

Samuel M. Keim
5295 North Camino Real
Tucson, Arizona 85718

Chronology of Education

Undergraduate

- 1976 - 1980 B.S., Microbiology and Chemistry
Northern Arizona University
- 1/1981 – 5/1981 Certificate, Spanish Immersion Program
Northern Arizona University
- 1981 - 1985 M.D.
The University of Arizona College of Medicine

Graduate

- 1985 - 1988 Internship and Residency, Emergency Medicine
Los Angeles County, King/Drew Medical Center
- 2002 - 2004 Post-doctoral Certificate in Clinical Research
Arizona Clinical Research Scholars Program
The University of Arizona College of Public Health
NIH K30HL004519-04
- 2004 Certificate - Instructor Workshop, Evidence Based Medicine
McMaster University, Hamilton Ontario
- 2007 M.S., Clinical Epidemiology
Mel and Enid Zuckerman College of Public Health
The University of Arizona

Chronology of Employment

- 1988 – 1989 Attending Physician
Kino Hospital Emergency Department
Tucson, Arizona
- 1989 - 1994 Assistant Professor of Clinical Surgery
Division of Emergency Medicine, Department of Surgery
The University of Arizona College of Medicine
- 1994 - 1999 Associate Professor of Clinical Surgery
Division of Emergency Medicine, Department of Surgery
The University of Arizona College of Medicine
- 1999 - 2001 Associate Professor of Surgery (tenure eligible)

Division of Emergency Medicine, Department of Surgery
The University of Arizona College of Medicine

2001 – 2006 Associate Professor of Emergency Medicine (tenure eligible)
Department of Emergency Medicine
The University of Arizona College of Medicine

2006 - 2009 Associate Professor with Tenure
Department of Emergency Medicine
The University of Arizona College of Medicine

2009 - Professor with Tenure
Department of Emergency Medicine
The University of Arizona College of Medicine

Board Certifications

1991 Certified Diplomat (#880409) - American Board of Emergency
Medicine
2001 Recertification (through 2010) – American Board of Emergency
Medicine
2010 Recertification (through 2020) – American Board of Emergency
Medicine

Honors and Awards

1988 Residency Graduate Awards: “Best Resident” and “Betty Harris’
award for most caring physician” Los Angeles County, King/Drew
Medical Center
1993 Fellow (FACEP) – American College of Emergency Physicians
1998 Oral Examiner appointment – American Board of Emergency
Medicine
1999 Faculty of the Year, Emergency Medicine Residency
2001 Oral Case Reviewer appointment – American Board of Emergency
Medicine
2002 Decade of Service Merit Recognition, Council of Emergency
Medicine Residency Directors
2003 Board of Directors’ Outstanding Contribution Award, Council of
Emergency Medicine Residency Directors
2004 Virginia Furrow Innovations in Medical Education, College of
Medicine
2005 The University of Arizona Alumni Association Professional
Achievement Award
2005 College of Medicine Alumnus of the Year Award

2006	Residency Review Committee appointment by AMA Board of Trustees, Emergency Medicine - Accreditation Council Graduate Medical Education
2007	Clinical Scholar Circle Award – Arizona Clinical and Translational Research Education Consortium
2009	American Board of Emergency Medicine – Item writer appointment
2010	Distinguished Chair of Academic Emergency Medicine, Department of Emergency Medicine
2010, 2011	Best Doctors in America
2010	University of Arizona Leadership Institute

Service/Outreach

Local/state service and outreach (last 5 years or current rank)

Faculty Director, UA Medical Student CPR-CCR Community Outreach. Developed and supervise medical student cardiopulmonary-cardio cerebral resuscitation teaching and outreach in Tucson and Phoenix; 1999 -

Arizona Chapter, American College of Emergency Physicians; 1999 -

National/international service and outreach

National Council of Emergency Medicine Residency Directors (CORD)

Member, 1990-
 Board of Directors, 1999-2003
 President-Elect, 1999
 President, 1999-2001
 Past-President, 2001-2003

CORD National Committees:

CORD Representative to Core Content Task Force, 1999
 CORD Representative to Model Curriculum Task Force, 1999
 Chair, Standardized Letter of Recommendation, 1999 - 2011
 CORD Representative to Scope of Training Task Force, 1999-2001,
 CORD Test Bank, 1999-2003
 CORD Board liaison to Program Committee, 1999-2003
 CORD Nominating Committee, 2007

American Board of Emergency Medicine

Oral Examiner #510, 1999-
 Oral Case Reviewer, 2002-2004
 Representative to ABEM-ABIM Critical Care Task Force 2008-2009
 Item writer ConCert Examination, 2010 -

American Council of Graduate Medical Education

Member, Residency Review Committee Emergency Medicine 2008-2013
RRC-EM representative to ABEM Model of EM Task Force 2009, 2011
RRC-EM representative to Sports Medicine Program Requirements
RRC-EM representative to EMS subspecialty Program Requirements
RRC-EM Duty Hours Task Force

Society for Academic Emergency Medicine

Evidence Based Medicine Interest Group, 2002-
Member, 1990-
Faculty Development Task Force, 2008-2009

American College of Emergency Physicians

Member, 1988-

American Academy of Emergency Medicine

Member, 2005-

American Medical Association

Member, 2003-
Appointed AMA representative to RRC-EM, 2008-

Arizona Health Care Cost Containment

Chair, Clinical Decision Support – AHCCCS Transformation Grant
2007-2009

Second Mediterranean Congress on Emergency Medicine, Barcelona Spain

Educational Track Planning Committee, Abstract reviewer, 2003

Third Mediterranean Congress on Emergency Medicine, Nice France

Core Track Moderator and Chair, Abstract reviewer, 2005

Fifth Mediterranean Congress on Emergency Medicine, Valencia Spain

Core Track Speaker, Abstract reviewer, 2009

Tuscan Emergency Medicine Initiative, oral examiner for certifications of emergency
medicine specialists in Florence, Italy/

Harvard-Beth Israel Medical Center contract with Tuscany Ministry of Health, June 5 –
12, 2005

Visiting Professor – Stanford University, Department of Emergency Medicine, 2007

Departmental service and committees

1991 – 2011 Residency Program Director
1999 –2011 Associate Head, Academic Affairs
1999 – Chair, Academic Affairs Council

