CURRICULUM VITAE (8/8/2016)

Personal Information:

Name: David Mayer Gaba, M.D.

Mailing Address:
1871 Austin Avenue
Los Altos, CA 94024

Electronic Mail: gaba@stanford.edu

Online : http://cisl.stanford.edu

Education:

Undergraduate: Northwestern University, Evanston, Illinois, 1972-1976,
B.S Engineering, Biomedical Engineering
(Area of Specialization: Medical Information Processing)

Medical: Yale University, New Haven, Connecticut, 1976 - 1980, M.D.

Post-graduate Medical Training:

Internship: Waterbury Hospital, Waterbury Connecticut, 1980 - 1981, Internal Medicine

Residency: Stanford University, Stanford, California, 1981 - 1983, Anesthesiology

Current Professional Positions:

- **Associate Dean for Immersive and Simulation-based Learning, Stanford University School of Medicine, July, 2004 – present**

- **Professor of Anesthesia with Tenure, Stanford University School of Medicine, December, 1999 -- without limit of time**

- **Staff Physician, VA Palo Alto Health Care System, 7/83 – present**

- **Founder and Co-Director (with Steve Howard, MD), VA Palo Alto HCS Patient Simulation Center, 1995 – present**

- **Founding Editor-in-Chief, *Simulation in Healthcare*, 2016 – present
*(active EIC 2005 – 2016)***

Previous Professional Positions:

- Associate Professor of Anesthesia (with tenure), Stanford University School of Medicine, September, 1992 – December, 1999
- Assistant Professor of Anesthesia, Stanford University School of Medicine, September 1, 1985 to September 1, 1992
- Acting Assistant Professor of Anesthesia, Stanford University School of Medicine, July 1, 1983 to August 31, 1985
- Chairman, Committee on Human Subjects in Research (IRB), Stanford University, May, 1996 – September, 2002 Committee member, October, 1993 - May, 1996)
- Editorial Board (Associate Editor), *Anesthesiology*, 2004 – 2006
- Editorial Board, *Human Factors*, 2005 - 2006
- Editorial Board, *Teaching and Learning in Medicine*, 2000 – 2006

Certification:
Medical Licensure: California, # available on request
Board Certification: American Board of Anesthesiology, Nov 1, 1985, # available on request

Professional Society Membership:
American Society of Anesthesiologists
California Society of Anesthesiologists
Society for Simulation in Healthcare

Honors and Awards:

Teacher of the Year Award, Department of Anesthesia, Stanford University, 1990-1991

Ellis Cohen Award, Department of Anesthesia, Stanford University, 1995-1996

University of Rochester Center for Medical Simulation Award for Outstanding Contributions to the Field of Medical Simulation, June, 1999

Society for Education in Anesthesia/Duke Award for Excellence and Innovation in Anesthesia Education, October 2003

Department of Veterans Affairs, David M. Worthen Award for Academic Excellence, January, 2004

International Anesthesia Research Society, Achievement in Education Award, 2008

Kaiser Award for Innovative and Outstanding Contributions to Medical Education, Stanford University School of Medicine, May, 2010

The Society for Technology in Anesthesia, J.S. Gravenstein Award for Lifetime Achievement, January, 2011

Department of Veterans Affairs, Under Secretary for Health Award for Excellence in Clinical Simulation Training, Education and Research, January, 2011 (inaugural award)

Icahn School of Medicine, Mount Sinai, New York, Eliasberg Award, April, 2015

National Organizations:

Secretary, Anesthesia Patient Safety Foundation, October, 1990 – 2008; Member at Large, Executive Committee, 2008 - present

Member, Steering Committee and Board of Directors, Advanced Initiatives in Medical Simulation, November, 2004 – present; Treasurer, 2007- 2016 *(AIMS disbanded)*

Founding & Current Member, Board of Directors, Society for Sim Healthcare, January, 2003 – present;

Member, ASA Task Force on Simulation, October 2004 – 2007; Member, ASA Committee on Simulation Education (now Simulation Editorial Board), 2007 – present

