

# Curriculum Vitae

Last Updated: 12/02/2022

## **PERSONAL DATA**

Name: Joseph E. Tonna, M.S., M.D.  
Birth Place: Santa Rosa, CA  
Citizenship: United States

## **EDUCATION**

<b><u>Years</u></b>	<b><u>Degree</u></b>	<b><u>Institution (Area of Study)</u></b>
2017 - 2020	M.S.	University of Utah (Biostatistics/Clinical Research) Salt Lake City, UT
2013 - 2014	Fellow	University of Washington (Critical Care) Seattle, WA
2011 - 2013	Resident	Stanford University (Emergency Medicine) Stanford, CA
2010 - 2011	Intern	Stanford University (Emergency Medicine) Stanford, CA
2006 - 2010	M.D.	University of California, San Francisco (Medicine) San Francisco, CA
2001 - 2005	B.A.	University of Chicago (Biological Sciences with General Honors) Chicago, IL

## **BOARD CERTIFICATIONS**

08/14/2016 - 12/31/2026 American Board of Anesthesiology (Sub: Critical Care Medicine), Certified  
05/13/2014 - 12/31/2024 American Board of Emergency Medicine (Emergency Medicine), Certified

## **CURRENT LICENSES/CERTIFICATIONS**

2014 - 2022 State License (UT) - Physician (MD)  
2013 - 2017 Advanced Pediatric Life Support  
2011 - 2020 DEA Certificate - Physician (MD)  
2010 - 2022 Advanced Trauma Life Support  
2008 - 2020 Advanced Cardiac Life Support

## **UNIVERSITY OF UTAH ACADEMIC HISTORY**

### **Surgery (Cardiothoracic Surgery), 12/16/2019 - Present**

07/01/2021 Associate Professor  
12/16/2019 - 06/30/2021 Assistant Professor

### **Surgery (Cardiothoracic Surgery), 04/01/2016 - 12/15/2019**

04/01/2016 - 12/15/2019 Assistant Professor (Clinical)

### **Emergency Medicine, 09/01/2022 - Present**

09/01/2022 Adjunct Associate Professor

**Surgery (General Surgery), 08/21/2014 - 03/31/2016**

08/21/2014 - 03/31/2016 Assistant Professor (Clinical)

**PROFESSIONAL EXPERIENCE**

**Full-Time Positions**

2021 - Present Associate Professor with Award of Tenure, University of Utah, Salt Lake City, UT  
2014 - 2021 Assistant Professor, University of Utah, Salt Lake City, UT

**Editorial Experience**

2022 Guest Editor, Special Edition on Cardiogenic Shock, *Journal of Clinical Medicine (JCM)*.  
2015 - 2017 Editor for ACEP Critical Care Section Newsletter  
2013 - 2015 Associate Editor for ACEP Critical Care Section Newsletter

**Reviewer Experience**

Journal of the American Heart Association (ad hoc)  
Reviewer for *Annals of Emergency Medicine* (ad hoc)  
Reviewer for Annals of the American Thoracic Society (ad hoc)  
Reviewer for British Medical Journal Case Reports (ad hoc)  
Reviewer for *Circulation*(ad hoc)  
Reviewer for *Circulation: Cardiovascular Quality and Outcomes* (ad hoc)  
Reviewer for *Critical Care Medicine* (ad hoc)  
Reviewer for *Critical Care*(ad hoc)  
Reviewer for JAMA Cardiology (ad hoc)  
Reviewer for *Journal of Critical Care* (ad hoc)  
Reviewer for *Journal of Pediatric Intensive Care* (ad hoc)  
Reviewer for *Journal of Surgical Research* (ad hoc)  
Reviewer for *Lancet Respiratory* (ad hoc)  
Reviewer for *PLOS One* (ad hoc)  
Reviewer for *Scientific Reports* (ad hoc)  
Reviewer for *Western Journal of Emergency Medicine* (ad hoc)

**SCHOLASTIC HONORS**

2020 - Present Fellow of Critical Care Medicine (FCCM), American College of Critical Care Medicine  
2017 - Present Fellow, American College of Emergency Physicians (FACEP)  
2017 - 2019 Faculty Innovation-Research and Entrepreneurship (FIRE) Scholar  
2016 - 2018 Vice President's Clinical and Translational Research Scholar (VPCAT)  
2014 - Present Fellow, American Academy of Emergency Medicine (FAAEM)  
2012 - 2013 Johnson & Johnson Global Health Scholar  
2009 - 2010 Blood Scholarship, University of California, San Francisco

2009 “Most Innovative Research Project”, CAL/ACEP Scientific Assembly Research Forum, University of California, San Francisco

2007 Taussig Scholarship, University of California, San Francisco

2006 Dean’s Scholarship, University of California, San Francisco

2005 Mary Jean Mulvaney Scholar-Athlete Award (Senior Athlete with the Highest GPA), University of Chicago

2003 - 2005 University Athletic Association (UAA) All-Academic Recognition, University of Chicago

2003 - 2004 Berkman Scholarship in the Biological Sciences, University of Chicago

2001 - 2005 Dean’s List, University of Chicago

## **ADMINISTRATIVE EXPERIENCE**

### **Administrative Duties**

2022 - Present Board Member, Institutional Review Board, University of Utah

2018 - Present Medical Director, Cardiovascular ICU/Cardiothoracic Critical Care; Member of CVICU Governance Committee

2017 - Present Section Head, Cardiothoracic Critical Care, Division of Cardiothoracic Surgery

2015 - Present Associate Director, ECMO Services, University of Utah

2014 - 2017 Resident Education Director, Surgical Intensive Care Unit, University of Utah

### **Professional Organization & Scientific Activities**

2022 - Present Steering Committee, Extracorporeal Life Support Organization

2022 - Present Chair-Elect, Extracorporeal Life Support Organization

2021 - 2022 Chair-Elect/Chair/Past-Chair, Extracorporeal Life Support Organization, Scientific Oversight Committee (SOC), Registry Committee

2019 - 2021 Chair, Extracorporeal Life Support Organization, Scientific Oversight Committee (SOC), Extracorporeal Life Support Organization (ELSO)

2019 Chair-Elect, Extracorporeal Life Support Organization, Scientific Oversight Committee (SOC), Registry, Extracorporeal Life Support Organization (ELSO)

2017 - Present Committee Member, Extracorporeal Life Support Organization, Registry Scholarly Oversight Committee (SOC)

2017 - Present Member, Society of Critical Care Medicine, DISCOVERY Network

2016 - Present Member, Society of Critical Care Medicine, Research Section

2015 - 2017 Leadership Council, Society of Critical Care Medicine, Emergency Medicine Section

2014 - Present Member, Society of Critical Care Medicine, Emergency Medicine Section

2012 - 2013 Member, Emergency Medicine Residents' Association, Critical Care Committee

2012 - Present Member, American College of Emergency Medicine, Critical Care Committee

### **Grant Review Committee/Study Section**

2019 - Present Center for Clinical and Translational Science (CCTS) Grant Reviewer (ad hoc)

2017 National Science Foundation Scientific Review Panel (ad hoc)

### **Symposium/Meeting Chair/Coordinator**

- 2020 Utah Cardiac Recovery Symposium/Chairperson, University of Utah Health Sciences Center, Salt Lake City, Utah
- 2019 Utah Cardiac Recovery Symposium/Chairperson, University of Utah Health Sciences Center, Salt Lake City, Utah
- 2018 Utah Cardiac Recovery Symposium/Chairperson, University of Utah Health Sciences Center, Salt Lake City, UT
- 2017 Utah Cardiac Recovery Symposium/Chairperson, University of Utah Health Sciences Center, Salt Lake City, Utah
- 2016 Utah Cardiac Recovery Symposium/Chairperson, University of Utah Health Sciences Center, Salt Lake City, Utah