1991 – Executive Leadership Committee
 1991 –2010 Chair, Graduate Medical Education Committee
 1999 – Operations Committee, Research Council, Clinical Affairs Council
 2005 - 2010 Co-Director, Emergency Medicine – Pediatric Residency
 2006 – Charter member, Arizona Emergency Medicine Research Center
 2007 –2010 Vice Head
 2008- 2009 Academic review committee (5-year UA review)
 2011- 2012 Interim Head, Department of Emergency Medicine
 2012- Head, Department of Emergency Medicine

College service and committees

1991 – 2011 Graduate Medical Education Committee
 2001 – 2003 Department chair search committee (EM, app by Dean)
 2003 – 2007 Curriculum Committee (app by Dean)
 2004 – 2006 LCME 2006 Review – Education Team (app by Dean)
 2004 – 2006 Arizona Med Curriculum Reform Learning Team (app by Dean)
 2005 – 2011 Academic Computing Working Group – (app by Dean)
 2006 – Director, Az Med Evidence Based Decision Making Thread (app by Dean)
 2006 - 2007 Department Chair Review Committee, Pediatrics (Ghishan) (app by Dean)
 2007 - 2010 Faculty Affairs Council
 2007 –2008 Chair, Department Chair Review Committee, Emerg Medicine (Meislin)
 2008 - 2009 Academic Program Review Committee, Emerg Medicine
 2010 - 2011 Promotion and Tenure Committee (app by Dean)
 2011 - Faculty Practice Committee (app by Dean)
 2011- Council of Department Heads and Center Directors
 2011 Associate Dean for GME Search Committee (app by Dean)
 2012- Practice Plan Executive Search Committee (app by Dean)
 2012- Practice Plan Oversight Board (app by Dean)

Other service and committees

Internal

Hospital Committees – University Medical Center

1999 –2009 Physician Wellbeing Committee
 2005 - 2011 Medical Staff Appeals Committee
 2008 - Physician Champion Engagement – Studer Group

External

1999 – Reviewer for *Academic Emergency Medicine*, *Annals of Emergency Medicine*, *Journal of Emergency Medicine*, *Journal of the American Public Health Association*
 2003 – Medical Editor, *Web MD – eMedicine*; www.emedicine.com
 2005 – Section Editor, Evidence Based Medicine, *Journal of Emergency Medicine*

2007 – Executive Committee, Arizona Clinical and Translational Research
Training Program
Mel and Enid Zuckerman College of Public Health

Publications/Creative Activity (Published or Accepted)

Books (scholarly books and monographs, authored or edited, conference proceedings):

Keim SM, ed; *Emergency Medicine On Call*; McGraw-Hill; New York, NY; 2004. [A comprehensive physician guide to the initial evaluation and treatment of over 120 of the most common problems seen in the emergency department. Problem-based format; 720 pages, ISBN: 0071388796]

Keim SM; *Heat Deaths Among Undocumented US-Mexico Border Crossers in Pima County, Arizona*; Thesis accepted by the Faculty of the College of Public Health in partial fulfillment of the requirements for the degree of Master of Science, Graduate College, The University of Arizona; 2007. United States Copyright TX 6-533-506.

Chapters (chapters in scholarly books and monographs):

1. **Keim SM**; Psychiatric Emergencies; pp 1066-1073; in Reisdorff EJ, Roberts MR, Wiegenstein JG (eds); *Pediatric Emergency Medicine*; WB Saunders; Philadelphia, Pennsylvania; 1992.
2. **Keim SM**, Meislin HW; Miscellaneous Cultures; pp 85-88; in *ACEP Cost Containment Manual*; American College of Emergency Physicians; Dallas, Texas; 1993.
3. **Keim SM**, Loew M; Drowning and Near-Drowning; pp 536-539; in Green HL, Johnson W, Lemke D (eds); *Decision Making in Medicine, 2nd ed*; Mosby Yearbooks; St. Louis, Missouri; 1998.
4. **Keim SM**, Ahlquist T; Vaginal Infections; pp 1190-1191; in Rosen P, Barkin RM, Hayden SR, Schaider J, Wolfe R (eds); *The 5-Minute Emergency Medicine Consult*; Lippincott, Williams and Wilkins; New York, New York; 1999.
5. **Keim SM**, Davis V; Complications of Cardiac Transplantation; pp 174-175; in Rosen P, Barkin RM; Hayden SR, Schaider J, Wolfe R (eds); *The 5-Minute Emergency Medicine Consult*; Lippincott, Williams and Wilkins; New York, New York; 1999.
6. Meislin HW, **Keim SM**; Abscess incision and drainage; pp 222-225; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.

7. Meislin HW, **Keim SM**; Fish hook removal; pp 254-255; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.
8. Meislin HW, **Keim SM**; Nail Removal; pp 252-253; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.
9. **Keim SM**; Meislin HW; Ring Removal; pp 248-250; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.
10. **Keim SM**, Meislin HW; Paronychia Drainage; pp 246-247; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.
11. **Keim SM**, Meislin HW; Felon Drainage; pp 244-245; in Rosen P, Chan TC, et al (eds); *Atlas of Emergency Procedures*; Mosby; St. Louis, Missouri; 2001.
12. **Keim SM**, Sanders AB; Geriatric Emergency Department Use and Care; pp 1-3; In Meldon S; Ma OJ, Woolard R (eds); *Geriatric Emergency Medicine*; McGraw-Hill; New York, New York, 2003.
13. Hocheder S, **Keim SM**; Syncope; pp 1092-1093; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult, 2nd Edition*; Jeffrey J Schaider, Stephen R Hayden, Richard E Wolfe, Roger M Barkin, Peter Rosen (eds); Lippincott Williams & Wilkins, Philadelphia, Pennsylvania; 2003.
14. Vanlandingham B, **Keim SM**; Complications of Cardiac Transplantation; pp 186-187; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult, 2nd Edition*; Jeffrey J Schaider, Stephen R Hayden, Richard E Wolfe, Roger M Barkin, Peter Rosen (eds); Lippincott Williams & Wilkins, Philadelphia, Pennsylvania; 2003.
15. **Keim SM**; Thoracentesis; pp 471-473; in *Emergency Medicine On Call*; McGraw-Hill; New York, New York; 2004.
16. **Keim SM**; Syncope; pp 200-202; In *Emergency Medicine On Call*; McGraw-Hill; New York, New York; 2004.
17. **Keim SM**, Baldwin A; Syncope; pp 1084-1085; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult, 3rd Edition*; Peter Rosen, Roger M. Barkin, Stephen R. Hayden, Jeffrey J. Schaider, Richard Wolfe (eds); Lippincott Williams & Wilkins; Philadelphia, Pennsylvania; 2007.
18. Adams B, **Keim SM**; Complications of Cardiac Transplantation; pp 186-187; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult, 3rd Edition*; Peter Rosen, Roger M. Barkin, Stephen R. Hayden, Jeffrey J. Schaider, Richard Wolfe (eds); Lippincott Williams & Wilkins; Philadelphia, Pennsylvania; 2007.