Member, Steering Committee, Emergency Manual Implementation Collaborative, 2013 – present

Recent and Current Research Support

1 R18 HS020415-01 **(PI: Matt Weinger)**		3/29/2011 – 4/1/2015
AHRQ	$29,782 – $32,806 (yrs1-3; Stanford portion) Total award (3yrs) = $1, 047,706	Co-I (11%)
Creating Simulation-Based Performance Assessment Tools For Practicing Physicians		

W81XWH-11-C-0050 (PI T Judkins, SU Sub-contract PI A Okamura, Mech Engg		4/5/2012-4/14/2014 (No Cost extension)
DoD; U.S. Army Medical Research and Materiel Command (SBIR Phase II grant)	Stanford component: $199,942; Total Award $750,000	Co-I (2%)
Hands-Free Kinetic System for Medical Simulation (KineSys MedSim)		

DM142062 (PI R Steadman, UCLA)		January 1, 2016 -
DoD Defense Med Rsch & Development Program for the Office of the Congressionally Directed Med Rsch Programs (CDMRP)	TBD	Consultant
Design of a Screen-Based Simulation for Training and Automated Assessment of Teamwork Skills		

BIBLIOGRAPHY (h-index 36 Web of Science [as of 2/2016])

ORIGINAL ARTICLES, COMMENTARIES, AND EDITORIALS:

1. **Gaba DM**, Talner NS: Myocardial damage following transthoracic direct current counter-shock in newborn piglets. Pediatric Cardiology 2: 281-288, 1982.

2. **Gaba DM**, Metz S, Maze M: Post-countershock myocardial damage after pretreatment with adrenergic and calcium channel antagonists in halothane anesthetized dogs. Anesthesiology 62:610-614, 1985

3. **Gaba DM**, Wyner J, Fish KJ: Anesthesia and the Automatic Implantable Cardioverter/Defibrillator. Anesthesiology 62:786-792, 1985

4. Maze M, Hayward E, Jr., **Gaba DM**: Alpha-1 adrenergic blockade raises arrhythmia threshold in halothane anesthetized dogs in a dose-dependent fashion. Anesthesiology 63:611-615, 1985

5. Marmor MF, Donovan WJ, **Gaba DM**: Effects of hypoxia and hyperoxia on the human standing potential. Documenta Ophthalmologica 60:347-352, 1985

6. Prokocimer PG, Nicholls E, **Gaba DM**, Maze M: Epinephrine arrhythmogenicity is enhanced by acute but not chronic aminophylline administration during halothane anesthesia. Anesthesiology, 65:13-18, 1986

7. Hayes DM, **Gaba DM**, Goode RL: Incendiary characteristics of a new laser-resistant endotracheal tube. Otolaryngology - Head and Neck Surgery 95:37-40, 1986

8. **Gaba DM**, Maxwell MS, Merlone S, Smith C: Internal countershock produces myocardial damage and lactate production without myocardial ischemia in anesthetized dogs. Anesthesiology 66:477-482, 1987

9. **Gaba DM**, Maxwell MS, DeAnda A: Anesthetic mishaps: Breaking the chain of accident evolution. Anesthesiology, 66:670-676, 1987

10. Birch BD, Louie GL, Vickery RG, **Gaba DM**, Maze M: L-Phenylisopropyladenosine (L-PIA) diminishes halothane anesthetic requirements and decreases noradrenergic neuro-transmission in rats. Life Sci 42:1355-1360, 1988

11. Maze M, Vickery RG, Merlone SC, **Gaba DM**: Anesthetic and hemodynamic effects of the alpha2-adrenergic agonist, azepexole in isoflurane-anesthetized dogs. Anesthesiology 68:689-694, 1988

12. Maxwell MS, DeAnda A, Vickery R, **Gaba DM**: Lactate extraction and myocardial damage following countershock at different energy levels.   J Cardiothoracic Anesthesia 2:341-345, 1988