**PROFESSIONAL COMMUNITY ACTIVITIES**

- 2014 - 2018 Physician Member, Department of Health and Human Services, Disaster Medical Assistance Team (DMAT) UT-1
- 2013 Teaching Physician, John F. Kennedy Medical Center, Johnson & Johnson Global Health Scholar, Monrovia, Liberia, International Health Scholar exchange program
- 2012 Medical Team Volunteer, Disaster Medical Assistance Team, NATO Summit 2012 DMAT Deployment, Chicago, IL
- 2012 - 2014 Member, Department of Health and Human Services, Disaster Medical Assistance Team (DMAT) CA-6
- 2010 Site Medical Leader, Alameda County Sheriff's Office, Urban Shield, International Law Enforcement SWAT Team Competition, Oakland, CA
- 2008 Medical Team Volunteer, California Emergency Medical Services Authority, Golden Guardian, CALMAT, March Air Reserve Base, CA
- 2008 - 2014 Member, State of California, California Medical Assistance Team (CAL-MAT)
- 2008 - 2011 Medical Team Volunteer, Alameda County Sheriff's Office, Urban Shield, International Law Enforcement SWAT Team Competition, Oakland, CA
- 2008 - 2009 Volunteer, San Francisco Department of Public Health

**UNIVERSITY COMMUNITY ACTIVITIES**

**University of Utah Health**

- 2017 - 2020 Member, University of Utah Hospitals and Clinics, Interdisciplinary Committee (IDC), CVICU
- 2015 Member & Liaison, Trauma Review Committee, SICU Liaison
- 2015 - 2021 Member & Liaison, Critical Care Committee, Emergency Medicine Liaison
- 2015 - 2018 Member & Liaison, Physician Advisory Council, SICU/CVICU Liaison
- 2015 Resident Scheduler, Surgical Intensive Care Unit
- 2015 Member & Representative, University of Utah Hospitals and Clinics, Price Tag Project (Precision Diagnostics--Radiology), Surgical ICU and Emergency Medicine  
Project Goal: To implement a comprehensive, effective, measurable method to implement appropriate use of medical imaging
- 2015 - Present Member & Informatics Liaison, Surgical Intensive Care Unit, Information Technology Services (ITS)
- 2015 - 2016 Physician Lead, Surgical Intensive Care Unit, Early Mobilization Project

- 2014 - 2015 Educational Director, Surgical Intensive Care Unit
- 2014 - 2015 Physician Champion, University of Utah Hospitals and Clinics, Catheter Associated Urinary Tract Infection (CAUTI) Improvement Collaborative. Collaborative through the University Hospital Consortium to help start a performance project to reduce CAUTIs
- 2014 - 2015 Member, Surgical Intensive Care Unit, Interdisciplinary Committee (IDC)

**Department Level**

- 2014 - 2018 Member, Surgery, Graduate Education Committee, General Surgery, School of Medicine

**Division Level**

- 2018 - Present Member, Cardiothoracic Surgery, Clinical Competency Committee, Thoracic Surgery

**SERVICE AT PREVIOUS INSTITUTIONS**

- 2013 - 2014 Member, University of Washington, "OR to ICU Handoff" Improvement/Safety Committee
- 2013 - 2014 Member, University of Washington, ICU Delirium Prevention Research Committee
- 2010 - 2011 Chair, Stanford University School of Medicine, Kaiser Emergency Medicine Residency Applicant Socials
- 2008 - 2009 Co-Developer, University of California, San Francisco, Envenomation Protocols for California Academy of Sciences Venomous Animals, Co-developed protocols with Matthew R. Lewin, MD, PhD
- 2007 - 2010 Member, University of California, San Francisco, Emergency Medicine Interest Group (EMIG)
- 2007 - 2010 Chapter Head, University of California, San Francisco, Wilderness Medical Society (WMS)
- 2007 - 2010 President, University of California, San Francisco, Wilderness Medicine Student Interest Group (WMSIG)
- 2007 Member, University of California, San Francisco, Accepted Students Weekend Planning Committee
- 2006 - 2008 Medical Student Volunteer, University of California, San Francisco, UCSF Homeless Clinic (Tenderloin neighborhood, San Francisco)
- 2006 - 2007 Co-President, University of California, San Francisco, Emergency Medicine Interest Group (EMIG)
- 2004 - 2005 Team Representative & Secretary, University of Chicago, 'Order of the C' (Varsity athletic society)

**CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

- American Academy of Emergency Medicine
- American College of Emergency Physicians
- American Heart Association
- American Thoracic Society

Society of Critical Care Medicine  
Society of Thoracic Surgeons

## **FUNDING**

### **Active Grants**

06/15/18 - 04/30/23 1K23HL141596-01  
Optimizing Selection and Management of Cardiac Arrest Patients Treated with ECMO  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$175,104 Total Costs: \$189,000  
National Heart Lung & Blood Institute  
Role: Principal Investigator

### **Past Grants**

01/01/19 - 12/31/19 Silent ICU  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$30,000 Total Costs: \$30,000  
University of Utah Hospital Foundation  
Role: Principal Investigator

09/27/17 - 10/31/19 A Multicenter, Randomized, Double-blind, Parallelgroup, Clinical Study of S-649266 Compared with Meropenem for the Treatment of Hospital-acquired Bacterial Pneumonia, Ventilator-associated Bacterial Pneumonia, or Healthcare-associated Bacterial Pneumonia Caused by Gram-negative Pathogens  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$32,340 Total Costs: \$42,341  
Shionogi Usa Inc  
Role: Site Principal Investigator

07/01/17 - 06/30/18 Erdc Silent Alarm  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$5,000 Total Costs: \$5,000  
Educational Resource Development Council  
Role: Principal Investigator

03/01/17 - 02/28/20 Imagine Perfect Care--Project Sleep  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$60,000 Total Costs: \$60,000  
University of Utah Hospitals & Clinics  
Role: Principal Investigator

10/30/15 - 10/29/16 Innovation Core Grant--ICU Sleep Monitor  
Principal Investigator(s): Joseph E. Tonna  
Direct Costs: \$3,000 Total Costs: \$3,000  
National Science Foundation Innovation Corps  
Role: Principal Investigator

09/15/15 - 09/14/18 Granular Modeling--Simulating the Transmission of Healthcare Associated Infections in Hospitals and Control Strategies (RFTOP #2015-006)  
Direct Costs: \$2,000,000 Total Costs: \$2,000,000  
Centers for Disease Control and Prevention  
Role: Co-Investigator

- 01/01/09 - 12/31/09 Emergency Medicine Interest Group (EMIG) Education Grant  
Direct Costs: \$500 Total Costs: \$500  
Society for Academic Emergency Medicine  
Role: Project Coordinator
- 05/01/07 - 08/30/07 Dean's Summer Research Grant  
Principal Investigator(s): Matthew Lewin  
University of California, San Francisco  
Role: Researcher
- 01/01/07 - 12/31/07 Emergency Medicine Interest Group (EMIG) Education Grant  
Direct Costs: \$500 Total Costs: \$500  
Society for Academic Emergency Medicine  
Role: Project Coordinator
- 05/01/06 - 08/31/06 Dean's Summer Research Grant  
Principal Investigator(s): Mark Rollins  
University of California, San Francisco  
Role: Researcher

### **CLINICAL STUDIES**

- 2018 - 2019 Incidence of Diarrhea Using High and Low Osmolality Enteral Tube Feeding in Critically Ill Surgical Patients (NCT03487744)[Co-Investigator]
- 2017 - 2018 VOLUME/CHASER: Observation of VariatiOn in fLUids adMinistEred and CHarakterizAtion of vaSopressor REquirements in shock [Site-PI]
- 2017 - 2018 Sleep/Wake Protocol Implementation to Improve Sleep Quality and Reduce Delirium in a Surgical and Cardiovascular Intensive Care Unit (NCT03313115) [Principal Investigator]
- 2017 - 2021 Project Sleep I: Validation of Tessa to Gold Standard Formal Polysomnography (NCT03322371) [Principal Investigator]
- 2017 - 2018 Severe ARDS: Generating Evidence (SAGE)(NCT03021824) [Site PI]
- 2016 - Present Principal Investigator for Extracorporeal Resuscitation Outcomes Database/Extracorporeal Resuscitation Consortium. Multi-center Observational study of Extracorporeal Cardiopulmonary Resuscitation in US and Canada. Currently 8 centers.
- 2015 - 2018 SHEPherD: Granular Modeling Simulating the Transmission of Healthcare Associated Infections in Hospitals and Control Strategies. [Co-Investigator]

