

November 15, 2007

Attn: Sue Anne Tae

WANG, ERNEST
VOZENILEK, JOHN.
KHARASCH, MORRIS

Richard M. Green, MD
Associate Professor of Medicine
Director, Medical Student Summer Research and Research Thesis Programs
Northwestern University, Feinberg School of Medicine
303 E. Chicago Avenue, Ward 1-003
Chicago, IL 60611-3008.

Dr. Green,

Thank you for your recent communication regarding the Medical Student Summer Research and Research Thesis Programs. My colleagues Drs. John Vozenilek and Morris Kharasch and I appreciate the opportunity to provide you with a summary of the research projects we are currently conducting at our simulation center. We are very excited and interested in participating in the program and could mentor 1-2 medical students for the summer.

Of note, I was a recipient of a MSSRP grant in 1992 while I attended Northwestern medical school. I performed basic science research with Drs. James ST Yao and William Pearce in the Division of Vascular Surgery at Northwestern. To be able to give back to the program would be a great honor for me.

Thank you for your consideration and please do not hesitate to contact us with any questions you may have.

Regards,

Ernest Wang, MD, FACEP
Assistant Professor
Northwestern University Feinberg School of Medicine
Division of Emergency Medicine
Evanston Northwestern Healthcare
Associate Residency Director, Northwestern Emergency Medicine Residency

Northwestern University Medical School Medical Student Summer Research Program (MSSRP) And Research Thesis Program (RTP)

Mentor Information for Ernest Wang, MD, John Vozenilek, MD, and Morris Kharasch, MD,

1) Research description

General research description

Since its inception in 2002, the Center for Simulation Technology and Academic Research [CSTAR] at Evanston Northwestern Healthcare has focused on patient safety. Since that time the CSTAR project has grown substantially and now occupies a permanent training space in Evanston Hospital (approximately 1600 square feet) and at Highland Park Hospital (approximately 4000 square feet). Both centers utilize multiple high fidelity simulators [HFS] and are capable of producing simultaneous multiple patient encounters. Both labs are equipped with audiovisual recording equipment and suitable conference spaces to facilitate debriefing. The center has been used extensively for nurse to physician communications using HFS and for doctor-patient communications using standardized patients. CSTAR is now part of the process of physician credentialing at Evanston Northwestern Healthcare (ENH). ENH now requires staff physicians wanting to provide procedural sedation to complete an evaluative session in the simulation lab prior to credentialing. Our resources have grown with our demand and currently eight of our emergency medicine staff physicians actively participate in training and evaluation. One and one half full time nurse educator positions are funded at the center as well as full and part-time simulation technicians and patient actors.

Under the leadership of Drs. Vozenilek (Director, McGaw Northwestern Simulation Network), Kharasch, and Wang, medical students, internal medicine, and emergency medicine residents from both Northwestern University and the University of Illinois at Chicago are other frequent recipients of training at our center. All of the last three classes of graduating medical students (approximately 150 per class) from Northwestern University's Feinberg School of Medicine have received a simulation experience in emergency medicine management principles at CSTAR. Likewise their feedback is highly favorable (4.7 of 5) and since its inception only 5 people of the approximately 450 medical students have indicated that they would not wish to return for more training in this way.

Description of potential MSSRP and RTP projects

1. Patient Safety: Enhancing Physician Communications at Transitions of care
2. Patient Safety: Use of a dedicated Central Venous Access cart to reduce Iatrogenic Infection due to lapses in sterile technique
3. Patient Safety: Housestaff Situational Awareness "Enter the Situation Room"
4. Rapid Response Team Training Enhancing communications between healthcare professionals.
5. Developing Peer Review Protocols for Online Simulation Resources
6. Emergent Procedural Instructional Collaboration (EPIC) Procedure project: Develop scoring database for procedure documentation and evaluation.
7. Case development – assist in case development for the AAMC MedEDPORTAL Simulation Case Bank.
8. Simulation-based web content development - Develop web-based instructional video and/or other content using simulation technology. Familiarity with Mac computers, iMovie and/or Final Cut is preferable.

