1. Name: Scott M. Pappada

2. Education – degrees, discipline, institution, year:

Ph.D., Bioengineering, University of Toledo, Toledo, OH, 2010

B.S., Biomedical Engineering, Marquette University, Milwaukee, WI, 2005

3. **Academic Experience** – 8 Years

Assistant Professor, Department of Anesthesiology, University of Toledo College of Medicine and Life Sciences, Toledo, Ohio (Present)

Assistant Professor, Department of Bioengineering, University of Toledo, College of Engineering (Present) Prestige Faculty, Department of Electrical Engineering and Computer Science, University of Toledo, College of Engineering, Toledo, OH (Present)

Adjunct Assistant Professor, The Ohio State University College of Medicine, Department of Anesthesiology, (2013-Present)

Research Assistant, Department of Bioengineering, University of Toledo, 2005-2010

Teaching Assistant, Department of Bioengineering, University of Toledo, 2005

4. Non-academic experience:

Co-Founder and Director, Analytic Diabetic Systems, Inc., Dayton, Ohio (2012- Present)

Senior Biomedical Engineer, Aptima, Inc., Dayton, Ohio (2011-2016)

Senior Biomedical Researcher, Neurowave Systems Inc., Cleveland Heights, Ohio (2010-2011)

Researcher, Medtronic Minimed (Diabetes), Northridge, CA (2003-2004)

Marquette University Les Aspin Internship, US Food and Drug Administration, Rockville, MD (2002)

5. Certifications or professional registrations:

6. Current membership in professional organizations:

Professional Member Society of Critical Care Medicine (Present)

7. Honors and Awards

2015 Outstanding Initiative Aptima, Inc. Corporate Annual Achievement Award

2015 Second Place Award, Scientific Exhibit "Use of NASA Task Load Index Scale in the Evaluation of Neurocognitive Workload During Cardiac Anesthesia-based Simulation Scenarios", 2015 ANETHESIOLOGY Annual Meeting, San Diego, CA

2015 Third Place Award for Best Research Poster (Faculty Advisor of Presenter) Midwest Anesthesia Residents' Conference, Cleveland, Ohio

2014 Distinguished Alumni Hall of Fame Inductee, Warren City Schools System, Warren, Ohio

2013 Outstanding Initiative Aptima, Inc. Corporate Annual Achievement Award

2011 *Junior Investigator Travel Awardee*, Annual NIH Countermeasures against Chemical Threats (CounterACT) Network Research Symposium, Washington, D.C.

2005 *Outstanding Teaching Assistant Award*, Department of Bioengineering University of Toledo, Toledo, Ohio

8. Service Activities (most important within and outside the institution)

University, College, and Department

Present – University of Toledo Conflict of Interest Committee

2017–2018 University of Toledo Academic Regulations Committee

2019 University of Toledo Department of Bioengineering Faculty Search Committee

2019 University of Toledo Department of Bioengineering Graduate Admission Committee

9. Most Important Publications:

Refereed Journal Articles/Patents/Conference Papers – last 5 years (partial list)

<u>Pappada SM</u>, Woodling K, Owais MH, Zink EM, Dahbour L, Tripathi RS, Khuder SA, Papadimos TJ, Continuous glucose monitoring identifies relationship between optimized glycemic control and post-discharge acute care facility needs, BMC Res Notes, 2018, 11:533

Rudoni MA, Yost CN, Winegardner JE, Brown AR, <u>Pappada SM</u>, Papadimos TJ. *Utilization of Vancomycin Loading Doses in Patients with Renal Impairment*. The Internet Journal of Infectious Diseases. 2018 Volume 16 Number 1.

Vanderbilt A. A., <u>Pappada SM</u>, Stein, H., Harper, D., & Papadimos, T. J. (2017). *Increasing patient safety with neonates via handoff communication during delivery: a call for interprofessional health care team training across GME and CME*. Advances in medical education and practice, 8, 365.

