

Mat Goebel, MD, MAS

Emergency Medicine

Education

Certificate, Clinical and Translational Science, Tufts University, Boston, MA	2023
MD, University of California San Diego, La Jolla, CA	2019
MAS, Clinical Research, University of California San Diego, La Jolla, CA	2018
Certificate, Paramedicine (<i>Valedictorian</i>), Utah Valley University, Orem, UT	2011
BA, Theatre Arts Studies (<i>Magna Cum Laude</i>), Brigham Young University, Provo, UT	2010

Postdoctoral Training

Emergency Medical Services Fellow, UMass Chan - Baystate, Springfield, MA	07/2023 - 06/2024
Emergency Medicine Research Fellow, UMass Chan - Baystate, Springfield, MA	07/2022 - 06/2023
Emergency Medicine Resident, UMass Chan - Baystate, Springfield, MA	07/2019 - 06/2022

Academic Appointments

Clinical Instructor Department of Emergency Medicine, UMass Chan – Baystate, Springfield, MA	07/2022 - Present
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Other Positions and Employment

Production Assistant, EM:RAP, Woodland Hills, CA	2017-2018
Volunteer Paramedic, Sandy City Fire Department, Sandy, UT	2012-2014
Freelance Audio Engineer / RF Coordinator, San Diego, CA	2010-2016
Chief Sound Engineer, Google, Mountain View, CA	2009-2009
Sound Technician, Brigham Young University Office of IT, Provo, UT	2007-2010
Referral Sound Engineer, International Alliance of Theatrical Stagecraft Employees, San Francisco, CA	2004-2009
Sound Engineer Supervisor, Paramount's Great America, Santa Clara, CA	2004-2005
Show Control Programmer, Nickelodeon Recreation, Orlando, FL	2004
Sound Engineer, Paramount's Great America, Santa Clara, CA	2003-2004
Shop Technician, Group3 Enterprises, Fremont, CA	1999-2000

Honors and Awards

Emmy for Special Event Coverage (National Academy of Television Arts and Science)	2011
Academic Merit Scholar (Utah Valley University)	2010-2011
Karl G Maeser Scholar (Brigham Young University)	2010
Scholarship (International Communication Industries Foundation)	2007-2010
Merit Scholar (Brigham Young University)	2007-2009
Edwin S. Hinckley Scholar (Brigham Young University)	2008
Member (Phi Kappa Phi Honor Society)	2008

Updated: September 6, 2023

Member (Golden Key Honor Society)	2008
Eagle Scout (Boy Scouts America)	2002

Educational Activities

Educational Leadership, Administration and Service

Core Curriculum Committee (Member), UC San Diego School of Medicine	2015-2019
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Teaching Activities in Programs and Courses

EMT Program Lecturer and Lab Instructor, National University, San Diego, CA	2017-2019
Anatomy Lab Teaching Assistant, UCSD School of Medicine, San Diego, CA	2017-2019
Paramedic Program Lecturer and Lab Instructor, Utah Valley University, Orem, UT	2012-2014
Part-time Lecturer, Brigham Young University Department of Theatre, Provo, UT	2008-2010

Advising and Mentoring

Residents

Joseph Stevens, Emergency Medicine Resident, UMass Chan - Baystate, Career/Residency Advising	2020 - 2023
Dean Cataldo, Emergency Medicine Resident, UMass Chan - Baystate, Career/Residency Advising	2021 - Present
Stephanie Ayala, Emergency Medicine Resident, UMass Chan - Baystate, Research Case Report Advising	2021 - 2023
Laura Director, Emergency Medicine Resident, UMass Chan - Baystate, Research Case Report Advising	2021 - Present

Investigation

Grants

Completed

5 TL1 TR 2546-5 Tufts University TL-1 "A novel algorithm to improve the prehospital diagnosis of STEMI" \$78,858, (direct \$73,202, indirect \$5,656) UC San Diego School of Medicine "TL-1 grant for Masters of Advanced Studies" Covered coursework tuition and living stipend	2022-2023
Intermountain Research Medical Foundation "A model for predicting emergency physician opinion of electrocardiogram tracing data quality." Statistical support. \$500.	2018-2019
Intermountain Research Medical Foundation "A model for predicting emergency physician opinion of electrocardiogram tracing data quality." Statistical support. \$500.	2012-2013