19. Spaitte DW, Beskind DL, Garrison HG, Maio RF, Lerner EB, Nichol G, **Keim SM**: Evaluating the Effectiveness of EMS systems: Utilizing Outcomes Research Methods to Identify the Impact of Prehospital Care. In Cone DC, O'Conner RE, Fowler R (Eds.): *Emergency Medical Services: Clinical Practice and Systems Oversight*. Vol 3; pp 235-247: National Association of EMS Physicians; 2009.
20. Mosier J, **Keim SM**; Syncope; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult*; 4th Edition; Jeffrey J. Schaidler, Stephen R. Hayden, Richard Wolfe, Roger M. Barkin, Adam Barkin, Philip Shayne, and Peter Rosen,(eds); Lippincott Williams & Wilkins; Philadelphia, Pennsylvania; 2010.
21. Mosier J, **Keim SM**; Complications of Cardiac Transplantation; In *Rosen and Barkin's 5-Minute Emergency Medicine Consult*; 4th Edition; Peter Rosen Jeffrey J. Schaidler, Stephen R. Hayden, Richard Wolfe, Roger M. Barkin, Adam Barkin, Philip Shayne, and Peter Rosen,(eds); Lippincott Williams & Wilkins; Philadelphia, Pennsylvania; 2010.

Journal Articles (refereed/peer-reviewed journal articles, published or accepted final form, conference papers):

Full Length/peer reviewed

1. Knopp R, Adams J, Derse A, Franaszek J, Green C, Iserson K, Kalbfleisch N, **Keim SM**, Sanders A, Schmidt T, Sklar D, Goldfrank L, Hedges J; The HIV-Infected Emergency Health Care Professional; *Annals of Emergency Medicine*; 1991; 20(9):1036-40. PMID:1652220.
2. Sanders A, **Keim SM**, Sklar D, Adams J; Emergency Physicians and the Biomedical Industry; *Annals of Emergency Medicine*; 1992;21(59):556-8. PMID:1570913.
3. Knopp R, Goldfrank L, Derse A, Sanders A, Schmidt T, Sklar D, Iserson K, Adams J, Kalbfleisch N, **Keim SM**; An Ethical Foundation for Health Care; *Annals of Emergency Medicine*; 1992;21(11):1381-7.
4. **Keim SM**, Sanders AB, Witzke DB, Fulginiti JW, Dyne P; Beliefs and Practices of Emergency Medicine Faculty and Residents Regarding Professional Interactions with the Biomedical Industry; *Annals of Emergency Medicine*; 1993;22(10):1576-15981. PMID:8214839.
5. Schmidt T, Iserson K, Freas G, Adams J, Burke T, Derse A, Goldfrank L, Kalbfleisch N, **Keim SM**, Larkin G; Ethics of Emergency Department Triage; *Academic Emergency Medicine*; 1995;2(11):990-5.

6. Holliman CJ, Wuerz RC, Hirshberg AJ, Chapman DM, **Keim SM**, et al; Analysis of factors affecting US Emergency Physician Workforce Projections; *Academic Emergency Medicine*; 1997;4(7):731-5.
7. **Keim SM**, Rein JA, Chisholm C, Dyne P, Hendey GW, et al; A Standardized Letter of Recommendation for Residency Application; *Academic Emergency Medicine*; 1999;6(11):1141-6. PMID:10569387.
8. Davis V, Bey TA, **Keim SM**; Trauma and Thyroid-Induced Tachycardia; *Journal of Emergency Medicine*; 2000;18(2):203-7. PMID:10699523.
9. Barletta JF, Erstad BL, Loew M, **Keim SM**; A Prospective Study of Pain Control in the Emergency Department; *American Journal of Therapeutics*; 2000;7(4):251-6. PMID:11486159.
10. Hockberger RS, Binder LS, Graber MA, Hoffman GL, Perina DG, Schneider SM, Sklar DP, Strauss RW, Viravec DR, Koenig WJ, Augustine JJ, Burdick WP, Henderson WV, Lawrence LL, Levy DB, McCall J, Parnell MA, Shoji KT, Chisholm C, Dronen SC, **Keim SM**, Linder JE, McCabe JB, Martin ML, Moorhead JC, Mudge I, Syverud SA, Adsit SK, Ham HP, Munger BS, Radke MW, Reinhart MA, Garcia R, Geist MA, Golden KG, LaDuca A, Orr NA, Sulton LD, Thorsen LM; The Model of the Clinical Practice of Emergency Medicine; *Academic Emergency Medicine*; 2001;8(6):660-681.
11. **Keim SM** Anderson KA, Siegel E, Spaite DW, Valenzuela TD; Factors Associated with CPR Certification Within An Elderly Community; *Resuscitation*; 2001;51(3):267-272. PMID:11738777.
12. **Keim SM**, Erstad BL, Sakles JC, Davis V; The Use of Etomidate for Procedural Sedation in the Emergency Department; *Pharmacotherapy*; 2002;2(5):586-592. PMID:12013357.
13. **Keim SM**, Guisto J, Sullivan JB; Environmental Thermal Stress; *Annals of Agricultural and Environmental Medicine*; 2002;9(1):1-15. PMID:12088391.
14. **Keim SM**, Mays M, Grant D; Interactions Between Emergency Medicine Programs and the Pharmaceutical Industry; *Academic Emergency Medicine*; 2004;11:19-26. PMID:14709424.
15. **Keim SM**, Spaite DW, Maio R, Garrison HG, Gregor MA, et al; Risk Adjustment and Outcome Measures for Out-of-Hospital Respiratory Distress; *Academic Emergency Medicine*; 2004;11(10):1074-1081. PMID:15466151.
16. **Keim SM**, Spaite DW, Maio R, Garrison HG, Gregor MA, et al; Establishing the Scope and Methodological Approach to Pre-Hospital Outcomes and

Effectiveness Research; *Academic Emergency Medicine*; 2004;11(10):1067-1073. PMID:15466150.