13. **Gaba DM**, DeAnda A: A comprehensive anesthesia simulation environment: Re-creating the operating room for research and teaching. Anesthesiology 69:387-394, 1988

14. **Gaba DM**, DeAnda A: The response of anesthesia trainees to simulated critical incidents. Anesthesia and Analgesia 68:444-451, 1989

15. **Gaba DM**: Human error in anesthetic mishaps. International Anesthesiology Clinics 27:137-147,1989

16. Cooper JB, **Gaba DM**: A strategy for prevention of anesthetic mishaps. International Anesthesiology Clinics 27:148-152, 1989

17. Brodsky JB, Adkins MO, **Gaba DM**: Bronchial cuff pressures of double-lumen tubes. Anesth Analg 69:608-610, 1989

18. DeAnda A, **Gaba DM**: Unplanned incidents during comprehensive anesthesia simulation. Anesth Analg 71:77-82, 1990

19. **Gaba DM**, Lee T: Measuring the workload of the anesthesiologist. Anesthesia and Analgesia 71:354-361, 1990

20. DeCampli WM, Baldwin JC, Hagberg RC, **Gaba DM**, Maze M: Adrenergic characteristics of the pulmonary "baroreflex." J Appl Cardiol 5:339-347, 1990

21. DeAnda A, **Gaba DM**: The role of experience in the response to simulated critical incidents. Anesth Analg 72:308-315, 1991

22. **Gaba DM**: Human performance issues in anesthesia patient safety. Problems in Anesthesia 5:329-350, 1991

23. **Gaba DM**, Howard SK: Conference on human error in anesthesia (meeting report). Anesthesiology 75:553-554, 1991

24. Ford SR, Maze M, **Gaba DM**: A comparison of etomidate and thiopental anesthesia for cardioversion. J Cardiothor Vasc Anesth 5:563-565, 1991

25. **Gaba, DM**: Improving anesthesiologists' performance by simulating reality (editorial). Anesthesiology 76:491-494, 1992

26. Cook RI, Woods DD, Howie MB, Harrow JC, **Gaba DM**: Unintentional delivery of vasoactive drugs with an electromechanical infusion device. J Cardiothoracic and Vascular Anesthesia 6:238-244, 1992

27. Kelley JG, **Gaba DM**, Brodsky JB: Bronchial cuff pressures of two tubes used in thoracic surgery. J Cardiothoracic and Vascular Anesthesia 6:190-192, 1992

28. Howard SK, **Gaba DM**, Fish KJ, Yang GS, Sarnquist FH: Anesthesia crisis resource management training: teaching anesthesiologists to handle critical incidents. Aviation, Space, and Environmental Medicine 63:763-770,.1992

29. **Gaba DM**: Anesthesia simulators -- a virtual reality. American Society of Anesthesiologists Newsletter. 57 (8):20-23, August, 1993

30. **Gaba DM**: Improving anesthesia safety by analyzing case reports. American Society of Anesthesiologists Newsletter. 57 (11):9-12, November, 1993

31. Weinger MB, Herndon OW, Zornow MH, Paulus MP, **Gaba DM**, Dallen LT: An objective methodology for task analysis and workload assessment in anesthesia providers. Anesthesiology 80:77-92, 1994

32. **Gaba DM**, Howard SK, Jump B: Production pressure in the work environment: California anesthesiologists' attitudes and experiences. Anesthesiology 81:488-500, 1994

33. **Gaba DM**, Howard SK, Small SD: Situation awareness in anesthesiology. Human Factors 37:20-31, 1995

34. Holzman RS, Cooper JB, **Gaba DM**, Philip JH, Small S, Feinstein D: Anesthesia crisis resource management: Real-life simulation training in operating room crises. Journal of Clinical Anesthesia 7: 675-687, 1995

35. **Gaba DM**: CRM training in health care. The CRM Advocate. Issue 95.4 (October, 1995), p. 7-8

36. Paté-Cornell ME, Murphy DL, Lakats LM, **Gaba DM**: Patient risk in anesthesia: Probabilistic risk analysis and management improvements. Annals of Operations Research 67: 211-233, 1996

37. Weinger MB, Herndon OW, **Gaba DM**: The effect of electronic record keeping and transesophageal echocardiography on task distribution, workload, and vigilance during cardiac anesthesia. Anesthesiology 87:144-155, 1997.