Current Unfunded Projects

The pharmacology of prehospital rapid sequence intubation and risk factors for awareness with paralysis	2023-Present
Upper vs Lower Extremity IO for Prehospital Cardiac Arrest	2021-Present

Health Care Delivery**Leadership Positions**

Ultrasound Service Manager UCSD Student Run Free Clinic, Pacific Beach, CA	2018-2019
Cardiology Service Manager UCSD Student Run Free Clinic, Pacific Beach, CA	2014-2016

Certification and Licensure

Massachusetts Board of Registration in Medicine	2021-2022
Nationally Registered Paramedic, National Registry of Emergency Medical Technicians	2011-2023

Clinical Activities

EKG Technician, Intermountain Healthcare, Murray, UT	2010-2014
Medical Technician, Boy Scouts of America, Fort AP Hill, VA	2010
Emergency Medical Technician, Brigham Young University EMS, Provo, UT	2009-2010
Camp Medic, Boy Scouts of America, Willits, CA	2008-2011

Clinical Innovations, Safety, and Quality Improvement Projects

Study of factors affecting door-to-EKG times, Baystate Medical Center	2021-2023
Implementation of High-Sensitivity Troponin, Baystate Medical Center	2020-2023

Scholarship**Peer-reviewed Publications**

1. **Goebel M**, Lauren M. Westafer, Stephanie A. Ayala, El Ragone, Scott J. Chapman, Masood R. Mohammed, Marc R. Cohen, et al. "A Novel Algorithm for Improving the Prehospital Diagnostic Accuracy of ST-Segment Elevation Myocardial Infarction." *Prehospital and Disaster Medicine*, December 4, 2023, 1–8. <https://doi.org/10.1017/S1049023X23006635>.
2. **Goebel M**, Vaida F, Kahn C, Donofrio JJ. A Novel Algorithm for Improving the Diagnostic Accuracy of Prehospital ST-Elevation Myocardial Infarction. *Prehosp Disaster med*. September 2019:1-8. doi:10.1017/S1049023X19004849
3. **Goebel M**, Dameff C, Tully J. Hacking 9-1-1: Infrastructure Vulnerabilities and Attack Vectors. *Journal of Medical Internet Research*. 2019;21(7):e14383. doi:10.2196/14383
4. Farah J, **Goebel M**, Pierce J, Donofrio JJ. Epidemiology of Prehospital Care at the San Diego (USA) Tijuana (Mexico) International Border Crossing. *Prehospital Emergency Care*. 2019;0(ja):1-7. doi:10.1080/10903127.2019.1640325
5. **Goebel M**, Bledsoe J. Push Notifications Reduce Emergency Department Response Times to Prehospital ST-segment Elevation Myocardial Infarction. *West J Emerg Med*. 2019;20(2):212-218. doi:10.5811/westjem.2018.12.40375
6. **Goebel M**, Tainter C, Kahn C, Dunford J V., Serra J, Pierce J, Donofrio JJ. An Urban 911 System's Experience with Left Ventricular Assist Device Patients. *Prehospital Emerg Care*. October 2018:1-19. doi:10.1080/10903127.2018.1532475
7. Coffey C, Serra J, **Goebel M**, Espinoza S, Castillo E, Dunford J. Prehospital Acute ST-Elevation Myocardial Infarction Identification in San Diego: A Retrospective Analysis of the Effect of a New Software Algorithm. *J Emerg Med*. May 2018. doi:10.1016/j.jemermed.2018.04.007.