17. **Keim SM**, Mays M, Parks B, Pytlak E, Harris R, Kent M. Estimating the Incidence of Heat-Related Deaths Among Immigrants in Pima County, Arizona; *Journal of Immigrant and Minority Health*; 2006;8(2):185-191. PMID:16649133
18. **Keim SM**, Mays MZ, Williams JM, Serido J, Harris RB. Measuring Wellness in Resident Physicians; *Medical Teacher*; 2006;28(4):370-4. PMID:16807179.
19. Grant D, **Keim SM**, Telfer J; Teaching Bayesian Analysis to Residents; *Journal of Emergency Medicine*; 2006;31(4):437-440. PMID:17046492.
20. Howse D, Bracke P, **Keim SM**; Technology Mediator: A New Role for the Reference Librarian?; *Biomedical Digital Libraries*; 2006;3:10. PMID:17040566.
21. **Keim SM**, Mays M, Parks B, Pytlak E, Harris RM, Kent MA. Heat Fatalities in Pima County, Arizona; *Health and Place*; 2007;13(1):288-292. PMID:16649133.
22. Worster A, **Keim SM**; Vadera R, Rosen P. Do Patients with Acute Myocardial Infarction Benefit from Treatment with Clopidogrel?; *Journal of Emergency Medicine*; 2008; 34(4):479-83. PMID:18226876
23. Bracke P, Howse D, **Keim SM**; Evidence-based Medicine Search: A Customizable Federated Search Engine; *Journal Medical Librarian Association*; 2008;96(2):108-113. PMID:18379665.
24. Sakles J, Rogers R, **Keim SM**; Optical and Video Laryngoscopes for Emergency Airway Management; *Internal Emergency Medicine*; 2008; 3(2):139-43. PMID:18274712.
25. Silva G, Guerra S, **Keim SM**, Barbee R, Sherrill D; Longitudinal Decline of Diffusing Capacity of the Lung for Carbon Monoxide (DL, CO) in Community Subjects with the PiMZ {alpha}1-Antitrypsin Phenotype; *Chest*; 2008; 133(5):1095-100. PMID:18263681.
26. Sakles JC, Deacon JM, Bair AE, **Keim SM**, Panacek EA; Delayed Complication of Emergency Airway Management: A Study of 553 Emergency Department Intubations; *Western Journal of Emergency Medicine*; 2008;9:190-194. PMID:19561743.
27. **Keim SM**, Howse D, Bracke P, Mendoza K; Promoting Evidence Based Medicine in Preclinical Medical Students via a Federated Literature Search Tool; *Medical Teacher*; 2008; 30: 880–884. PMID:18821125.

28. Carpenter CR, **Keim SM**, Crossley J, Perry JJ: Post-TIA Early Stroke Risk Stratification. The ABCD2 Prognostic Aid; *Journal of Emergency Medicine*; J Emerg Med. 2009;36(2):194-8. PMID:18996671.
29. Carpenter CR, **Keim SM**, Seupaul RA, Pines JM; Differentiating Low-Risk and No-Risk Pulmonary Embolism Patients: The PERC Score; *Journal of Emergency Medicine*; 2009;36(3):317-22. PMID:19097732
30. Mallon WK, **Keim SM**, Shoenberger JM, Walls RM; Rocuronium versus Succinylcholine in the Emergency Department – A Critical Appraisal; *Journal of Emergency Medicine*; 2009;37(2):183-8. PMID:19097730.
31. **Keim SM**, Reiser F, Sheety S, Ranger-Moore J; Wilderness Rescue and Border Enforcement along the Arizona Mexico Border - The Border Patrol Search, Trauma and Rescue Unit; *Wilderness and Environmental Medicine*; 2009; 20: 39-42. PMID:19364185.
32. Carpenter CR, **Keim SM**, Upadhye S, Nguyen HB; Best Evidence in Emergency Medicine Investigator Group; Risk Stratification of the Potentially Septic Patient in the Emergency Department: The Mortality in the Emergency Department Sepsis (MEDS) Score. *Journal of Emergency Medicine*; 2009;37(3):319-27. PMID:19427752.
33. Worster A, **Keim SM**, Carpenter CR, Adeoye O; Best Evidence in Emergency Medicine (BEEM) Group; Does early intensive lowering of blood pressure reduce hematoma volume and improve clinical outcome after acute cerebral hemorrhage? *Journal of Emergency Medicine*; 2009;37(4):433-8. PMID:19545967.
34. Worster A, **Keim SM**, Sahsi R; The Best Evidence in Emergency Medicine (BEEM) Group, Pancioli AM; Do Either Corticosteroids or Antiviral Agents Reduce the Risk of Long-Term Facial Paresis in Patients with New-onset Bell's Palsy? *Journal of Emergency Medicine*; 2009;38(4):518-23. PMID:19846267.
35. Sherbino J, **Keim SM**, Davis DP, Best Evidence in Emergency Medicine (BEEM) Group; Clinical Decision Rules for Termination of Resuscitation in Out-of-Hospital Cardiac Arrest. *Journal of Emergency Medicine*; 2010;38(1):80-6. PMID:19800755.
36. Deluca L, McEwen M; **Keim SM**; Risk Perception of Undocumented Male Border Crossers – A Qualitative Analysis; *Journal Immigrant and Minority Health*; 2010;12(1):113-23. PMID:18850270.
37. Carpenter CR, **Keim SM**, Milne WK, Meurer WJ, Barsan WG, Best Evidence in Emergency Medicine Investigator Group; Thrombolytic Therapy for Acute

Ischemic Stroke Beyond Three Hours. *Journal of Emergency Medicine*. 2011 Jan;40(1):82-92. PMID:20576390.

38. Perina DG, Beeson MS, Char DM, Counselman FL, **Keim SM**, McGee DL, Rosen CL, Sokolove PE, Tantama SS. The 2007 Model of the Clinical Practice of Emergency Medicine: The 2009 Update. *Academic Emergency Medicine*. 2011 Mar;18(3):e8-e26.PMID:21255180.