2) Cover letter - see attached

3) Biosketches – see attached

Peer Reviewed Publications

Jon Van Roo, **Ernest Wang**, **John Vozenilek**, Amer Aldeen, Jeffrey Graff, Chris Pettineo. Central Venous Access: Right Internal Jugular Vein Approach. Acad Emerg Med, 2007. Submitted.

Ernest Wang, **John Vozenilek**, **Chris Pettineo**. The Emergent Cricothyrotomy. Acad Emerg Med. 2007. Accepted for publication.

Matthew Levine, **Ernest Wang**, **John Vozenilek**, Chris Pettineo. The Emergent Tube Thoracostomy. Acad Emerg Med. 2007. Accepted for publication.

Wang, Ernest E. MD; Vozenilek, John A. MD; Flaherty, John MD; Kharasch, Morris MD; Aitchison, Pam RN; Berg, Abra. An Innovative and Inexpensive Model for Teaching Cricothyrotomy. Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare. 2(1):25-29, Spring 2007.

William F. Bond, Richard L. Lammers, Linda L. Spillane, Rebecca Smith-Coggins, Rosemarie Fernandez, Martin A. Reznick, **John A. Vozenilek**, James A. Gordon on Behalf of the Society for Academic Emergency Medicine Simulation Task Force The Use of Simulation in Emergency Medicine: A Research Agenda Acad. Emerg. Med. 2007 14: 353-363.

Frederick Korley, **John Vozenilek**, Shashi Bellam, Paul Pribaz, and **Ernest Wang**. A Fiberoptic Intubation Course for Emergency Airway Management Training. Acad. Emerg. Med. 2006 13: S209-b-210S -b.

Susan E. Farrell, Charissa Pacella, Daniel Egan, Victoria Hogan, **Ernest Wang**, Kriti Bhatia, Cherri D. Hobgood on behalf of the Society for Academic Emergency Medicine, Undergraduate Education Committee. Resident-As-Teacher: A Suggested Curriculum for Emergency Medicine. Acad. Emerg. Med. 2006 13: 677-679.

John Vozenilek, Ernest Wang, Morris Kharasch, Britney Anderson, and Amit Kalaria. Simulation-based Morbidity and Mortality Conference: New Technologies Augmenting Traditional Case-based Presentations. Acad. Emerg. Med. 2006 13: 48-53.

Ernest E. Wang and **John A. Vozenilek**. Addressing the Systems-based Practice Core Competency: A Simulation-based Curriculum. Acad. Emerg. Med. 2005 12: 1191-1194.

John Vozenilek, J. Stephen Huff, Martin Reznick, and James A. Gordon. See One, Do One, Teach One: Advanced Technology in Medical Education. Acad. Emerg. Med. 2004 11: 1149-1154.

John Vozenilek, Jonathan Handler, and Amy Kontrick. Augmentation of the Medical Student Rotation with High-fidelity Simulation: Learning by the Numbers. Acad. Emerg. Med. 2004 11: 898.

John Vozenilek, Jamie Collings, and **Ernest Wang**. Integration of High-fidelity Simulation into a Systems-based Modular Curriculum for Emergency Medicine Residents
Acad. Emerg. Med. 2004 11: 898-a.

John Vozenilek, Michael Gillam, **Morris Kharasch**, Tim Heilenbach, Jonathan Lippitz, **Ernest Wang**, Rick Gimbel, John Flaherty, and John Handler. EMEDU: Emergency Medicine Education Online. Acad. Emerg. Med. 2002 9: 1061

John Vozenilek, Jonathan Lippitz, Michael Gillam, Rob Rodgers, and Rick Gimbel. Emergency Electrocardiography Online Teaching Module. Acad. Emerg. Med. 2002 9: 1061-a.