8. **Goebel M**, Busico L, Snow G, Bledsoe J. A model for predicting emergency physician opinion of electrocardiogram tracing data quality. *J Electrocardiol.* 2018;51(4):683-686. doi:10.1016/j.jelectrocard.2018.05.001.
9. Tainter CR, Braun OÖ, Teran F, Nguyen AP, Robbins K, O'Brien EO, McMillan ZM, Schmidt U, Meier A, **Goebel M**, Pretorius V, Brambatti M, Adler ED, Seethala R. Emergency department visits among patients with left ventricular assist devices. *Intern Emerg Med.* December 2017:1-7. doi:10.1007/s11739-017-1776-8.
10. **Goebel M**, Bledsoe J, Orford JL, Mattu A, Brady WJ. A new ST-segment elevation myocardial infarction equivalent pattern? Prominent T wave and J-point depression in the precordial leads associated with ST-segment elevation in lead aVr. *The American journal of emergency medicine.* 2014;32(3):287.e5-8. doi:10.1016/j.ajem.2013.09.037

Books & Chapters

1. Smith SW. *The ECG in Acute MI : An Evidence-Based Manual of Reperfusion Therapy* 2nd Ed. Philadelphia: Lippincott Williams & Wilkins. (Pending)
2. *Human Condition.* UC San Diego School of Medicine (2014-2015)

Non-print / Online materials

1. EMRA. (2019, October) Nexus C-Spine Journal Club [EMRA*Cast] Retrieved from: <https://podcasts.apple.com/us/podcast/emra-cast/id1103929517>
2. **Goebel M.** (2017, August) Guest interview: De Winter's T Wave. [Emergency Medicine Reviews and Perspectives]. Retrieved from: <https://www.emrap.org/episode/emrapliveaugust/dewinterstwave>
3. **Goebel M.** (2015, March) 2014 Prehospital/EMS articles of the Year [PHARM: Prehospital and Retrieval Medicine]. Retrieved from <http://prehospitalmed.com/2015/03/03/2014-prehospitalems-articles-of-the-year/>
4. **Goebel M.** (2014, September) Pacemaker Panic #2 [Life In The Fast Lane]. Retrieved from <http://lifeinthefastlane.com/pacemaker-panic-2/>
5. **Goebel M.** (2014, April) De Winter's T Waves [Life In The Fast Lane]. Retrieved from <http://lifeinthefastlane.com/ecg-library/de-winters-t-waves>
6. **Goebel M.** (2014, April) Winter is coming... [Life In The Fast Lane]. Retrieved from <http://lifeinthefastlane.com/winter-is-coming/>

Invited Presentations

National

[When All Else Fails: Perimortem C-Section](#), ACEP Virtual Grand Rounds, Virtual February 2021

Regional

[Out of Hospital Cardiac Arrest: ED Perspective](#), Western New England Acute Cardiology Conference, Springfield, MA October 2022

[ECPR / ECLS](#), 51st Annual Samuel D. Plotkin Cardiovascular Symposium, Virtual September 2022

When All Else Fails: Perimortem C-Section, Washington University School of Medicine Steven R. Hall Trauma Symposium, Virtual October 2021

[Cardiac Arrest: An ED Perspective](#), Western New England Acute Cardiology Conference, Virtual October 2021

Surviving Suicide: Coping with the Silent Epidemic, California ACEP, Marina del Rey, CA	September 2018
NSTEMIs that need the cath lab now , Intermountain Healthcare EMS Conference, Murray, UT	April 2016
2015 Pre-hospital Research Update , Intermountain Healthcare EMS Conference, Murray, UT	April 2016
Killer EKGs (other than STEMI) , Intermountain Healthcare EMS Conference, Murray, UT	May 2015

Local

Tachycardias , UMass Chan - Baystate EM Grand Rounds, Springfield, MA	August 2023
EKGs: What Every Intern Needs to Know, UMass Chan - Baystate EM Medical Student Elective, Springfield, MA	March 2023
EKG Case Review: Ischemia, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	February 2023
Pacemakers and ICDs, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	July 2022
EKG Case Review: Bradycardia, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	June 2022
EKG Case Review: Toxicology, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	February 2022
EKG Case Review: Ischemia, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	October 2021
Getting Better at EMS EKGs Part 1 and Part 2 , UMass Chan - Baystate EM, Springfield, MA	April 2021
LVADs in the ED , UMass Chan - Baystate EM Grand Rounds, Springfield, MA	February 2021
Getting Better EKGs in the ED , UMass Chan - Baystate EM, Springfield, MA	August 2020
NSTEMIs that need the cath lab now! , Controversies and Consensus in Emergency Medicine, Virtual	August 2020
NSTEMIs that need the cath lab now, UMass Chan - Baystate EM Grand Rounds, Springfield, MA	August 2019
Code STEMI Train the Trainer, Unified Fire Authority, Salt Lake City, UT	December 2013
Best Practices for STEMI Care, Intermountain Healthcare STEMI Committee, Murray, UT	April 2013
STEMI Pearls and Pitfalls, Sandy City Fire Department, Sandy, UT	January 2013
EKG Pearls and Pitfalls in the ED, Emergency Nurse's Association Salt Lake City Chapter, Murray, UT	April 2012
What's new in Pre-hospital STEMI, Intermountain Medical Center STEMI Committee, Murray, UT	April 2012
STEMI Pearls and Pitfalls, Utah Fire Rescue Academy Faculty In-service, Orem, UT	February 2012
STEMI Pearls and Pitfalls, South Salt Lake Fire Department, South Salt Lake City, UT	February 2012