### **TEACHING RESPONSIBILITIES/ASSIGNMENTS**

#### **Course and Curriculum Development**

- 2014 - 2015 Surgical Intensive Care Unit Lecture Series
- 2008 - 2009 Course Coordinator, Wilderness Medicine, University of California, San Francisco
- 2007 Course Developer, Radiologic Imaging in the Emergency Department, UCSF School of Medicine  
This course was created with Dr. Breiman to teach radiologic interpretation skills and cases relevant to practice in an Emergency Department to medical and nursing students and clinicians

2007 Course Developer, An Introduction to the Primary Assessment and Managing Life-Threatening Injuries, UCSF School of Medicine  
Co-Developed a Patient Assessment/CPR/First Aid course that was integrated into the 1st year medical student curriculum in Fall of 2007. Course added in 2008 as permanent addition to medical student curriculum

### **Course Lectures**

2015 Lecturer, Surgery Clerkship - SICU issues, University of Utah, Surgery, Lecture on SICU topics for Medical Students

2015 Lecturer, Surgery Clerkship- SICU Issues, University of Utah, Lecture on SICU topics for Medical Students

2014 Lecturer, Surgery Clerkship - SICU issues, University of Utah, Surgery, Lecture on SICU topics for Medical Students

2014 Lecturer, SURG 7020: Surgery Clerkship, 16 students, University of Utah, Surgery

2013 Lecturer, Intern Procedures Course: Thoracic & Abdominal Ultrasound, University of Washington

2009 Lecturer, Wilderness Medicine Course, University of California, San Francisco, "Backcountry Trauma"

2009 Lecturer, Musculoskeletal Examination Course, UCSF School of Medicine

2009 Lecturer, Comprehensive Physical Examination Course, UCSF School of Medicine

2008 - 2009 Lecturer, Wilderness Medicine Course, University of California, San Francisco, "Splinting, Wound Care and Wilderness Medicine Skills," Lecture and Skills Session

2007 - 2009 Teaching Assistant, Advanced Emergency Department Procedures, UCSF School of Medicine, Instructed students to perform central and intraosseus lines, saphenous cut-downs, chest tube placements, lateral ocular canthotomies, cricothyrotomies, and needle decompressions on un-embalmed cadavers

2004 - 2005 Teaching Assistant, Biochemistry Course, University of Chicago

2003 - 2004 Writing Instructor, Core Biology, University of Chicago

### **Clinical Teaching**

2018 - Present Cardiovascular ICU Lecture Series

2015 - 2017 ICU Lecture Series, Surgical/Cardiovascular ICU

### **Laboratory Teaching**

2004 Teaching Assistant, Program for Research in the Biological Sciences (RIBS), University of Chicago

### **Small Group Teaching**

2019 Instructor, "LVADs: be not Afraid" (Introduction to the management of patients with left ventricular assist devices (VADs) for the Emergency Physician), American Academy of Emergency Medicine (AAEM) Scientific Assembly

2011 Leader/Instructor, Practice of Emergency Medicine Small Group, Stanford Physician Assistant Class



2007 - 2009 Small Group Instructor, An Introduction to the Primary Assessment and Managing Life-Threatening Injuries, UCSF School of Medicine

### **Mentoring/Advising**

#### Faculty

2020 - Present Advisor/Mentor, Christopher Kelly, University of Utah, Faculty Research Mentor  
*Trainee's Current Career Activities:* Assistant Professor, University of Utah Health Student, Masters of Science in Clinical Investigation, University of Utah

#### Fellow

2022 - Present Advisor/Mentor, Laura DiChiaccio, University of Utah

2021 - Present Advisor/Mentor, Nicholas Levin, University of Utah, Research and Career Faculty Mentor/Advisor  
*Trainee's Current Career Activities:* Critical Care Fellow, Stanford University

#### Resident

2022 - Present Advisor/Mentor, Joe Heiler, University of Utah

2022 - Present Advisor/Mentor, Jessica Smith, University of Utah

2018 - 2021 Advisor/Mentor, Nicholas Levin, University of Utah, Research/Career Faculty Mentor

2015 - 2020 Advisor/Mentor, Milos Buhavacs, University of Utah  
*Trainee's Current Career Activities:* Assistant Professor of Surgery, University of Texas

2014 - 2019 Advisor/Mentor, Jennwood Chen, University of Utah  
*Trainee's Current Career Activities:* Assistant Professor of Surgery, University of Utah Health

#### PhD/Doctorate

2017 - 2019 Content Advisor & PhD Committee, Thomas Reese, University of Utah

#### Masters

2017 - 2018 Content Advisor & Masters Committee, Sarah Beesley, University of Utah

2017 Masters Research Advisor, Hailey Ingebretsen, University of Utah  
*Trainee's Current Career Activities:* Statistician for Red Scientific

#### Medical Student

2019 - 2021 Advisor/Mentor, Krista Stephens, University of Utah  
*Trainee's Current Career Activities:* Resident in Emergency Medicine, University of New Mexico

2017 Advisor/Mentor, Kirstie Jarrett, University of Utah

2016 Advisor/Mentor, Corey Wolf, University of Utah, Mentored Corey Wolf through research in Veno-Veno ECMO database creation, data management, data extraction and analysis.

*Trainee's Current Career Activities:* Medical Student at University of Buffalo

2011 - 2012 Mentor, Stanford University, School of Medicine, Emergency Medicine Interest Group (EMIG)

### Undergraduate

2016 - 2017 Advisor/Mentor, Tyson Lambert, University of Utah

2016 - 2017 Advisor/Mentor, Devin Davis, University of Utah  
*Trainee's Current Career Activities:* Physician Assistant School

2016 - 2017 Advisor/Mentor, Brian Kasavana, University of Utah

2015 - 2017 Advisor/Mentor, Emilie Ungricht, University of Utah

2015 - 2016 Advisor/Mentor, Dillon Lawler, University of Utah

2015 - 2016 Advisor/Mentor, Hannah Louise Mika, University of Utah

2015 - 2016 Advisor/Mentor, Christian Brown, University of Utah

2015 - 2017 Advisor/Mentor, Taylor Burton JD, University of Utah

2015 - 2016 Advisor/Mentor, Wade Mather, University of Utah, Poster Title " Extracorporeal Cardiopulmonary Resuscitation for Cardiac Arrest - Predicting Survival"  
Presented - University of Utah Conference of Undergraduate Research - February 19, 2016  
Presented - University of Utah Undergraduate Research Symposium - April 12, 2016  
*Trainee's Current Career Activities:*

2015 - 2016 Advisor/Mentor, Avani Latchireddi, University of Utah, Poster & Abstract Presentation- Title " Improvement of Care In The Surgical Intensive Care Unit Through Family Feedback"  
Presented - University of Utah Conference of Undergraduate Research - February 19, 2016  
Presented - University of Utah Undergraduate Research Symposium - April 12, 2016  
*Trainee's Current Career Activities:* Masters in Pharmacology, University of Maryland

2014 - 2016 Advisor/Mentor, Madison Webb, University of Utah, Research Mentor

### **Graduate Student Committees**

2021 - Present Chair, Christopher Kelly, University of Utah

2019 - 2021 Member, Lexi Almberg, University of Utah

2017 - 2018 Member, Sarah Beesley, University of Utah

2017 - 2019 Member, Thomas Reese, University of Utah

2016 - 2017 Member, Anna Dalton, University of Utah

### **Didactic Lectures**

2020 "Introduction to Shock and Initial Management", Lecture for Emergency Medicine Interns

2016 Surgery Resident Didactic "Advanced Ventilator Management", University of Utah

2016 Ventilator Management for the Emergency Physicians  
2013 - 2014 Morning Didactic Lectures for Surgical & Medical ICU Residents, University of Washington (5x yearly)