4) Trainees from our lab:

- *Michelle Sergel, MD* - EM resident (2001-03), currently Emergency Medicine attending at Cook County Hospital, Rush Medical College, Chicago, IL. Co-director of simulation.
- *Fred Korley, MD* - EM resident (2002-2006), currently Emergency Medicine attending at Johns Hopkins School of Medicine, Baltimore, MD. Director of simulation.
- *Christian Young, MD* - EM resident (2001-2005), currently Emergency Medicine attending at University of Las Vegas, Nevada.
- *Amer Aldeen, MD* - EM resident (2001-2005), current Emergency Medicine attending at Northwestern Memorial Hospital, Chicago, IL.
- *Abra Berg, BA* - Northwestern undergraduate (2005-7) entered Rush Medical School 2007
- *Chris Pettineo, BA* - undergraduate (2005-present) applying for medical school

5) Research Area - clinical science

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Kharasch, Morris S		POSITION TITLE Associate Professor of Emergency Medicine	
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Illinois Medical College of Wisconsin	BA MD	1981-1984 1984-1988	Business Administration Medicine

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. Positions and Honors.**Positions and Employment**

1988-1992 Medical Residency, Emergency Medicine, Northwestern University
 1991-1992 Chief Resident, Northwestern Emergency Medicine Program
 1992- Attending Physician, Evanston Northwestern Healthcare (ENH)
 1992- Clinical Faculty Emergency Medicine, Medicine, Northwestern University, Chicago, IL
 1992-2003 Associate Residency Director, Emergency Medicine Northwestern University
 2002- Director of Special Programs, Division of Emergency Medicine, ENH
 2005- Professional Staff Officer, ENH Medical Group

Other Experience and Professional Memberships:

1988- American College of Emergency Physicians (ACEP)
 1992-2004 Member, Medical Education Committee, ENH
 1992- Illinois College of Emergency Physicians
 1992- Society for Academic Emergency Medicine
 1995-2002 Member, Business Committee
 1995- Member, Disaster Committee, ENH
 1999- National Oral Board Examiner, American Board of Emergency Medicine
 2003- Member, Child Abuse Committee, ENH
 2004- Member, Graduate Medical Education Committee
 2005 Member, Ethics Committee

Honors:

1981 Bronze Tablet – University of Illinois
 1988 AOA – Medical College of Wisconsin
 1992 Thomas R. Mulroy Award: “For Excellence in Emergency Medicine”
 1996 Teacher of the Year, Northwestern University Emergency Medicine Residency
 1998 Teacher of the Year, Northwestern University Emergency Medicine Residency
 2006 Teacher of the Year, Northwestern University Emergency Medicine Residency

3. Selected peer-reviewed publications (in chronological order).

1. Kharasch M. Cardiac arrest secondary to Indomethacine induced renal failure. Journal of Emergency Medicine, Vol. 8(1) 51-54, 1990.
2. Kharasch M, Longano J. Lawn mower injuries: A case report. Journal of Emergency Medicine, Vol. 10, PP 135-138, 1992.
3. Kharasch M, Graff JG. Emergency management of the airway. Critical Care Clinics, Vol. 11, Number 1. January 1995.
4. Senturia YD, Lebailly S, Horwitz E, Kharasch M. A case control study: Bicycle-riding circumstances and injuries in school aged children. Archives of Pediatric and Adolescent Medicine; May, 151(5):485-9; 1997.
5. Chuengs DS, Kharasch M. Evaluation of the patient with closed head trauma: An evidenced based approach. Emergency Medicine Clinics of North America Feb 1999 17: 1
6. Flaherty J, M Kharasch, and J Graff. Evaluation of dual residency training in internal medicine/emergency medicine. Academic Emergency Medicine 2001 8: 472-a-473-a.
7. Vozenilek J, Gillam M, Kharasch M, Heilenbach T, Lippitz J, Wang E , Gimbel R, Flaherty J, Handler J. EMEDU, Emergency Medicine Education Online. Academic Emergency Medicine 2002 9: 1061.
8. Vozenilek J, Wang E, Kharasch M, Anderson B, Kalaria A. Simulation-based morbidity and mortality conference: New technologies augmenting traditional case-based presentations. Academic Emergency Medicine 2006 13: 48-53

C. Research Support.

Ongoing Research Support

Highland Park Foundation Grant, Impact of Simulation on Community and Pre-Hospital Care Training