Other Presentations, Posters & Abstracts

International

Goebel M, Bledsoe J. Push notifications reduce Emergency Department response times to pre-hospital ST-segment myocardial infarction. Social Media and Critical Care Conference. Berlin, Germany. Poster Presentation. June 2017

National

Goebel M, Lolley RJ, Reed L, Ratcliff T, Jarvis, J. Intraosseous Access Location Does Not Change Rates of Return of Spontaneous Circulation in Pre-hospital Cardiac Arrest. National Association of EMS Physicians (NAEMSP) Scientific Assembly. Tampa, FL. Poster Presentation. January 2023

Farah J, **Goebel M**, Pierce J, Donofrio JJ. Epidemiology of 911 Calls at the San Diego Border Crossing. Fire-Rescue Med Conference. Henderson, NV. Poster Presentation. April 2019

Farah J, **Goebel M**, Pierce J, Donofrio JJ. Epidemiology of 911 Calls at the San Diego Border Crossing. National Association of EMS Physicians (NAEMSP) Scientific Assembly. Austin, TX. Poster Presentation. (Prehospital Emerg Care. September 2018:1-251) January 2019

Goebel M, Kahn C, Dunford J, Donofrio J. An Urban Fire Department's Experience with Left Ventricular Assist Device Patients. 2017 American College of Emergency Physicians (ACEP) Scientific Assembly. Washington D.C. Oral Presentation. (Annals of Emerg Med. Vol 70, No. 4S: Oct 2017.) October 2017

Goebel M, Bledsoe J. A Novel Method for Prehospital Diagnosis of ST-segment elevated myocardial infarction. Social Media and Critical Care Conference. Chicago, IL. Oral Presentation. June 2015

Regional

Goebel M, Goodrich M, Lutfy-Clayton C, Kellogg A, Osborne B, Westafer L. A coordinated social media strategy to aid the residency application and match process. Society for Academic Emergency Medicine New England Regional Meeting. Virtual Event. [Oral Presentation](#). April 2021

Goebel M, Bledsoe J. A Novel Method for Prehospital Diagnosis of ST-segment elevated myocardial infarction. University of Utah's 9th Annual Health Services Research Conference. Salt Lake City, UT. Poster Presentation. April 2014

Goebel M, Bledsoe J. Prehospital Diagnosis of ST-segment elevated myocardial infarction. Utah Valley University's 3rd Annual Emergency Services and Disaster Conference. Orem, UT. Oral Presentation. April 2014

Local

Goebel M, Lolley RJ, Reed L, Ratcliff T, Jarvis, J. Intraosseous Access Location Does Not Change Rates of Return of Spontaneous Circulation in Pre-hospital Cardiac Arrest. 25th Annual Clinical and Translational Science Graduate Program Symposium. Boston, MA. Oral Presentation. June 2023

Goebel M, Lolley RJ, Reed L, Ratcliff T, Jarvis, J. Intraosseous Access Location Does Not Change Rates of Return of Spontaneous Circulation in Pre-hospital Cardiac Arrest. Baystate Health Research and Education Celebration. Springfield, MA. Poster Presentation. May 2023

Academic Service

Internal Administration and Service

Department

Social Media Outreach (Faculty Liaison), Department of Emergency Medicine, UMass Chan - Baystate 2022 - Present