### **Internal Teaching Experience**

2022 Cardiogenic Shock; Lecture for Pulmonary Critical Care Medicine Fellows  
2019 *Ventilator Management for the Emergency Physician*. Lecture for Emergency Medicine Resident Intern Orientation, 12 Resident Interns  
2019 Diagnosis and Management of Aortic Dissection in the Emergency Department  
2017 Ventilator Management for the Emergency Physicians  
2015 General Surgery Resident Didactic "Transfusion During Surgery", University of Utah  
2015 "ARDS, Basics and Beyond" Wednesday Morning Surgical Resident Didactic Lecture  
2013 Hyperoxia and TBI, Surgical Critical Care Conference Lecture, ICU faculty, fellows, residents and students, University of Washington Medical Center  
2012 Metabolic & Endocrine Emergencies. Residency Senior Lecture, Stanford/Kaiser Emergency Medicine Residency Conference, Stanford, CA

### **Additional Teaching Contribution**

2015 "Prone Positioning" Nurse Education Course, Surgical ICU

### CE Courses Taught

2022 "Optimizing Extracorporeal Cardiopulmonary Resuscitation Success; Evidence and Practicalities from the Experts." Medscape CME/CNE Roundtable activity in Extracorporeal CPR with Karl Kern MD, Zachary Shinar MD and Joseph Tonna MD MS

### **PEER-REVIEWED JOURNAL ARTICLES**

1. Ciullo AL, Wall N, Taleb I, Koliopoulou A, Stoddard K, Drakos SG, Welt FG, Goodwin M, Van Dyk N, Kagawa H, McKellar SH, Selzman CH, **Tonna JE** (2022). Effect of Portable, In-Hospital Extracorporeal Membrane Oxygenation on Clinical Outcomes. *J Clin Med*, 11(22).
2. Shou BL, Ong CS, Premraj L, Brown P, **Tonna JE**, Dalton HJ, Kim BS, Keller SP, Whitman GJR, Cho SM (2022). Arterial oxygen and carbon dioxide tension and acute brain injury in extracorporeal cardiopulmonary resuscitation patients: Analysis of the extracorporeal life support organization registry. (Epub ahead of print). *J Heart Lung Transplant*.
3. **Tonna JE** (2022). Patients receiving ECMO are special, but still only need a haemoglobin concentration of 7g/dL. (Epub ahead of print). *Lancet Respir Med*.
4. Perez NP, Witt EE, Masiakos PT, Layman I, **Tonna JE**, Ortega G, Qureshi FG (2022). Associations of cephalad drainage in neonatal veno-venous ECMO - A mixed-effects, propensity score adjusted retrospective analysis of 20 years of ELSO data. (Epub ahead of print). *J Pediatr Surg*.
5. Jentzer JC, Baran DA, Bohman JK, van Diepen S, Radosevich M, Yalamuri S, Rycus P, Drakos SG, **Tonna JE** (2022). Cardiogenic shock severity and mortality in patients receiving venoarterial extracorporeal membrane oxygenator support. (Epub ahead of print). *Eur Heart J Acute Cardiovasc Care*.

6. Greenwood JC, Talebi FM, Jang DH, Spelde AE, **Tonna JE**, Gutsche JT, Horak J, Acker MA, Kilbaugh TJ, Shofer FS, Augoustides JGT, Bakker J, Brenner JS, Muzykantov VR, Abella BS (2022). Topical nitroglycerin to detect reversible microcirculatory dysfunction in patients with circulatory shock after cardiovascular surgery: an observational study. *Sci Rep*, 12(1), 15257.
7. Carlson JM, Etchill E, Whitman G, Kim BS, Choi CW, **Tonna JE**, Geocadin R, Cho SM (2022). Early withdrawal of life sustaining therapy in extracorporeal cardiopulmonary resuscitation (ECPR): Results from the Extracorporeal Life Support Organization registry. *Resuscitation*, 179, 71-77.
8. Nakashima T, Ogata S, Noguchi T, Nishimura K, Hsu CH, Sefa N, Haas NL, Bělohávek J, Pellegrino V, **Tonna JE**, Haft J, Neumar RW (2022). Association of intentional cooling, achieved temperature and hypothermia duration with in-hospital mortality in patients treated with extracorporeal cardiopulmonary resuscitation: An analysis of the ELSO registry. *Resuscitation*, 177, 43-51.
9. **Tonna JE**, Selzman CH, Bartos JA, Presson AP, Ou Z, Jo Y, Becker L, Youngquist ST, Thiagarajan RR, Johnson MA, Rycus P, Keenan HT (2022). The Association of Modifiable Postresuscitation Management and Annual Case Volume With Survival After Extracorporeal Cardiopulmonary Resuscitation. *Crit Care Explor*, 4(7), e0733.
10. **Tonna JE**, Keenan HT, Weir C (2022). A qualitative analysis of physician decision making in the use of extracorporeal cardiopulmonary resuscitation for refractory cardiac arrest. *Resusc Plus*, 11, 100278.
11. Swol J, **Tonna JE**, Lorusso R (2022). A new stick in the bunch of reporting guidelines. *Artif Organs*, 46, 1725-1726.
12. Willers A, Swol J, van Kuijk SMJ, Buscher H, McQuilten Z, Ten Cate H, Rycus PT, McKellar S, Lorusso R, **Tonna JE** (2022). HEROES V-A-HEmoRrhagic cOMplications in veno-arterial Extracorporeal life Support-Development and internal validation of a multivariable prediction model in adult patients. *Artif Organs*, 46, 2266-2283.
13. Rali AS, Ranka S, Butcher A, Shah Z, **Tonna JE**, Anders MM, Brinkley MD, Siddiqi H, Punnoose L, Wigger M, Sacks SB, Pedrotty D, Ooi H, Bacchetta MD, Hoffman J, McMaster W, Balsara K, Shah AS, Menachem JN, Schlendorf KH, Lindenfeld J, Zalawadiya SK (2022). Early Blood Pressure Variables Associated With Improved Outcomes in VA-ECLS: The ELSO Registry Analysis. *JACC Heart Fail*, 10(6), 397-403.
14. Steurer MA, **Tonna JE**, Cohan GN, Burki S, Sciortino CM, Oishi PE (2022). On-Hours Compared to Off-Hours Pediatric Extracorporeal Life Support Initiation in the United States Between 2009 and 2018-An Analysis of the Extracorporeal Life Support Organization Registry. *Crit Care Explor*, 4(5), e0698.
15. Gannon WD, Stokes JW, Gong W, Lindsell CJ, **Tonna JE**, Bacchetta M, Rice TW, Semler MW, Casey JD (2022). Predicting Mortality for Patients Eligible for Extracorporeal Membrane Oxygenation for COVID-19. *Am J Respir Crit Care Med*, 206, 628-632.
16. Grandin EW, Nunez JI, Willar B, Kennedy K, Rycus P, **Tonna JE**, Kapur NK, Shaefi S, Garan AR (2022). Mechanical Left Ventricular Unloading in Patients Undergoing Venous Arterial Extracorporeal Membrane Oxygenation. *J Am Coll Cardiol*, 79(13), 1239-1250.
17. **Tonna JE**, Selzman CH, Bartos JA, Presson AP, Ou Z, Jo Y, Becker LB, Youngquist ST, Thiagarajan RR, Austin Johnson M, Cho SM, Rycus P, Keenan HT (2022). The association of modifiable mechanical ventilation settings, blood gas changes and survival on extracorporeal membrane oxygenation for cardiac arrest. *Resuscitation*, 174, 53-61.
18. **Tonna JE**, Selzman CH, Girotra S, Presson AP, Thiagarajan RR, Becker LB, Zhang C, Rycus P, Keenan HT, American Heart Association Get With the Guidelines-Resuscitation Investigators. (2022). Resuscitation Using ECPR During In-Hospital Cardiac Arrest (RESCUE-IHCA) Mortality