1 H34MC04373-01-00 Adler (PI) 0.6 Calendar Months (in-kind)
EMSC

Department of Health and Human Services Health Resources and Services Administration [HRSA] EMSC Targeted Issue Grants Development and Validation of a Simulator-Based Emergency Medicine Curriculum for Emergency Care Providers
Role: Co-investigator

1 U18 HS016640-01 Vozenilek (PI) 9/30/06-9/29/08 0.6 Calendar Months
AHRQ

Department of Health and Human Services Health Resources and Services Administration [HRSA] AHRQ Simulation-based Training Program to Augment EMR-based Handoff Tool
Role: Co-investigator

Completed Research Support

6 T01HP01401-01-01 Timothy B. Erickson (PI) 7/04-7/05 0.6 Calendar Months (in-kind)
HRSA

Department of Health and Human Services Health Resources and Services Administration Bioterrorism Training and Curriculum Development Program
Role: Bioterrorism Training Consultant

Co-Investigator: Illinois Department of Public Health Grant for Public Safety Simulation Training Program to develop a second high fidelity training site and assess its impact, 2003

Principal Investigator/Program Director (Last, First, Middle): Vozenilek, John A

Co-Investigator: Evanston Northwestern Healthcare Physicians Group Research Grant to establish and assess the impact of the Center for Simulation Technology Academics and Research, 2003

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME John A Vozenilek		POSITION TITLE Assistant Professor, Emergency Medicine	
eRA COMMONS USER NAME JVOZENILEK			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Florida, Gainesville, FL	BS	1988-1992	Microbiology
University of Miami, Coral Gables, FL	MD	1992-1996	Medical School

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

1996-2000 Residency, Emergency Medicine, Northwestern University
 2000- Clinical Faculty Emergency Medicine, Medicine, Northwestern University, Chicago, IL
 2000-2001 Attending Physician, Northwestern Memorial Hospital, Chicago, IL
 2000-2001 Assistant Residency Director, Emergency Medicine Northwestern University
 2000-2001 Chair, Quality Assurance and Patient Satisfaction Committee, Emergency Medicine, Northwestern Memorial Hospital
 2001- Attending Physician, Evanston Northwestern Healthcare, Evanston, IL
 2002- Director Medical Simulation Laboratory, Evanston Northwestern Healthcare, Evanston, IL
 2004- Medical Advisor, Clinical Skills Evaluation Center, Educational Commission for Foreign Medical Graduates, Chicago IL
 2006- Director, McGaw Northwestern Simulation Network

Other Experience and Professional Memberships

1996- American College of Emergency Physicians (ACEP)
 1996- Society for Academic Emergency Medicine (SAEM)
 2002-2003 President, SAEM Web Educators Interest Group,
 2002-2004 Alternate Councilor ACEP Section on Informatics Society
 2003-2006 President, Simulation Interest Group Society for Academic Emergency Medicine (SAEM)
 2003- Executive Committee, Editorial Board, Simulation Interest Group
 2004-2005 Member, SAEM Task Force on Web Development 2004
 2004-2007 Councilor, ACEP Section on Informatics
 2007- American Board of Emergency Medicine Oral Board Examiner

Honors

2000 Thomas R. Mulroy Award: "For Excellence in Emergency Medicine"
 2004 Best Educational Conference Award, Northwestern University Emergency Medicine Residency
 2005 Teaching Award: Northwestern University Emergency Medicine Residency
 2006 Teaching Award: Northwestern University Emergency Medicine Residency,

- B. Selected peer-reviewed publications (in chronological order).** Do not include publications submitted or in preparation. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.

Laparoscopic cholecystectomy in cirrhotic patients. Sleeman D, Namias N, Levi D, Ward FC, Vozenilek J, Silva R, Levi JU, Reddy R, Ginzburg E, Livingstone A. J Am Coll Surg. 1998 Oct;187(4):400-3.