Social Media Outreach (Resident Chair), Department of Emergency Medicine, UMass Chan - Baystate 2020 - 2022

School

Emergency Medicine Interest Group (Senior Advisor), UC San Diego School of Medicine 2018-2019

Emergency Medicine Interest Group (President), UC San Diego School of Medicine 2017-2018

Emergency Medicine Interest Group (Co-President), UC San Diego School of Medicine 2016-2017

Emergency Medicine Interest Group (Class Representative), UC San Diego School of Medicine 2014-2016

Ultrasound Medicine Interest Group (Class Representative), UC San Diego School of Medicine 2015-2017

Student Council (Educational Computing Representative), UC San Diego School of Medicine 2014-2017

Health System

Technology & Architecture Review Board (Member), Baystate Health 2020-Present

Decedent Affairs Committee (Member), Baystate Health 2019-Present

EKG Transmission Task Force (Member), Los Angeles County EMS Agency 2017-2019

STEMI Quality Improvement Committee, Intermountain Healthcare 2011-2014

Professional Memberships and Activities

Society for Academic Emergency Medicine 2022-Present

- Research Committee (Member) (2022-2023)

Society of Ultrasound in Medicine, Member 2016-Present

American College of Emergency Physicians, Member

- EMRA Liaison to the Research Committee (2022-2023)
- EMS Committee (Member) (2020-Present)
- Medical Student Track Planning Committee (Member) California American College of Emergency Physicians (2018)

Emergency Medicine Residents' Association 2014-Present

- Research Committee (Assistant Vice Chair) (2021-2023)
- CaseCon (Director) (2022)
- CaseCon (Assistant Director) (2021)
- Informatics Committee (Member) (2015-2019)
- Research Committee (Member) (2015-2019)

Social Media (Chair), National Ultrasound Interest Group 2015-2019

Podcast Editor, EMS Medical Directors Association of California 2017-2018

American College of Medical Toxicology 2016-2017

National Association of Emergency Medical Technicians 2010-2014

Synergetic Audio Concepts 2005-2010

United States Institute for Theatre Technology 2005-2010

Audio Engineering Society 2004-2010

Editorial Responsibilities

Annals of Emergency Medicine, Social Media Intern 2017-2022

Smith SW. *The ECG in Acute MI: An Evidence-Based Manual of Reperfusion Therapy 2nd Ed.* Philadelphia: Lippincott Williams & Wilkins. Chief Editor. 2017-Present

American College of Emergency Physicians. <i>Critical care transport 2nd Ed.</i> In: Sudbury Mass.: Jones and Bartlett Publishers; 2017. Chapter 11 Neurologic Emergencies. Chapter 13 Cardiovascular Emergencies. Reviewer	2017
Wannacott, D. (2015, September) Medical Concepts: ECGs in Syncope [BoringEM]. Retrieved from https://canadiem.org/medical-concept-ecgs-in-syncope/ . Reviewer	2015
UCSD Human Condition, Editor	2014-2015

External Professional Service

International

Pre-hospital Pre-conference Planning Committee, Social Media and Critical Care Conference, Sydney, AU	2018-2019
Student Volunteer, Social Media and Critical Care Conference, Berlin, DE	2017
Student Volunteer, Social Media and Critical Care Conference, Chicago, IL	2015

Regional

AV Coordinator, Reanimate ECMO Conference	2019
Medical Student Track Planning Committee (Member), California American College of Emergency Physicians	2018
Podcast Editor, EMS Medical Directors Association of California	2017-2018
Student Volunteer, Reanimate ECMO Conference	2016-2018

Professional Development

Emergency Vehicle Operations Course	2023
Fundamentals of Medical Oversight Course	2023
Cadaver Regional Anesthesia Lab	2022
Advanced Trauma Life Support for Physicians	2019
NIH Stroke Scale International, National Institutes of Health	2018
Medical Spanish I + II, National Institutes of Health	2015
The Difficult Airway Course: EMS	2013
Introduction to Incident Command System, ICS-100	2023
Applying ICS to Healthcare Organizations, I-200	2008
ICS for Single Resources and Initial Action Incidents IS-200	2023
Emergency Support Function (ESF) #8, IS-808	2008