<u>Pappada SM</u>, Papadimos TJ, *Clinical decision support systems: From medical simulation to clinical practice*. International Journal of Academic Medicine, 3(1), p.78.

Papadimos TJ, Sipes AC, Lyaker MR, Murphy CV, Tsavoussis A, <u>Pappada SM</u>. The importance of emotional intelligence to leadership in an Academic Health Center. International Journal of Academic Medicine. 2016; 2(1):57.

Pappada SM, Papadimos TJ, Lipps, JA, Feeney JJ, Durkee KT, Galster SM, et. al. (2016). Establishing an instrumented training environment for simulation-based training of health care providers: An initial proof of concept. *International Journal of Academic Medicine*, 2(1), 32.

Stawicki SP, Kalra S, Jones C, Justiniano CF, Papadimos TJ, Galwankar SC, <u>Pappada SM</u>, Feeney J, Evans DC, *Comorbidity Polypharmacy Score and Its Clinical Utility: A Pragmatic Practitioner's Perspective*. Review Article, Journal of Emergencies, Trauma, and Shock, 2015.

Book Chapters

Durkee, K., Hiriyanna, A., <u>Pappada, SM</u>., Feeney, J. and Galster, S., Multi-model Approach to Human Functional State Estimation. In *International Conference on Augmented Cognition* (pp. 188-197). Springer International Publishing, July 2016

Durkee K, <u>Pappada SM</u>, Ortiz A, Feeney J, Galster S, *Using Context to Optimize a Functional State Estimation Engine in Unmanned Aircraft System Operations*. in Foundations of Augmented Cognition, D.D. Schmorrow and C.M. Fidopiastis (Eds.): Proceedings of HCI International 2015, Springer-Verlag Berlin Heidelberg, pp. 24-35

Patents

Cameron BD and <u>Pappada SM</u> Multifunctional neural network system and use thereof for glycemic forecasting U.S. Patent No. 8,762,306 B2

Cameron BD and Pappada SM Neural Network System and Uses Thereof U.S. Patent No. 9,076,107 B2

Conference presentations and posters – last 5 years (partial list)

<u>Pappada SM</u>, et. al, *Development of a Novel Machine Learning-based Sepsis Risk Index for use in an Intelligent Antibiotic Decision Support System for the Hospital/Critical Care Setting*, Panel Presentation for Breakout Session in Clinical Decision Support, Robotics, and Autonomous Systems, 2018 Military Healthcare System Research Symposium (August 2018), Orlando, FL.

Dahbour L, Zink E, Khuder S, Trapathi R, Papadimos TJ, <u>Pappada SM</u>, *Degree of glycemic control as a predictor of post cardiac ICU discharge facility needs*, Research Snapshot Presentation, Society of Critical Care Medicine 47th Critical Care Congress, San Antonio, TX (February 2018).

Zink E, Dahbour L, Papadimos TJ, Woodling K, Tripathi R, Owais MH, Khuder S, <u>Pappada SM</u> A continuous glucose monitoring study to identify a relationship between optimization of glycemic control in a cardiovascular ICU on post-discharge long-term acute care facility needs, Poster presented at Ohio Society of Anesthesiologists Annual Conference, September 2017

<u>Pappada SM</u>, Feeney J, Salinas J, Papadimos, TJ, A Novel Measurement Technology to Improve Critical Care Provider Performance and Skill Acquisition, International Anesthesia Research Society Annual Meeting and International Science Symposium, Washington, DC (May 2017)

<u>Pappada SM</u>, Feeney J, Moffatt-Bruce S, Winfield S, Papadimos, TJ, *A Novel Measurement Technology to Improve Critical Care Provider Performance and Skill Acquisition*, Society of Critical Care Medicine 46th Critical Care Congress Honolulu, HI (January 2017)