- Prediction Score and External Validation. *JACC Cardiovasc Interv*, 15(3), 237-247.
19. Bjornstad EC, Cutter G, Guru P, Menon S, Aldana I, House S, M Tofil N, St Hill CA, Tarabichi Y, Banner-Goodspeed VM, Christie AB, Mohan SK, Sanghavi D, Mosier JM, Vadgaonkar G, Walkey AJ, Kashyap R, Kumar VK, Bansal V, Boman K, Sharma M, Bogojevic M, Deo N, Retford L, Gajic O, Gist KM; SCCM Discovery VIRUS Investigators Group [including **Tonna JE**]. (2022). SARS-CoV-2 infection increases risk of acute kidney injury in a bimodal age distribution. *BMC Nephrol*, 23(1), 63.
  20. Owyang CG, Donnat C, Brodie D, Gershengorn HB, Hua M, Qadir N, **Tonna JE** (2022). Similarities in extracorporeal membrane oxygenation management across intensive care unit types in the United States: An analysis of the Extracorporeal Life Support Organization Registry. *Artif Organs*, 46, 1369-1381.
  21. Willers A, Swol J, Buscher H, McQuilten Z, van Kuijk SMJ, Ten Cate H, Rycus PT, McKellar S, Lorusso R, **Tonna JE** (2022). Longitudinal Trends in Bleeding Complications on Extracorporeal Life Support Over the Past Two Decades-Extracorporeal Life Support Organization Registry Analysis. *Crit Care Med*, 50, e569-e580.
  22. Wang L, Yang F, Zhang S, Li C, Du Z, Rycus P, **Tonna JE**, Alexander P, Lorusso R, Fan E, Ogino M, Brodie D, Combes A, Chen YS, Qiu H, Peng Z, Fraser JF, Shao J, Jia M, Wang H, Hou X (2022). Percutaneous versus surgical cannulation for femoro-femoral VA-ECMO in patients with cardiogenic shock: Results from the Extracorporeal Life Support Organization Registry. *J Heart Lung Transplant*, 41, 470-481.
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## REVIEW ARTICLES

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## **BOOK CHAPTERS**

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## **ADDITIONAL PUBLICATIONS**

### **Commentary**

1. Joseph E. Tonna, MD (12/17/2018). Confounding by Indication. [Commentary on: Nicolas Meneveau, et al; Outcomes after extracorporeal membrane oxygenation for the treatment of high-risk pulmonary embolism: a multicentre series of 52 cases, *European Heart Journal*, Volume 39, Issue 47, 14 December 2018, Pages 4196–4204, <https://doi.org/10.1093/eurheartj/ehy464>]. *Eur Heart J*.

### **Case Reports**

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### **Editorials**

1. Ciullo AL, **Tonna JE** (2022). ECPR may be the most effective intervention for refractory cardiac arrest-ever. *Resuscitation*, 179, 18-20.
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4. **Tonna JE** (2020). Negative Studies Should Inform Our Research and Care: Engaging Family Members in the Care of the Critically Ill. *Crit Care Med*, 48(7), 1077-1079.
5. **Tonna JE**, Gattinoni L, Keenan HT (2019). Beyond Tidal Volume in Acute Respiratory Distress Syndrome: Semiautomated Screening and Novel Ventilator Concepts. *Ann Am Thorac Soc*, 16(10), 1238-1240.

6. Joseph E. Tonna (09/1202917). Critical Care in the Emergency Department: An Interview with Dr. Rade Vukmir. *ACEPNow*,

### Letters

1. Grandin EW, Nunez JI, Kapur NK, **Tonna J**, Garan AR (2022). Reply: Left Ventricular Mechanical Unloading During VA-ECMO: Not If, But Who and When? [Letter to the editor]. *J Am Coll Cardiol*, 80(18), e157-e159.
2. **Tonna JE**, Tan CS, Hryniewicz K, Barbaro RP, Brodie D, MacLaren G (2022). Outcomes after extracorporeal life support for COVID-19 myocarditis: an analysis of the Extracorporeal Life Support Organization Registry. [Letter to the editor]. *Crit Care*, 26(1), 235.
3. **Tonna JE**, Peltan I, Brown SM, Herrick JS, Keenan HT, University of Utah Mechanical Power Study Group. (2020). Mechanical power and driving pressure as predictors of mortality among patients with ARDS. [Letter to the editor]. *Intensive Care Med*, 46(10), 1941-1943.
4. Acharya D, Torabi M, Borgstrom M, Rajapreyar I, Lee K, Kern K, Rycus P, **Tonna JE**, Alexander P, Lotun K (2020). Extracorporeal Membrane Oxygenation in Myocardial Infarction Complicated by Cardiogenic Shock: Analysis of the ELSO Registry. [Letter to the editor]. *J Am Coll Cardiol*, 76(8), 1001-1002.
5. Taleb I, Koliopoulou AG, Tandar A, McKellar SH, **Tonna JE**, Nativi-Nicolau J, Alvarez Villela M, Welt F, Stehlik J, Gilbert EM, Wever-Pinzon O, Morshedzadeh JH, Dranow E, Selzman CH, Fang JC, Drakos SG (2019). Shock Team Approach in Refractory Cardiogenic Shock Requiring Short-Term Mechanical Circulatory Support: A Proof of Concept. [Letter to the editor]. *Circulation*, 140(1), 98-100.

### Others

1. Wang Z, Zhe S, Zimmerman J, Morrisey C, **Tonna JE**, Sharma V, Metcalf RA (2022). Development and validation of a machine learning method to predict intraoperative red blood cell transfusions in cardiothoracic surgery. *Sci Rep* (12(1), p. 1355). England.
2. Teran F, Perman SM, Mitchell OJL, Sawyer KN, Blewer AL, Rittenberger JC, Del Rios Rivera M, Horowitz JM, **Tonna JE**, Hsu CH, Kotini-Shah P, McGovern SK, Abella BS (2020). Highlights From the American Heart Association's 2019 Resuscitation Science Symposium. *J Am Heart Assoc* (9(10), p. e016153). England.
3. **Tonna JE**, Hanson HA, Cohan JN, McCrum ML, Horns JJ, Brooke BS, Das R, Kelly BC, Campbell AJ, Hotaling J (2020). Balancing revenue generation with capacity generation: Case distribution, financial impact and hospital capacity changes from cancelling or resuming elective surgeries in the US during COVID-19. *medRxiv* United States.
4. Penn Medicine TTM Academy Podcast (2019). **Tonna JE**, Teran F. Interview for Penn Medicine's Targeted Temperature Management (TTM) Academy Podcast. "Episode 11 - ECMO Implementation for Refractory Cardiac Arrest in the ED." Sep 20, 2019 (19 min). ..
5. Submitted by the SAEM RAMS Research Committee, Chris Counts, MD, chair (2019). Interview with Nick Levin, MD regarding "Changes in Patients' MEWS Scores While in the Emergency Department Predict Mortality, ICU Admission and Length of Stay". *SAEM Pulse* (34(5), p. 44). SAEM.
6. Reigstad K, Al-Dulaimi R, Mone M, **Tonna JE**, Barton RG, Kraiss LS, Brooke BS (02/07/2016). Predicting ICU Readmission Among Vascular Surgery Patient: Development of A Predictive Nomogram. (2016) Park City: Vascular Endovascular Surgical Society Winter Meeting.