Perina DG, Beeson MS, Char DM, Counselman FL, **Keim SM**, McGee DL, Rosen CL, Sokolove PE, Tantama SS. The 2007 Model of the Clinical Practice of Emergency Medicine: The 2009 Update. *Annals of Emergency Medicine*. 2011 Mar;57(3):e1-15. PMID:21272957.
39. Patanwala AE, **Keim SM**, Erstad BL. Intravenous Opioids for Severe Pain in the Emergency Department. *Annals of Pharmacotherapy*; 2010 Nov;44(11):1800-9. PMID:20978218.
40. Beskind D, **Keim SM**, Spaite DW, Garrison HG, Lerner EB, Maio RF. Emergency Medical Services Outcomes Project (EMSOP): Risk Adjustment Measures and Outcome Measures for Prehospital Trauma Research. *Academic Emergency Medicine*; 2011; Sep;18(9):988-1000. PMID:21906205.
41. Sakles JC, Mosier JM, Chiu S, **Keim SM**. Tracheal Intubation in the Emergency Department: A Comparison of GlideScope(®) Video Laryngoscopy to Direct Laryngoscopy in 822 Intubations. *Journal of Emergency Medicine*; 2011; Jun 18. [Epub ahead of print] PMID:21689899
42. Stoneking L, Denninghoff K, Deluca L, **Keim SM**, Munger B. Sepsis bundles and compliance with clinical guidelines. *J Intensive Care Med*; 2011; May-Jun;26(3):172-82. PMID:21670090
43. Carpenter CR, **Keim SM**, Worster A, Rosen P; BEEM (Best Evidence in Emergency Medicine). Brain Natriuretic Peptide in the Evaluation of Emergency Department Dyspnea: Is There a Role? *Journal of Emergency Medicine*; 2012 Feb;42(2):197-205. PMID:22123173.
44. Walls RM, Brown CA 3rd, Bair AE, Pallin DJ, Chiang V, Sweeney T, Brozen R, Sobel R, Broderick KA, Scott J, Manfredi R, Promes SB, Pollack C, Brown D, Binder D, Setnick G, Manning P, Pacheco-Fowler V, Hebel G, Warden C, Wong E, Gutman M, Barsky C, Christenson J, Schreiber D, Terndrup T, **Keim S**, Bair A, Sackles J, Hayden SR, Sakles J, Carelton S, Danzl D, Vissers R, Levitan R, Hoekstra J.. Emergency airway management: a multi-center report of 8937 emergency department intubations. *J Emerg Med*. 2011 Oct;41(4):347-54. PMID:20434289.

45. Ruttan T, Stolz U, Jackson-Vance S, Parks B, **Keim SM**. Validation of Temperature Prediction Model for Heat Deaths in Undocumented Border Crossers. *Journal of Immigrant and Minority Health*; 2012 Apr 18. [Epub ahead of print] PMID: 22527742.
46. Perina DG, Brunett CP, Caro DA, Char DM, Chisholm CD, Counselman FL, Heidt J, **Keim SM**, John Ma O, 2011 EM Model Review Task Force, The 2011 Model of the Clinical Practice of Emergency Medicine. *Academic Emergency Medicine*. 2012; Jul;19(7):e19-40. PMID: 22651693.

Other Peer-reviewed

1. Beskind D, **Keim SM**; Choreoathetotic movement disorder in a boy with Mycoplasma pneumoniae encephalitis; *Annals of Emergency Medicine*; 1994; 23(6):1375-8.
2. Fooe CB, **Keim SM**; Emergency Diagnostic Testing in the Managed Care Environment; *Topics in Emergency Medicine*; 1996;18(4):11-18.
3. Wagner R; **Keim SM**; Plant Poisoning, Alkaloids – Tropane; *eMedicine Journal*; 2007. Available at: www.emedicine.com
4. **Keim SM**; Smith D; Broken Jaw; *eMedicine Journal*; 2007. Available at: www.emedicine.com
5. **Keim SM**; Connolly D; Broken Leg; *eMedicine Journal*; 2010. Available at www.emedicine.com
6. Hanson K; **Keim SM**; Drug Allergy; *eMedicine Journal*; 2010. Available at: www.emedicine.com
7. **Keim SM**; Miller B; Meningitis, Children; *eMedicine Journal*; 2010. Available at: www.emedicine.com
8. **Keim SM**; Hocheder S; Shoulder Separation; *eMedicine Journal* ; 2010. Available at: www.emedicine.com
9. **Keim SM**; Van Moorlehem E; Spider Bite, Brown recluse; *eMedicine Journal*; 2010. Available at: www.emedicine.com
10. **Keim SM**; Kent M; Nausea and Vomiting; *eMedicine Journal* ; 2010. Available at: www.emedicine.com
11. Tiongson J, **Keim SM**, Rosen P; Management of Patients Presenting with Symptoms of Vulvovaginitis; *Journal of Urgent Care Medicine*; 2007;1(8):11-18.

12. Dyer B, **Keim SM**, Rosen P; Managing Heat Illness in Urgent Care; *Journal of Urgent Care Medicine*; 2007;1(10):13-19.
13. Smolensky AR, **Keim SM**, Rosen P; Assessment and Management of Common Hand Infections; *Journal of Urgent Care Medicine*; 2007;2(2): 11-18.
14. Arnone, N, Keim SM, Rosen P; *Journal of Urgent Care Medicine*; 2008; 3(1):13-20.
15. Josephy C, **Keim SM**, Rosen P; Common Head Lacerations; *Journal of Urgent Care Medicine*; in press.
16. West C, **Keim SM**, Rosen P; Management of Constipation; *Journal of Urgent Care Medicine*; 2009; 3(5): 9-14.
17. **Keim SM**; Wilderness Images, BORSTAR agents; *Wilderness and Environmental Medicine*; 2009; 20, 80.

Meeting Abstracts (conference paper abstracts and poster abstracts):

1. **Keim SM**; Beliefs and Practices of Emergency Medicine Faculty and Residents Regarding Professional Interactions With the Biomedical Industry; Society for Academic Emergency Medicine Conference; Toronto, Canada; May 1992.
2. Anderson KA, **Keim SM**; CPR Certification within an Exclusive Elderly Community; Society for Academic Emergency Medicine; San Francisco, California; May 22, 2000.
3. Sakles JC, **Keim SM**; Using the Bispectral Index (BIS) to Monitor the Level of Sedation during Deep Procedural Sedation in the Emergency Department with Propofol; International Conference on Emergency Medicine; Stressa, Italy; September 2001.
4. Anderson KA, **Keim SM**; Factors associated with CPR certification within an elderly community; Western Regional SAEM Scientific Meeting, Newport Beach, California; April 2001.
5. Sakles JC, **Keim SM**; Using the Bispectral Index (BIS) to Monitor the Level of Sedation During Deep Procedural Sedation in the Emergency Department with Propofol; Society for Academic Emergency Medicine Annual Meeting; St. Louis, Missouri; May 20, 2002.

