Naylor J, De Lorenzo RA, Schauer S: *Ounces Make Pounds, Pounds Make Pain—An Assessment of The Medic Aid Bag*. Accepted to Military Health System Research Symposium (MHSRS), Orlando, FL, August 19-22, 2019.

Franks N, Perez A, Pride W, De Lorenzo RA: *Assessment of Far-Forward Provider Performance In Using a Hand-Held Algorithmic Electroencephalogram Device to Screen Traumatic Brain Injury*. #115, accepted to Military Health System Research Symposium (MHSRS), Orlando, FL, August 19-22, 2019.

Akhter F, Schoppe A, Navarro O, Carroll C, Priya J, Ricardo P, De Lorenzo RA, Adams BD, Feng Y, Hood RL: *Development of a Portable Suction Device for Combat Medics*. Summer Biomechanics, Bioengineering and Biotransport Conference (SB3C2019), Seven Springs, Pennsylvania, June 25-28, 2019.

## SNEAK PEEK—NEXT ISSUE