Acid Base Emergencies. Vozenilek, John, Critical Decisions in Emergency Medicine, ACEP Publications, September, 2000

Computerized Physician Order Entry And Online Decision Support, Handler, Jonathan A., Feied, Craig F., Vozenilek, John et al Academic Emergency Medicine, Vol. 11, 2004

Developing Consensus In Emergency Medicine Information Technology. Handler, Jonathan A., Feied, Craig F., Vozenilek, John, Barthell, Edward N, Davidson, Steven J., Gillam, Michael, Biros, Michelle, Adams, James G. MD Academic Emergency Medicine, Vol. 11, 2004

See one, do one, teach one: Findings of the consensus panel on advanced technology in medical education Vozenilek, John J. Huff, Stephen Reznek, Martin, Gordon, James. Academic Emergency Medicine, Vol. 11, 2004 1149-1154

Addressing the Systems-Based Practice Core Competency: A Simulation-Based Curriculum. Wang, E. and Vozenilek, J. Academic Emergency Medicine 2005 12: 1191-1194

Simulation-Based Morbidity and mortality conference: New technologies augmenting traditional case-based presentations. John Vozenilek, MD, Ernest Wang, MD, Morris Kharasch, MD, Britney Anderson, MD, Amit Kalaria, MD. Academic Emergency Medicine 2006 13: 48-53

An Innovative and Inexpensive Model for Teaching Cricothyrotomy. Wang, Ernest E. MD; Vozenilek, John A. MD; Flaherty, John MD; Kharasch, Morris MD; Aitchison, Pam RN; Berg, Abra. Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare. 2(1):25-29, Spring 2007.

The Use of Simulation in Emergency Medicine: A Research Agenda. Bond, William F., Lammers, Richard L., Spillane, Linda L., Smith-Coggins, Rebecca, Fernandez, Rosemarie, Reznek, Martin A., Vozenilek, John A., Gordon, James A., on Behalf of the Society for Academic Emergency Medicine Simulation Task Force, Acad Emerg Med 2007 14: 353-363

- C. Research Support.** List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Ongoing Research Support

RFA-HS-07-007 AHRQ

Using IT for Patient-Centered Communication and Decision Making about Medications.

Description: Utilizing an electronic medical record system this project will create opportunities for clinician-patient medication reconciliation and communications.

Role: SubContract PI

5 U18 HS016640-02 AHRQ

Simulation-Based Training Program to Augment Electronic Medical Record (EMR) Based Hand-off Tool

Description: This project seeks to reduce communication errors during patient hand-offs in the emergency department by implementing a patient-specific checklist based on an electronic medical record, and by testing the effect of companion simulation-based training.

Role: Principle Investigator

1 H34MC04373-01-00: Department of Health and Human Services Health Resources and Services Administration [HRSA] EMSC Targeted Issue Grants Development and Validation of a Simulator-Based Emergency Medicine Curriculum for Emergency Care Providers

Description: Creation of a Simulation-based program for training and evaluation of Emergency Physicians engaged in the care of pediatric patients.

Role: Co-Investigator

Completed Research Support

Grant Number: 6 T01HP01401-01-01 PI: Timothy B. Erickson

Department of Health and Human Services Health Resources and Service Administration (HRSA)

Project Title: Bioterrorism Training and Curriculum Development Program

Role: Bioterrorism Training: Consultant

Illinois Department of Public Health Grant for Public Safety Simulation Training Program to develop a second high fidelity training site and assess its impact, 2003

Role: Principle Investigator:

Evanston Northwestern Healthcare Physicians Group Research Grant to establish and assess the impact of the Center for Simulation Technology Academics and Research, 2003

Role: Principle Investigator:

BIOGRAPHICAL SKETCH

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Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Wang, Ernest E		Assistant Professor, Emergency Medicine	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Stanford University, Stanford, CA	BA	1987-1991	Human Biology
Northwestern University, Chicago, IL	MD	1991-1995	Medicine

A. Positions and Honors.**Positions and Employment**

1995-1999 Medical Residency, Emergency Medicine, Northwestern University, Chicago, IL
 1998-1999 Chief Resident, Northwestern University Emergency Medicine Program
 1999- Attending Physician, Evanston Northwestern Healthcare, Evanston, IL
 2003- Associate Residency Director, Emergency Medicine Northwestern University
 2004- Associate Director, Co-Sponsorship Transitional Medicine Residency Program Evanston Hospital