6. **Keim SM**, Mays M, Parks B, Pytlak E, Kent M; 2002 Heat Deaths in Border Crossers in Pima County, Arizona; 131st Annual American Public Health Association Meeting; San Francisco, California; November 19, 2003.
7. **Keim SM**, Mays M, Grant D, Andreski D; Interactions Between Emergency Medicine Residencies and the Pharmaceutical Industry; Society for Academic Emergency Medicine Annual Meeting; Boston, Massachusetts, May 29, 2003.
8. Parks B, **Keim SM**; Heat-Related Deaths of Undocumented Alien Desert Crossers; Mountain, Desert, and Coastal Forensic Anthropology Annual Conference; Boulder City, Nevada; May 28, 2003.
9. **Keim SM**, Kent M, Parks B, Pytlak E; Heat-illness Deaths in Pima County, Arizona: A Dry Heat?; SAEM Western Regional Research Forum; Scottsdale, Arizona; April 2003.
10. Sakles J, Tolby N, Vanderheyden C, **Keim SM**; Ability of Emergency Medicine Residents to Use Alternative Optical Airway; SAEM Western Regional Research Forum, Scottsdale, Arizona; April 2003.
11. Parks B, Peters E, Porterfield C, Winston D, Karluk D, **Keim SM**; Kent M; Deaths of Undocumented Immigrants in Southern Arizona; American Academy of Forensic Sciences; Dallas, Texas; February 20, 2004.
12. **Keim SM**, Mays MZ, Parks B; Heat-Related Deaths among Immigrants in Southern Arizona; Third Mediterranean Congress on Emergency Medicine; Nice France; September 4, 2005.
13. **Keim SM**, Mays MZ, Harris R; Preliminary Validation of Two Novel Resident Wellness Measures; Society for Academic Emergency Medicine; New York, New York; May 24, 2005.
14. **Keim SM**, Munger B; Information Mastery Integrated Curriculum; Council of Residency Directors Annual Meeting; New Orleans, Louisiana; March 3, 2005.
15. Howse D, Bracke P, **Keim SM**; A Novel Federated EBM Search Engine; 5th Annual Innovations in Medical Education Conference, University of Arizona College Of Medicine; Phoenix, Arizona; April 2006.
16. Mays M, **Keim SM**, Allred K, Jirsak J; Alternative models of calculating risk of heat death among individuals making covert border crossings from Mexico to

Arizona; AMSTAT - Joint Meetings of American Statistical Association, International Biometric Society (ENAR and WNAR), the Institute of Mathematical Statistics (IMS), and the Statistical Society of Canada; Salt Lake City, Utah; July 2007.

17. Silva G, Guerra S, **Keim SM**; Sherrill D; Baldwin C; et al; Association between alpha1-Antitrypsin Phenotype MZ and Diffusing Capacity of the Lung for Carbon Monoxide (DLCO); American Thoracic Society International Conference, San Francisco, California; May 23, 2007.
18. Howse D, Bracke P, **Keim SM**; Integrating a Customized, Federated Search Engine into a Medical School Undergraduate Curriculum; Medical Library Association Annual Meeting; Philadelphia, Pennsylvania; May 21, 2007.
19. Deluca L, **Keim SM**; Risk Perceptions of US-Mexico Border Crossers; Society for Academic Emergency Medicine Western Regional Meeting; Portland, Oregon; March 15, 2007.
20. O'Brien K, Dyer B; Dermon J, **Keim SM**; Case Study of Toxicology Findings of Border Crosser Deaths in Pima County, Arizona; Society for Academic Emergency Medicine Meeting; Washington DC, May 30, 2008.
21. Dyer B, O'Brien K, Dermon J, **Keim SM**; Case Study of Toxicology Findings of Border Crosser Deaths in Pima County, Arizona; Western Regional Society for Academic Emergency Medicine Meeting; Costa Mesa, California; March 29, 2008.
22. Josephy C, Sakles J, **Keim SM**; A Comparison of the Success Rate and Performance Characteristics of Three Different Versions of the GlideScope Video Laryngoscope in 280 Emergency Department Intubations; Society for Academic Emergency Medicine Meeting, New Orleans, May 17, 2009.
23. Mosier JM, **Keim SM**, Sakles JC; Portable Videolaryngoscopy for Emergency Department Intubation: A Comparison of Four Videolaryngoscopes. The Fifth Mediterranean Emergency Medicine Congress, Valencia, Spain, September 14, 2009.
24. Josephy C, **Keim SM**, Sakles JC; A Comparison of the Success Rate and Performance Characteristics of the GlideScope Ranger to the GlideScope Cobalt in Emergency Department Intubations. The Fifth Mediterranean Emergency Medicine Congress, Valencia, Spain, September 14, 2009.
25. Josephy C, Lieb J, Racey J, Stolz U, **Keim SM**; A Weather Prediction Model for Heat deaths in Undocumented Border Crossers; Society for Academic Emergency Medicine Western Regional Research Conference, Sonoma, California March 19-21, 2010.

26. Ruttan T, Jackson-Vance S, Stolz U, **Keim SM**; Economic Factors Associated with Undocumented Border Crossings and Heat Deaths in Arizona; Society for Academic Emergency Medicine Western Regional Research Conference, Sonoma, California March 19-21, 2010.
27. Ruttan T, Jackson-Vance S, Stolz U, **Keim SM**; A Weather Prediction Model for Heat deaths in Undocumented Border Crossers; Society for Academic Emergency Medicine National Scientific Meeting, Phoenix, Arizona June 5, 2010.
28. Panchal A, Stolz U, Denninghoff K, Munger B, **Keim SM**. Increased Mentored Resident Research Through Changes In The Academic And Research Environment Society for Academic Emergency Medicine, Western Regional Meeting, Keystone, Colorado, Feb 26, 2011.
29. Panchal A, Stolz U, Denninghoff K, Munger B, **Keim SM**. Increased Mentored Resident Research Through Changes In The Academic And Research Environment. Society for Academic Emergency Medicine National Meeting, Boston, MA, June 1, 2011.

Other publications (book reviews, commentaries, editorials or other non-refereed scholarly material):

1. **Keim SM**, Rein JA; Standardized vs. Narrative Letters for Residency Applicant Evaluation; *Academic Emergency Medicine*; 1999;6(7):768-9.
2. **Keim SM**; Can Resident Physicians be Profiled?; *Academic Emergency Medicine*; 2000;7(1):72-4.
3. **Keim SM**; CORD Position Statement on Moonlighting; *Academic Emergency Medicine*; 2000;7(8):929.
4. **Keim SM**, Chisholm C; Moonlighting and Emergency Medicine: Raising the Standard; *Academic Emergency Medicine*; 2000;7(8):927-8.
5. McNamara R, **Keim SM**; Emergency Medicine Moonlighting: The Focus Should Be on Patient Safety; *Journal of Emergency Medicine*; 2001;20(3):299-300.
6. Kazzi A, Chisholm C, Hedges J, Joseph R, **Keim SM**, et al; Consensus Recommendations to the Federation of State Medical Boards (FSMB) for Revisions to the FSMB May 1998 Policy Statement on Physician Licensure; *Journal of Emergency Medicine*; 2001;20(3):323-4.
7. Kazzi A, Chisholm C, Hedges J, Joseph R, **Keim SM**, et al; Consensus Recommendations to the Federation of State Medical Boards (FSMB) for

Revisions to the FSMB May 1998 Policy Statement on Physician Licensure; *Academic Emergency Medicine*; 2001;8(4):393-4.