7. **Tonna J**, Lipman GS. (2012). Heat Illness – online questions. ACSM’s Sports Medicine: A Comprehensive Review. O’Connor F, Sallis R, Wilder R, St. Pierre P and Davis B (Eds.), *ACSM’s Sports Medicine* (2012). Philadelphia, PA,: Williams Wilkins Publishers.
8. **Tonna JE**, Rapoport L, Swaminathan A (2014). Intubating the Hemodynamically Unstable Patient. *EM Resident Magazine*.
9. Lewin MR, **Tonna J** (2012). Does Routine Pelvic Examination in the Setting of Abdominal Pain Inform Decision-Making in the Emergency Department? Tintinalli JE (Ed.), *Tintinalli’s Emergency Medicine Online Updates* (Available at <http://accessmedicine.mhmedical.com/updatesContent.aspx?bookid=543&sectionid=41716231>). New York, NY: McGraw-Hill.
10. **Tonna J**, Lipman GS. (2012). Field Side Emergencies – online questions. In: ACSM’s Sports Medicine: A Comprehensive Review (On-Line). O’Connor F, Sallis R, Wilder R, St. Pierre P and Davis B (Eds.), *ACSM’s Sports Medicine* (2012). Philadelphia, PA: Williams Wilkins Publishers.
11. **Tonna J**, Lipman GS (2012). Mountain Medicine – online questions. In: ACSM’s Sports Medicine: A Comprehensive Review. O’Connor F, Sallis R, Wilder R, St. Pierre P and Davis B (Eds.), *ACSM’s Sports Medicine* (2012). Philadelphia, PA,: Williams Wilkins Publishers.
12. **Tonna J**, Lipman GS (2012). Cold Illness – online questions. In: ACSM’s Sports Medicine: A Comprehensive Review. O’Connor F, Sallis R, Wilder R, St. Pierre P and Davis B (Eds.), *ACSM’s Sports Medicine* (2012). Philadelphia, PA,: Williams Wilkins Publishers.
13. **Tonna J**, Lipman GS (2012). Dive Medicine – online questions. In: ACSM’s Sports Medicine: A Comprehensive Review. O’Connor F, Sallis R, Wilder R, St. Pierre P and Davis B (Eds.), *ACSM’s Sports Medicine* (2012). Philadelphia, PA,: Williams Wilkins Publishers.
14. **Tonna J**, Lewin MR (2011). The Natural History and Traditional Management of Appendicitis Revisited: Data Imply That a Correct Diagnosis is More Important Than an Early Diagnosis. Tintinalli JE (Ed.), *Tintinalli’s Emergency Medicine Online Updates* (Available at <http://accessmedicine.mhmedical.com/updatesContent.aspx?bookid=543&sectionid=41716070>). New York, NY: McGraw-Hill.
15. **Tonna J**, Long A (2010). Emergency Medicine: Advanced Life Support for Out-of-Hospital Respiratory Distress. Tintinalli JE (Ed.), *Tintinalli’s Emergency Medicine Online Update* (Available at <http://accessmedicine.mhmedical.com/updatesContent.aspx?bookid=543&Sectionid=41715825>). New York, NY: McGraw-Hill.
16. **Tonna J**, Cizas A, Lewin MR (2010). Abdominal Compartment Syndrome: An Emergency Department Perspective. Tintinalli JE (Ed.), *Tintinalli’s Emergency Medicine Online Updates* (Available at <http://accessmedicine.mhmedical.com/updatesContent.aspx?bookid=543&Sectionid=4171578>). New York, NY: McGraw-Hill.
17. **Tonna J** (2008). Emergency Medicine: Advanced Cardiac Life Support in Out of Hospital Cardiac Arrest. Tintinalli JE (Ed.), *Tintinalli’s Emergency Medicine Online Updates* (Available at <http://accessmedicine.mhmedical.com/updatesContent.aspx?bookid=543&sectionid=41715383>). New York, NY: McGraw-Hill.

## Multimedia

1. EMA (05/01/2017). Interview. **Joseph Tonna**. Emergency Medicine: Reviews and Perspectives (EM:RAP) Emergency Medical Abstracts (EMA). "Practice Characteristics Of Emergency Department Extracorporeal Cardiopulmonary Resuscitation (eCPR) Programs In The United States: The Current Sate Of The Art Of Emergency Department Extracorporeal Membrane Oxygenation (ED ECMO). [Podcast], EM:RAP. Available: [www.emrap.org](http://www.emrap.org).

2. **Joseph Tonna** (12/01/2016). Scientific Assembly Wrap-Up and the Coming Year --A call for authorship [Web], American College of Emergency Physicians. Available: [https://www.acep.org/\\_Critical-Care-Section-MicroSite/Scientific-Assembly-Wrap-Up-and-the-Coming-Year---A-call-for-authorship/](https://www.acep.org/_Critical-Care-Section-MicroSite/Scientific-Assembly-Wrap-Up-and-the-Coming-Year---A-call-for-authorship/).
3. Tonna, JE (09/12/2016). Extracorporeal Cardiopulmonary Resuscitation in the Emergency Department [Web], American College of Emergency Physicians, Critical Care Section Newsletter. Available: [https://www.acep.org/\\_Critical-Care-Section-MicroSite/Extracorporeal-Cardiopulmonary-Resuscitation-in-the-Emergency-Department/](https://www.acep.org/_Critical-Care-Section-MicroSite/Extracorporeal-Cardiopulmonary-Resuscitation-in-the-Emergency-Department/).
4. **Tonna J**, Youngquist S, McKellar S, Shinar Z (06/09/2016). The University of Utah EDECMO Experience and the ERECT Collaborative [Podcast], ED ECMO Podcast. Available: <http://edecmo.org/edecmo-28-utah/>.
5. Tonna, JE (2015). Scientific Assembly Wrap Up and Sepsis Panel Discussion [Web], American College of Emergency Physicians, Critical Care Section Newsletter.
6. **Tonna JE** (2015). Esmolol Reduces Mortality in Septic Shock: A discussion with the author [Web], American College of Emergency Physicians, Critical Care Section Newsletter. Available: <https://www.acep.org/content.aspx?id=100673>.
7. **Joseph Tonna**, Scott Weingart (05/18/2014). The Logistics of Proning for ARDS [Podcast], EMCrit. Available: <http://emcrit.org/podcasts/logistics-proning/>.
8. Tonna, JE (03/01/2014). Prone Positioning: An experience of actually doing it [Web], American College of Emergency Physicians, Critical Care Section Newsletter. Available: <https://www.acep.org/content.aspx?id=96603>.
9. **Tonna JE** (2014). Ehlers Danlos [Web], EBSCO PEMSsoft. Available: <http://www.ebscohost.com/biomedical-libraries/pemsoft>.
10. **Tonna JE** (2014). Marfans Syndrome [Web], EBSCO PEMSsoft. Available: <http://www.ebscohost.com/biomedical-libraries/pemsoft>.

## **PENDING PUBLICATIONS**

### **Journal Articles**

1. Domecq JP, Lal A, Sheldrick CR, Kumar VK, Boman K, Bolesta S, Bansal V, Harhay MO, Garcia MA, Kaufman M, Danesh V, Cheruku S, Banner-Goodspeed VM, Anderson HL 3rd, Milligan PS, Denson JL, St Hill CA, Dodd KW, Martin GS, Gajic O, Walkey AJ, Kashyap R; Society of Critical Care Medicine Discovery Viral Infection and Respiratory Illness Universal Study (VIRUS): COVID-19 Registry Investigator Group [including **Tonna JE**] (In Press). Outcomes of Patients With Coronavirus Disease 2019 Receiving Organ Support Therapies: The International Viral Infection and Respiratory Illness Universal Study Registry. *Crit Care Med*, 1(49), 3.

### **Abstracts**

1. Qussay Marashly, MD; Iosif Taleb, MD; Elizabeth Dranow, PhD; Christos P. Kyriakopoulos, MD; Anwar Tandar, MD, Frederick G. Welt, MD, MSc; Tara Jones, MD, PharmD2; Joseph E. Tonna, MD, MS3, Sean D. Overton, MD3, Stephen H. McKellar, MD, MSc, Antigone G. Koliopoulou, MD, Line Kemeyou, MD, Kevin S. Shah, MD, Jose Nativi-Nicolau, MD, Stavros G. Drakos MD, PhD (In Press). Early Mortality Prediction in Acute Coronary Syndrome-Related Cardiogenic Shock Treated With Short-Term Mechanical Circulatory Support. ISHLT 41st Annual Meeting and Scientific Sessions, 2021 [Abstract].