Other Experience and Professional Memberships

1996- American College of Emergency Physicians (ACEP)
 1996- Society for Academic Emergency Medicine (SAEM)
 2003- Undergraduate Medical Education Committee, (SAEM)
 2003- Peer Reviewer, Academic Emergency Medicine Journal
 2005- Sub-Committee Chair, SAEM Diversity in Emergency Medicine
 2006- Chair, Simulation Interest Group, Society for Academic Emergency Medicine (SAEM)
 2007- Invited Reviewer for the Association of American Medical College's MedEdPORTAL project: www.aamc.org/mededportal
 2007- American Board of Emergency Medicine (ABEM) In-training Examination Item Writer

Honors

1999 Thomas R. Mulroy Award: "For Excellence in Emergency Medicine"
 2004 Best Lecture, Northwestern University Emergency Medicine Residency
 2005 Best Educational Conference Award, Northwestern University Emergency Medicine Residency
 2006 Teaching Award, Northwestern University Emergency Medicine Residency

B. Selected peer-reviewed publications (in chronological order).**I. Original Peer-reviewed research:**

Kingery WS, Castellote J, **Wang E**. A loose ligature-induced mononeuropathy produces hyperalgesias mediated by both the injured sciatic nerve and the adjacent saphenous nerve. *Pain*. 1993;55:297-304.

Handler JA, Gillam M, **Wang EE**, Feied CF, Yarnold PR, Bose S, Smith, MS. Computers and connectivity in Illinois emergency departments. *Acad Emerg Med*. 1999 Dec;6(12):1249-54.

Wang, E. and Vozenilek, J. Addressing the Systems-Based Practice Core Competency: A Simulation-Based Curriculum. *Academic Emergency Medicine* 2005 12: 1191-1194

John Vozenilek, MD, **Ernest Wang, MD**, Morris Kharasch, MD, Britney Anderson, MD, Amit Kalaria, MD. Simulation-Based Morbidity and mortality conference: New technologies augmenting traditional case-based presentations. *Academic Emergency Medicine* 2006 13: 48-53

Farrell SE, Pacella C, Egan D, Hogan V, **Wang E**, Bhatia K, Hobgood, CD. on behalf of the Society for Academic Emergency Medicine, Undergraduate Education Committee. Resident-as-teacher: A suggested curriculum for emergency medicine. *Acad. Emerg. Med*. 2006;13:677-679.

Wang EE, Mahajan N, Wills B, Leikin J. Successful treatment of potentially fatal heavy metal poisonings. *J Emerg Med*. 2007. Apr;32(3):289-94. Epub 2007 Feb 5.

Wang, Ernest E. MD; Vozenilek, John A. MD; Flaherty, John MD; Kharasch, Morris MD; Aitchison, Pam RN; Berg, Abra. An Innovative and Inexpensive Model for Teaching Cricothyrotomy. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare*. 2(1):25-29, Spring 2007.

Ernest Wang, John Vozenilek, Chris Pettineo. The Emergent Cricothyrotomy. *Acad Emerg Med*. 2007. Accepted for publication.

Matthew Levine, **Ernest Wang**, John Vozenilek, Chris Pettineo. The Emergent Tube Thoracostomy. *Acad Emerg Med*. 2007. Accepted for publication.

C. Research Support

Ongoing Research Support

Highland Park Foundation Grant, Impact of Simulation on Community and Pre-Hospital Care Training

1 H34MC04373-01-00 Co-Investigator: Department of Health and Human Services Health Resources and Services Administration [HRSA] EMSC Targeted Issue Grants Development and Validation of a Simulator-Based Emergency Medicine Curriculum for Emergency Care Providers

Completed Research Support

Co-Investigator: Illinois Department of Public Health Grant for Public Safety Simulation Training Program to develop a second high fidelity training site and assess its impact, 2003

Co-Investigator: Evanston Northwestern Healthcare Physicians Group Research Grant to establish and assess the impact of the Center for Simulation Technology Academics and Research, 2003

Principal Investigator/Program Director (Last, First, Middle): **Vozenilek, John A**