8. Shiflett B, **Keim SM**; An Unlucky Break – risk factors and early warning signs to avoid stress-fractures; *Inside Triathlon*; 17(12):48-50, 2002.
9. Shiflett B, **Keim SM**; The Science of Cool – What you should know about competing in tropical heat; *Inside Triathlon*; 17(10):52-3, 2002.
10. **Keim SM**, Perina DG; Council of Emergency Medicine Residency Directors Position on Interactions Between Emergency Medicine Residencies and Pharmaceutical Industry; *Academic Emergency Medicine*; 2004;11:78.
11. **Keim SM**; *Emergency Medicine On Call*. Author and Chief Editor. *Electronic Version for Handheld Computer/Personal Digital Assistant*; A comprehensive physician guide to the initial evaluation and treatment of over 120 of the most common problems seen in the emergency department. Unique problem-based format; McGraw-Hill; New York, NY; 2004. (ISBN: 0071388796)
12. **Keim SM**; Introduction to the Section of Evidence Based Medicine; *Journal of Emergency Medicine*; 2008; 34(4):477.
13. Mallon WK, Shoenberger JM, **Keim SM**, Walls RM. Response to Letter to the Editor; *J Emerg Med*. 2010 Apr 22. [Epub ahead of print]

Web Page/Site:

1. **Keim SM**; Comprehensive Emergency Medicine Residency Curriculum, Department of Emergency Medicine, The University of Arizona; Three-year competency-based graduate program involving 16 different month-long clinical rotations and 20 hours of discipline-specific didactic presentations per month. Curriculum content spans entire specialty of emergency medicine and includes novel learning and evaluation methods; 1990 - <http://www.ahsc.arizona.edu/emresidn/index.htm>
2. Dronen S, Syverud S, Chisholm C, **Keim SM**, Ling I; National Model Emergency Medicine Curriculum; Society for Academic Emergency Medicine/Council of Residency Directors;1999. <http://www.saem.org/saemdnn/Education/tabid/55/Default.aspx>
3. **Keim SM**; Standardized Letter of Recommendation; Novel medical education curricula for application tool used by nearly all graduate medical education programs and medical student applicants; Annual Updates; 1999 - <http://www.cordem.org/slror.htm>

4. Task Force member to create a comprehensive valid model of the specialty based upon a rigorous practice analysis (first specialty in Medicine to achieve this); Model of the Clinical Practice of Emergency Medicine. 1999.
<http://www.cordem.org/download/practice.pdf>;
5. **Keim SM**; Information Mastery for Emergency Medicine; Three-year integrated curriculum for graduate medical education; Annual updates; 2002 -
<http://www.emergencymed.arizona.edu/research/mastery-curriculum.htm>
6. **Keim SM**; Evidence Based Decision Making; Four-year integrated interdisciplinary undergraduate medical education curricula; Annual updates; 2004 -
<http://www.medicine.arizona.edu/curricularaffairs/CC/EBDM%20Thread%204-07-05.pdf>
7. **Keim SM**, Howse D, Bracke P; Evidence Based Search; Novel federated evidence based medicine search engine; Continuous updates; 2005 -
<http://www.ahsl.arizona.edu/ebmsearch/index.cfm>
8. **Keim SM**; Servicio Meteorológico Predicción y Prevención de Mortalidad (SMPPM). Public mortality-based weather warning for extreme heat. Includes instructional materials for healthcare professionals and laypersons on heat illness; Continuous updates; 2006 -
<http://www.borderrisk.med.arizona.edu/crossingRiskS.html>

Presentations (last 5 years)

Invited National and International

Keim SM; Heat Stroke on the Border; CREST National Conference; Scottsdale, Arizona; June 15, 2006.

Keim SM; Identification of Undocumented Border Crosser Victims; Arizona-Mexico Commission; Scottsdale, Arizona; June 16, 2006.

Keim SM; Heat Death in Border Crossers; Frontiers in Medical Research Forum; Tucson, Arizona; October 3, 2006.

Keim SM; Heat Deaths among US-Mexico Border Crossers; Southwestern EMS Conference; Tucson, Arizona; January 12, 2007

Keim SM; Heat Death along the Border; Stanford University Department of Emergency Medicine Grand Rounds; Stanford, California; April 11, 2007.

Keim SM; So you want to be a program director?; Society for Academic Emergency Medicine Annual Meeting; Chicago, Illinois; May 17, 2007.

Keim SM; EBM Search; Arizona Consortium for the Advancement of Evidence-Based Practice (AZCAEP) Conference; Tucson, Arizona; March 4, 2008

Keim SM; A Weather Prediction Model to Estimate Heat Death Risk; International Migration Conference - No Vale Los Muertos; Tucson, Arizona; March 14, 2008.

Keim SM; Three Views of the Scholarly Requirement; Society for Academic Emergency Medicine Annual Meeting; Washington, District of Columbia; May 30, 2008.

Keim SM; Addressing the Health Effects of Climate Change Conference; National Center for Environmental Health (CDC) and Physicians for Social Responsibility, Tucson, Arizona; November 15, 2008.

Keim SM; Get Real! Letters of Recommendation. American Academy of Emergency Medicine Scientific Assembly; Phoenix, Arizona; March 1, 2009.