<u>Pappada SM</u>, Feeney J, Papadimos, TJ, Salinas J, Mann-Salinas EA, *Investigating a novel sepsis risk index* for use in an intelligent antibiotic decision support system, Society of Critical Care Medicine 45th Critical Care Congress Orlando, FL (February 2016)

Castellon-Larios K, <u>Pappada SM</u>, Papadimos TJ. A novel decision support system for optimization of glycemic control in the critical care setting, Society of Critical Care Medicine 45th Critical Care Congress Orlando, FL (February 2016)

10. Professional development activities in the last five years:

Have attended professional conferences on a regular basis

11. Selected Research Support (last five years):

Ongoing Research Support

Medicaid Equity Simulation Project MEDTAPP Providers As Allies In Equity And Care (PAEC)—Ohio Colleges of Medicine Government Resource Center/Ohio Department of Medicaid, Role: Co-Investigator, 06/01/2018 – 08/31/2019, Total Funding: \$1.24M

Ohio Opioid Analytics Project— Ohio Colleges of Medicine Government Resource Center/Ohio Department of Health, Role: Co-Investigator, Project Lead Data Analyst, 06/01/2018 – 08/31/2019, Total Funding: \$110,000

Intelligent and Direct Antibiotic Decision Support System –Defense Health Agency Phase II SBIR (United States Army Institute of Surgical Research\Defense Health Program Contract W81XWH-15-C-0017). Role: Site Principal Investigator, 2\2017-9\2018, Total Funding (subaward): \$249,673

TRACR-T Confined Spaces: Tool for Rapid Assessment of Cognitive Readiness in Teams—US Air Force Phase II SBIR (Contract # FA8501-16-C-0020) Role: Site Principal Investigator, 2\2017-9\2018, Total Funding (subaward): \$149,000

Prior Research Support

Principled Design of an Augmented Reality Trainer for Medics, Phase I Small Business Technology Transfer (STTR), Defense Health Agency, subaward provided by Aptima, Inc., **Total Funding: \$44,995**, Role: Principal Investigator

ACLAMATE: Automated Cognitive Load Assessment for Medical Staff Training and Evaluation, Phase II Small Business Innovation Research (SBIR) via Defense Health Agency via Aptima, Inc. (Contract, W81XWH-14-C-0021), Total Funding: \$35,005, Role: Principal Investigator

Intelligent and Direct Antibiotic Decision Support System –US Army/Defense Health Agency SBIR Phase I/Phase II (United States Army Institute of Surgical Research\Defense Health Program). Role: Principal Investigator; Phase I: 11/2014-6/2016. Phase II: 4\2016-4\2018, Total Funding: \$1.15M

Warfighter Interface Technologies Advanced Research Programs (WITARP), United States Air Force Air Force Research Laboratory Broad Agency Announcement, 3/2014-3/2018, Role: Co-Investigator and Technical Lead, Total Funding: \$4.8M

ACLAMATE: Automated Cognitive Load Assessment for Medical Staff Training and Evaluation – SBIR Phase I/Phase II (Contract, W81XWH-14-C-0021, United States Army Medical Research and Material Command/Telemedicine and Advanced Technology Research Center) Role: Program Manager; Phase I: 12/2013-7/2014, Phase II: 3/2015-6/2016, Total Funding: \$1.15M

Beta Prototype Development of a Comprehensive Web-based Clinical Decision Support System (GlyCU) Supporting Optimization of Glycemic Control in the Hospital/Critical Care Setting —State of Ohio Third Frontier Program Technology Validation and Start Up Fund Award. Role: Principal Investigator; 11/2013-12/2014. Total Funding: \$98,366

Human Universal Measurement and Assessment Network (HUMAN) Technology, Demonstration, and Validation − SBIR Phase III (Contract FA8650-11-C-6236, Air Force Research Laboratory) Role: Co-Investigator and Technical Task Area Lead; 12/2011-12\2015. Total Funding: \$6M