## **RECENTLY PUBLISHED ABSTRACTS (LAST 3 YEARS)**

1. Benjamin L Shou, Chin Siang Ong, Laviensraj Premraj, Patricia Brown, Joseph E. Tonna, Heidi J Dalton, Bo Soo Kim, Steven P Keller, Glenn JR Whitman, Sung-Min Cho (2022). Arterial Oxygen and Carbon Dioxide Tension and Acute Brain Injury in Extracorporeal Cardiopulmonary Resuscitation Patients: Analysis of the Extracorporeal Life Support Organization Registry; ESICM [Abstract]. *MedRxIV: DOI 10.1101/2022.03.10.22272203*.
2. Tang W, **Tonna JE**, Smith BK, Kraiss LW, Griffin CL, Sarfati MR, Brooke BS (2021). Arterial Duplex Ultrasound Criteria for Predicting Limb Ischemia and Amputation Among Patients Undergoing Femoral Cannulation for Extracorporeal Membrane Oxygenation [Abstract].
3. My-Linh Nguyen, Emma Gause, Brianna Mills, **Joseph Tonna**, Heidi Alvey, Richard Saczkowski, Brian E Grunau, Lance B Becker, David F Gaieski, Scott T Youngquist, Jessica Hamilton, Jenelle Badulak, Samuel Mandell, Eileen Bulger, Nicholas J Johnson (2020). [Abstract 264: Traumatic and Hemorrhagic Complications After Extracorporeal Cardiopulmonary Resuscitation for Out-of-hospital Cardiac Arrest](#). American Heart Association. [Abstract]. *Circulation*.
4. Deepak Acharya, Mohammad Torabi, Mark Borgstrom, Kwan Lee, Karl B. Kern, Ranjith Shetty, Indranee Rajapreyar, Peter Rycus, **Joseph Tonna**, Peta Alexander and Kapildeo Lotun (2020). CLINICAL CHARACTERISTICS AND OUTCOMES OF PATIENTS WITH MYOCARDIAL INFARCTION AND CARDIOGENIC SHOCK RECEIVING EXTRACORPOREAL LIFE SUPPORT [Abstract]. *Journal of the American College of Cardiology*, 75(11).
5. Qussay Marashly, Iosif Taleb, Elizabeth Dranow, Kimiya Nourian, Tyson Burnham, Anwar Tandar, Anu Abraham, Frederick Welt, **Joseph Tonna**, Sean Overton, Stephen McKellar, Antigone Koliopoulou, Line Kemeyou, James Fang, Josef Stehlik, Jose Nativi-Nicolau and Stavros Drakos (2020). PREDICTORS OF MORTALITY IN ACUTE CORONARY SYNDROME-RELATED CARDIOGENIC SHOCK REQUIRING SHORT-TERM MECHANICAL CIRCULATORY SUPPORT [Abstract]. *Journal of the American College of Cardiology*, 75(11).
6. Tara Jones, Iosif Taleb, Elizabeth Dranow, Jason Chaney, Stephen McKellar, Antigone G. Koliopoulou, Craig Selzman, James Fang, Jose Nativi-Nicolau, **Joseph Tonna**, Sean Overton, Josef Stehlik, Frederick Welt, Anwar Tandar and Stavros Drakos (2020). SCAI CARDIOGENIC SHOCK CLASSIFICATION SYSTEM TO PREDICT SURVIVAL [Abstract]. *Journal of the American College of Cardiology*, 75(11).

## **POSTER PRESENTATIONS**

- |      |  |
|------|--|
| 2022 | An international cohort study to determine predictors of early mobilization in patients requiring ECMO for greater than 7 days   |
| 2019 | Julian Macedo MD, <b>Joseph E Tonna MD</b> . Prolonged Ventilation Rates in Complex Cardiac Surgery Patients. 16th Annual Multidisciplinary Cardiovascular and Thoracic Critical Care Conference. Baltimore, MD. 09/26/2019 - 09/28/2019   |
| 2017 | Davis D, Lambert T, <b>Tonna J</b> . <i>Family Satisfaction with Patient Care in the ICU</i> . Poster session presented at University of Utah Undergraduate Research Symposium, Salt Lake City. <a href="https://doi.org/10.6084/m9.figshare.5216227.v1">https://doi.org/10.6084/m9.figshare.5216227.v1</a> .  |
| 2009 | <b>Tonna JE</b> , Balanoff AM, Lewin MR. <i>Cross-Disciplinary Innovation: A Novel Method for Partitioning CT Scan Data to Characterize Acute Spinal Cord Injuries Using Techniques Developed in Field of Paleontology</i> . Poster session presented at Research Forum of the American College of Emergency Physicians, California Chapter (CAL/ACEP) Scientific Assembly, La Quinta, CA. |

- 2009 **Tonna JE**, Balanoff AM, Lewin MR. *Cross-Disciplinary Innovation: A Novel Method for Partitioning CT Scan Data to Characterize Acute Spinal Cord Injuries Using Techniques Developed in Field of Paleontology*. Poster session presented at California Academy of Sciences-UCSF Symposium on Evolution, San Francisco, CA.
- 2008 **Tonna JE**. *Analysis of Injury and Illness during Travel to the Gobi Desert*. Poster session presented at UCSF School of Medicine Dean's Summer Research Fellows Showcase, San Francisco, CA.
- 2007 **Tonna JE**. *Effect of O2 Tension on PMN Mediated Killing of Acinetobacter baumannii*. Poster session presented at UCSF School of Medicine Dean's Summer Research Fellows Showcase, San Francisco, CA.

## **ORAL PRESENTATIONS**

### **Keynote/Plenary Lectures**

#### International

- 2022 ELSO Registry Updates, 33rd Annual Extracorporeal Life Support Organization (ELSO) Conference; Sept 17th
- 2022 **Tonna JE**. "Adult ECPR ECMO Management." (*Virtual-Video*) Chinese Society of Extracorporeal Life Support (CSECLS) 2022 Conference, Nanjing, Jiangsu, China.
- 2022 **Tonna JE**. "Adult ECPR Mortality Prediction." (*Virtual-Video*) ExtraCorporeal Organ Support (*ECOS*) and Temporary Circulatory Support (*TCS*) Conference, Paris, France.
- 2021 **Tonna JE**. "Papers from the ELSO Registry." Extracorporeal Life Support Organization 32nd Annual Conference.
- 2019 **Joseph E Tonna & Peta Alexander**. Papers from the ELSO Registry. 30th Annual ELSO Conference 2019, Austin, TX, USA
- 2018 **Tonna JE**. Sleep in the Intensive Care Unit. Connect2Care Conference, Washington, DC

#### National

- 2021 **Tonna JE**. "ECPR for Cardiac Arrest and Post Arrest Care." Invited plenary lecture for Post-Arrest Care and Targeted Temperature Management 2021 Conference.

#### Local/Regional

- 2019 Nicholas Levin, MD, Joseph Tonna, MD. Changes in Patients' MEWS Scores while in the ED Predict Mortality, ICU Admission and LOS. Western Regional Society of Academic Emergency Medicine, 2019
- 2018 **Tonna JE**. "Should We Be Doing eCPR? The Patients, the Research, and the Barriers." Western Regional Society of Academic Emergency Medicine (WRSaEM)

### **Meeting Presentations**

#### International



- 2019 Levin N, Horton D, Sanford M, Graves K, **Tonna JE**. Failure to Normalize Vital Signs in the Emergency Department is Predictive of Morbidity & Mortality. Oral Presentation at Mediterranean Emergency Medicine Congress, Dubrovnik, Croatia.
- 2018 **Tonna JE**. "Resuscitation 4.0: Move Over Lucas, The Cannula Is Here." Cross Talk Session Panelist, Society of Critical Care Medicine (SCCM)