Invited Local Seminars and Conferences

University of Arizona Medical School Pre-clinical (Large Group) Annual

Evidence Based Decision Making (EBDM) 101 (2006 - 2011)
EBDM - Study Design 101 (2007- 2011)
EBDM - Clinical Certainty and Probability (2006 - 2011)
EBDM - Measuring Outcomes/Gathering Evidence (2006 - 2011)
EBDM - Therapy 101(2006-2011)
EBDM - Systematic Reviews (2010-2011)
EBDM – Practice Guidelines (2006 - 2011)
EBDM - Introduction to Critical Appraisal Journal Club (2006 - 2011)
EBDM – Diagnostic Testing and Bayes' Theorem (2007-2011)

University of Arizona Medical School EM Senior Clerkship

Monthly didactic (2 hrs each); 1999 –
Six sessions/year/topics vary: Abdominal pain, Chest pain, Headache, Trauma

University of Arizona Medical School Residency conferences Annual

Weekly Emergency Medicine Conferences participant (5 hrs/wk); topics vary.
Monthly Journal Club – director Intern curriculum (2 hrs/month); topics vary.
Introduction to Evidence Based Medicine/Arrowsmith
Introduction to Scholar Quest
Peak Performance/Wellness EM orientation
Diagnostic Certainty/Biostatistical characteristics of diagnostic tests
EBM - Prognosis
EBM - Therapy

Peer-reviewed Grants and Contracts

Title: CPR Certification Within An Elderly Community
Source: Maria Mandel Research Award, private foundation
Role: Principal Investigator
Percentage Effort: 10%
Years of Grant: 2000

The major goals of this project are to identify major factors linking training in CPR to older citizens living in exclusive elderly communities.

Title:
Source: Jahnigen Career Development Award, Hartford Foundation.
Role: Principal Investigator
Percentage Effort: 50%
Years of Grant: 2002 – 2003, 2003-2004. Not funded.

The major goals of this project are to provide career development in geriatric emergency medicine and clinical research skills.

Title: Arizona Clinical Research Training Program Scholar
Source: National Institutes of Health K30 award, 5K30HL004519-04
Federal grant
Role: Career development scholar
Percentage Effort: 10%
Years of Grant: 2002 – 2004

The major goals of this project are to provide career development clinical research skills.

Title: Wellness Among Resident Physicians and Propensity for Medical Errors
Source: The University of Arizona; State of Arizona, Vice president for Research office Small grants program
Role: Principal Investigator
Percentage Effort: 10%
Years of Grant: 2003-2004

The major goals of this project are to construct and validate a novel tool to measure professional wellness among resident physicians.

Title: Medical Student Wellness Instructional Program
Source: The University of Arizona College of Medicine, Virginia Furrows Innovations in Education Award, private foundation
Role: Principal Investigator
Percentage Effort: 10%
Years of Grant: 2004 – 2005

The major goals of this project are to create an innovative educational intervention for medical students related to professional wellness.

Title: A Collaborative Clinical Research Network for Rapid Response to Biological Threats
Source: United States Department of Veteran's Affairs Research Health Services Research and Development Service, federal grant
Role: Collaborator
Percentage Effort: 25%
Years of Grant: 2005 – not funded.
The major goals of this project are to create and demonstrate a clinical research network to detect and report biological threat incidents.

Title: Risk Perception and Community Intervention regarding Heat Deaths among Mexico-Arizona Border Crossers
Source: Arizona Emergency Medicine Research Center Faculty Seed Grant, Department of Emergency Medicine, The University of Arizona
Role: Principal Investigator
Percentage Effort: 10%
Years of Grant: 2006
The major goals of this project are to complete preliminary interviews of recently repatriated border crossers to investigate their risk perceptions and motivations of crossing. A weather based prediction model and internet warning system will be developed to communicate to the community regarding these risks.

Title: Arizona Center for Human Forensic Bioengineering and Informatics
Source: Arizona Biomedical Research Commission, State of Arizona.
Role: Principal Investigator
Percentage Effort: 20%
Years of Grant: 2006 – not funded.
The major goals of this project are to develop a collaborative network to identify unknown individual deaths presumed to be border crossers through existing and novel forensic DNA technologies.

Title: Novel DNA Technologies for International Human Forensic Identification
Source: Arizona Clinical and Translational Research and Education Consortium, State of Arizona Technology and Research Initiative Fund (TRIF).
Role: Principal Investigator
Percentage Effort: 10%
Years of Grant: 2007-2008
The major goals of this project are to develop a collaborative network to identify unknown individual deaths presumed to be border crossers through existing and novel forensic DNA technologies.

Title: Novel Biomarkers Associated With Heat Stress and Acclimatization
Source: Gatorade Corporation

Role: Principal Investigator
Percentage Effort: 50%
Years of Grant: 2008 – 2009 – not funded

The major goals of this project are to investigate genetic expression markers related to thermal stress in rats and humans.

Title: Authoring Tools for Instructional Software for Mobile Devices
Source: University of Arizona
Role: Co-investigator
Percentage Effort: 5%
Years of Grant: 2010-2012

The major goal of this project is the development of simple tools that would allow faculty across the continuum of medical education to develop learning materials with reasonably consistent formats, and that would be extremely portable by taking advantage of increasingly popular mobile devices such as iPhones, iPads, and/or smartphones and tablets using other operating systems.

Grants currently pending

Title: Alert for clinical decisions with D-dimer triage before Computerized Tomogram for suspected pulmonary embolism
Source: AHRQ RFA-HS-10-003 Re-submitted 10/2011
Role: Co-Investigator (PIOPED investigators)
Percentage Effort: 10%
Years of Grant: 2011-2013

The goal of the proposed research is to test the hypothesis that alerting emergency physicians about a negative D-dimer test result along with a low or intermediate probability objective clinical assessment would reduce the proportion of negative computed tomographic (CT) pulmonary angiograms obtained in patients with suspected acute pulmonary embolism (PE) in the emergency department.

Title: SHB: Type II (INT): Collaborative Research: "Healthcare Decision Support and Cyber-Enabled Patient Empowerment: Analyzing Health Big Data"
Source: National Science Foundation
Role: Co-PI
Percentage effort: 4%
Years of Grant: 2012-2017

The primary intellectual merit of this research resides in: (a) developing advanced data and text mining techniques to represent EHR records and model temporal episodes and disease progression; (b) advancing social media analytics research for patient community interaction and health sentiment analysis; (c) developing and assessing decision support and patient empowerment systems for patient communities in different regions and understanding the societal implications.

Title: The Southwest Neurological Emergencies Clinical Trials Network (SwNETT) Hub (renewal under review currently) 5U10N058962
Source: National Institutes for Neurological Disease and Strokes (NINDS)
Role: Co-PI
Percentage effort 5%
Years of Grant: 2012-2017

The Arizona NETT Hub incorporates 17 major hospitals and most of the EMS agencies of Arizona. This NINDS supported network has demonstrated success with enrolling patients into multiple major clinical trials. We recently recruited the University of New Mexico to the Hub and are now called SwNETT. The network is committed to investigating the effectiveness of new therapies for acute neurological disorders and injuries.

Signed Statement by Candidate

This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b.



Samuel M. Keim, M.D., M.S.