



**US Army Institute of Surgical Research (USAISR) and National Trauma Institute (NTI) Symposium on
Automation and Decision Support Systems (DSS) for the ED, OR and ICU**

June 4th & 5th 2009

Marriott Plaza, Hidalgo A

Thursday June 4th

- 7:30 – 8:30 am** ***Continental Breakfast, Primavera Room A & B***
- 8:30 – 8:35 am** **Meeting Hidalgo A**
Introduction & logistics
CPT Keith Berry
U.S. Army Institute of Surgical Research
- 8:35 – 8:40 am** Overview of NTI
Ms. Sharon Smith
Executive Director
National Trauma Institute
San Antonio, TX
- 8:40 – 8:55 am** The need for Automation and DSS
Dr. Jose Salinas
Research Scientist
U.S. Army Institute of Surgical Research
Fort Sam Houston, TX
- 8:55 – 9:20 am** Medical/Trauma Perspective on Automation/DSS
COL Lee Cancio, MD
Task Area Manager – Combat Critical Care Engineering
U.S. Army Institute of Surgical Research
Fort Sam Houston, TX

COL (ret) John Holcomb, MD
Professor of Surgery
Chief, Division of Acute Care Surgery
Director, Center for Translational Injury Research
University of Texas Health Science Center
Houston, TX
- 9:20 – 9:30 am** Naval Systems Overview, Requirements,
Dr. Michael Given
Program Manager
Office of Naval Research
Washington, DC

9:30 – 9:45 am	Break
9:45 – 10:25 am	A European –and Personal – View of Systems for Acute Care– Prof. Steen Andreasson, IFAC Medical Systems
10:25 – 10:45 am	ED DSS – Dr. Paul Pepe, UT Southwestern
10:45 – 11:00 am	Break
11:00 -11:20 am	Monitoring and Treatment Challenges in Emergency Care: Implications for Automation and Decision Support Systems – Dr. Kevin Ward, Virginia Commonwealth University
11:20 -11:40 am	Computerized Protocols and Decision Support: IT for Clinicians – Dr. Bruce McKinley, UT Houston
11:40 – 12:00 pm	Informatics Research on Decision Support Systems for Critical Care Environments: On overview of work from the UT School of Health Information Sciences at Houston – Dr. Dean F. Sittig, UT Houston
12:00 – 1:00 pm	Lunch served in Primavera Room A&B
1:00 – 1:20 pm	TBD – Dr. Joshua Behr, ODU Virginia Modeling and Simulation Center
1:20 – 1:40 pm	Trade-Offs in Critical Care Information Systems: A Decade of Experience and Observations From a Trauma ICU – Dr. Patrick Norris, Vanderbilt
1:40 – 1:50 pm	Interoperability And Need For Standardization – LTC Evan Renz, USAISR
1:50 – 2:00 pm	Break
2:00 – 2:20 pm	A Self-Adaptive Inflammation Control Device – Dr. Yoram Vodovotz, UPMC
2:20 – 2:40 pm	Non-invasive monitoring in trauma patients with and without brain injury – Dr. Kenneth G. Proctor, University of Miami
2:40 – 3:00 pm	Wavelet Signal Processing and Machine Learning for Prediction of Hemorrhagic Shock – Dr. Kayvan Najarian, VCU
3:00 – 3:15 pm	Break
3:15 – 3:35 pm	EndoTool: Decision Support System for Tight Glucose Control – Dan Shwarzman, Hospira
3:35 – 3:50 pm	Tasks and goals of breakout session – COL Gilbertson, USAISR
3:50 – 4:00 pm	Break
4:00 – 5:30	Roundtable Discussions – Primavera A&B
	ED Clinical Requirements - ED Technical Requirements
	OR Clinical Requirements - OR Technical Requirements
	ICU Clinical Requirements - ICU Technical Requirements
5:30 – 7:30 pm	Reception – Victoria’s House

Friday June 5th

7:30 – 8:30 am	Continental Breakfast, Primavera Room A&B
8:30 – 8:40 am	Introduction to day 2 – Dr. George Kramer, UTMB-G
8:40 – 9:00 am	Group Summaries from Day 1 Roundtable Discussions
9:00 – 9:20 am	Monitoring volume therapy in critically ill patients: new approaches – Dr. Michael Kinsky, UT Medical Branch, Galveston
9:20 – 9:50 am	Trauma Resuscitation Errors and Computer Assisted Decision Support – Prof. Mark Fitzgerald, The Alfred Hospital
9:50 – 10:10 am	Expert decision support system for management and triage of combat causality care and closed loop management of combat causality care during transport using functional hemodynamic monitoring – Dr. Michael Pinsky, UPMC
10:10 – 10:20 am	Break
10:20 – 10:40 am	Autonomous controllers in the ICU-when,where, and how – Dr. Jay Johanningman
10:40 – 11:00 am	Ambient intelligence in the intensive care unit - Dr. Ongjen Gajic, Mayo Clinics
11:00 – 11:20 am	Control Systems, Modeling and Simulation in Medicine – Dr. Michael Tiller
11:20 – 11:40 am	Robots and Resuscitation - Dr. Steve Moulton, University of Colorado
11:40 – 12:00 pm	Closed Loop Anesthesia – Prof. Thomas Hemmerling, Montreal General Hospital
12:00 – 1:00 pm	Lunch, Primavera Room A&B
1:00 – 1:20 pm	Severe Traumatic Brain Injury - Monitoring and Management for Today and Tomorrow – Dr. Don Prough, UTMB-G
1:20 – 1:40 pm	Ventilator Automation – Mr. Richard Branson, University of Cincinnati
1:40 – 1:50 pm	Design Programming for Medical Devices – Dan Purvis, Optimization
1:50 – 2:10 pm	Southwest Research Institute – Dr. Keith Bartels
2:10 – 2:20 pm	Break
2:20 – 2:40 pm	Advances in Process Modeling, Design & Automation at IBM Research – Fred Wu, IBM
2:40 – 2:55 pm	Future Visions of Automation and C-DSS in Health Care – CPT Keith Berry, USAISR
2:55 – 3:10 pm	Break
3:10 – 4:10 pm	Roundtable Discussions – Refinement of previous day’s work and define future
4:10 – 4:30 pm	Presentation by Break-out Chairs on final recommendations
4:30 – 4:40 pm	Summary and Charge for Action

4:40 – 4:45 pm

Smart Monitoring – Dr. George Kramer, UTMB-G

4:45 – 5:00

Concluding Remarks – Dr. Steven Wolf, USAISR