#### National

- 2020 **Tonna JE**. Mobilization of the Critically Ill. American Physical Therapy Association (APTA) Combined Section Meeting (CSM) 2020. Denver, CO, USA
- 2019 Levin N, Horton D, Sanford M, Graves K, **Tonna JE**. The Use of delta-Modified Early Warning Scores Predicts Additional Mortality Risk Within Quick Sequential Organ Failure Assessment-Negative Emergency Department Patients. Oral Presentation at the American College of Emergency Physicians, Research Forum, 2019. Denver, CO.
- 2019 **Joseph E. Tonna MD**, Julian Macedo MD, Vikas Sharma MD, Jason Glotzbach MD, Craig Selzman MD, Stephen McKellar MD. Long term survival over 10 years among 219 patients treated with extracorporeal membrane oxygenation. 16th Annual Multidisciplinary Cardiovascular and Thoracic Critical Care Conference. Baltimore, MD. 09/26/2019-09/28/2019.
- 2016 Tonna JE, Utah Cardiac Recovery Symposium, SHOCK Case Presentations: Emergency Room ECMO, University of Utah, Salt Lake City, Utah
- 2014 Awake Intubation for the Emergency Physician. New Speakers Forum, American College of Emergency Physicians 2014 Scientific Assembly
- 2008 Head Trauma: A Stepwise Approach in Austere Settings. Medicine for Mariners Conference
- 2007 Course Assistant, Wilderness First Aid Skills and Improvisation. Xtreme Emergency Medicine Conference, Course Instructor: Joanne Feldman, MD, Stanford University

#### Local/Regional

- 2016 Avani Latchireddi, **Joseph Tonna**. University of Utah. Improvement of Care In The Surgical Intensive Care Unit Through Family Feedback. University of Utah Undergraduate Research Symposium. Salt Lake City, UT.
- 2016 Avani Latchireddi, **Joseph Tonna**. University of Utah. Improvement of Care In The Surgical Intensive Care Unit Through Family Feedback. University of Utah Conference of Undergraduate Research. Salt Lake City, UT.
- 2012 Definitive Wound Management During Disasters. DMAT CA-6 Meeting, San Francisco, CA
- 2012 **Tonna JE**, Schreiber M, Lipman GS. Epidemiology of Drownings on the McKenzie River Watershed, OR. Research presentation at Stanford University Emergency Medicine Research Forum, Stanford, CA
- 2011 Disaster Orthopedic Trauma. DMAT CA-6 Meeting, San Francisco, CA
- 2011 Metabolic Endocrine Emergencies. Stanford University LifeFlight Lecture, Stanford, CA
- 2010 Hypothermia, DMAT CA-6 meeting. San Francisco, CA
- 2010 Expedition Medicine. "Down to a Science" Lecture Series, California Academy of Sciences, San Francisco, CA

- 2010 Expedition Medicine. "Night at the Museum," California Academy of Sciences, San Francisco, CA
- 2008 Head and Neck Trauma: Data-Driven Use of Radiography. DMAT CA-6 Clinician's Meeting, San Francisco, CA

### **Invited/Visiting Professor Presentations**

#### International

- 2021 **Tonna JE.** "ECPR" Invited talk. Extracorporeal Life Support Organization (ELSO) Adult ECMO Training Course.
- 2021 **Tonna JE.** "Assessment of Cardiac Function for VA ECMO." e-ISICEM Update on ECMO
- 2021 **Tonna JE.** "ECPR" Invited talk. Extracorporeal Life Support Organization (ELSO) or Extracorporeal Life Support Adult ECMO Training Course.
- 2020 **Tonna JE.** ECMO for Procedures. Society of Critical Care Medicine Critical Care Congress #49, 2020
- 2020 **Tonna JE.** ECPR: Who, What, When, and Why? Society of Critical Care Medicine Critical Care Congress #49, 2020
- 2013 *Hyperglycemia, DKA, HHNK—How to avoid a clean kill.* A.M. Dogliotti College of Medicine, Monrovia, Liberia

#### National

- 2021 **Tonna JE.** *Management of Patients on ECMO.* Seattle Area Chest Conference Grand Rounds, Division of Pulmonary, Critical Care and Sleep Medicine, Department of Medicine, University of Washington/Harborview Medical Center, Seattle, WA
- 2021 **Tonna JE.** "North American ECMO Databases." Extracorporeal Cardiopulmonary Resuscitation (ECPR) for Out-of-hospital Cardiac Arrest (OHCA) Meeting. National Institutes of Health (NIH) National Heart Lung & Blood Institute (NHLBI) Working Group. Session 2 Working Group: The value of registry data to advance the science and guide implementation

#### Local/Regional

- 2020 **Tonna JE.** ECMO & eCPR. Invited Lecture for American College of Surgeons (ACS) Regional Chapter Meeting

### **Grand Rounds Presentations**

- 2021 *ICU Management of ECPR Patients.* Division of Cardiothoracic Surgery, Department of Surgery, University of Utah Health
- 3/27/2018 *Should we be doing eCPR? The patients, the research, the barriers.* Division of Cardiothoracic Surgery, Department of Surgery, University of Utah, Salt Lake City, UT, USA
- 2015 *Surgical Critical Care: Striving Towards Excellence.* Division of General Surgery, Department of Surgery, University of Utah, Salt Lake City, UT, USA
- 2013 *Ultrasound in the Management of Trauma.* JFK Hospital, Monrovia, Liberia

## INTELLECTUAL PROPERTY

### **Patents**

- 11/17/2016 Joseph E. Tonna, Benjamin S. Brooke, Julia Beynon (Pending). Systems and Methods For Managing Patient Devices. United States
- 11/17/2015 Joseph E. Tonna, Benjamin S. Brooke, Julia Beynon (2015). Systems and Methods For Managing Patient Devices. United States

### **Copyrights**

- 09/23/2015 Joseph E. Tonna, F. Edward (Ed) Dudek, Mark J. Lehmkuhle, Christopher R. Jones, Julia Beynon, Benjamin S. Brooke, Alexander L. Colonna (2015). Sleep Monitor
- 06/19/2015 Joseph E. Tonna, Benjamin S. Brooke, Julia Beynon (2015). Mobile Alarm Application

## OTHER SCHOLARLY ACTIVITIES

### **Additional Research/Scholarship Contributions**

- 2018 Facilitator, Rapid-Fire Abstract Presentations, American Thoracic Society 2018 International Conference
- 2018 Facilitator, Oral Abstract Presentations, Society of Academic Emergency Medicine, 2018, Western Regional Conference
- 2017 Invitation to Present on Extracorporeal Resuscitation Consortium at Canadian ECPR Research Working Group Meeting, Ottawa, Canada, April 25-26, 2017
- 2015 University Health Care Partners Program (UHPP) Submission and Approval, Early Mobility in the SICU and CVICU
- 2015 - Present Extracorporeal Resuscitation Consortium --Principal Investigator Collaborative of 13 centers from across the United States and Canada to conduct shared multi-site research in eCPR
- 2014 - Present "Rounds Checklist & Plan of the Day" Sheet Development, Surgical and Cardiovascular ICU
- 2013 Elective training in ICU based extracorporeal life support/membrane oxygenation (ECLS/ECMO), Legacy Emmanuel Hospital, Portland, OR
- 2013 Advanced Training in comprehensive Transthoracic Echocardiography (TTE) exams with experience in Transesophageal Echocardiography (TEE)
- 2013 Credentialed in Emergency Medicine Ultrasound including: EFAST (including thoracic), AORTA, ECHO, IVC; Competent in RENAL, GALLBLADDER, TA/TV PELVIS, Orbital
- 2013 **Tonna JE.** Malaria, Ascariasis, Necator, Acute Respiratory Infections, Pediatric Resuscitation, Seizures, Altered Mental Status, Lassa Fever, Yellow Fever, Typhoid Fever (Separate Guidelines) Clinical Guidelines for Providers, JFK Hospital Emergency Department, Teaching Rounds & Nursing Education, Monrovia, Liberia
- 2009 **Tonna JE,** Lewin, MR. Envenomation Protocols. [Protocols] For California Academy of Sciences Venomous Animals. California Academy of Sciences and UCSF Department of Emergency Medicine
- 2008 - 2010 Participant in Wildlands Field Training Exercise CALFIRE Wildfire Medical Exercise (2008 & 2010)

WITNESS NOT RETAINED