38. Larsson, JE, Hayes-Roth B, **Gaba DM**, Goals and Functions of the Human Body: An MFM Model for Fault Diagnosis, IEEE Transactions on Systems, Man, and Cybernetics, 27:758-764, 1997.

39. Larsson JE, Hayes-Roth B, **Gaba DM**, Smith BE: Evaluation of a medical diagnosis system using simulator test scenarios. Artif Intell Med. 11:119-140, 1997.

40. Pate-Cornell ME, Lakats LM, Murphy DM, **Gaba DM**: Anesthesia patient risk: a quantitative approach to organizational factors and risk management options. Risk Anal 17:511-523, 1997.

41. Healzer JM, Howard SK, **Gaba DM**: Attitudes toward production pressure and patient safety: a survey of anesthesia residents. J Clin Monit Comput 14:145-146, 1998

42. **Gaba DM**, Howard SK, Flanagan B, Smith BE, Fish KJ, Botney R: Assessment of clinical performance during simulated crises using both technical and behavioral ratings. Anesthesiology 89:8-18, 1998

43. **Gaba D**, Cooper J: Landmark report published on patient safety. J Clin Monit Comp 2000; 16: 231-232

44. **Gaba DM**: Anaesthesiology as a model for patient safety in health care. Br Med J 320:785-788, 2000

45. Cooper JB, **Gaba DM**, Liang, B, Woods D, Blum, LN: The National Patient Safety Foundation Agenda for Research and Development in Patient Safety. MedGenMed, July 11, 2000: E38

46. Halamek LP, Kaegi DM, **Gaba DM**, Sowb YA, Smith BC, Smith BE, Howard SK: Time for a new paradigm in pediatric medical education: Teaching neonatal resuscitation in a simulated delivery room environment. Pediatrics 106:(4) e45, 2000 (Available On-line at http://www.pediatrics.org/cgi/content/full/106/4/e45)

47. **Gaba DM**: Structural and organizational issues in patient safety: a comparison of health care to other high-hazard industries. California Management Review 43:83-102, 2001

48. **Gaba DM**, Howard SK, Fish KJ, Smith BE, Sowb YA: Simulation-based training in anesthesia crisis resource management (ACRM): a decade of experience.   Simulation and Gaming. 32:175-193, 2001

49. Rall M, Manser T, Guggenberger H, **Gaba DM**,Unertl K: [Patient safety and errors in medicine: Development, prevention and analyses of incidents] [Article in German]. Anasthesiol Intensivmed Notfallmed Schmerzther 36:321-330, 2001

50. **Gaba DM**: Two examples of how to evaluate the impact of new approaches to teaching (editorial). Anesthesiology 96:1-2, 2002

51. **Gaba DM**: Commentary (invited commentary on Masden LE: Diesel gas, rice, and medical errors (invited commentary). The Pharos, Winter, 2002.

52. Bushell E, **Gaba DM**: Anesthesia simulation and patient safety. Problems in Anesthesia, 13:506-514, 2002

53, Howard SK, **Gaba DM**, Rosekind MR, Zarcone VP: The risks and implications of excessive daytime sleepiness in resident physicians. Acad Med 77:1019-1025, 2002

54. **Gaba DM**, Howard SK: Fatigue among clinicians and the safety of patients. New Engl J Med 347:1249-1255, 2002

55. Cooper JB, **Gaba DM**: No Myth: Anesthesia Is a Model for Addressing Patient Safety (editorial). Anesthesiology 97:1335–7, 2002

56. Singer SJ, **Gaba DM**, Geppert JJ, Sinaiko AA, Howard SK, Park KC. The Culture of Safety: Results from an Organization-wide Survey in 15 California Hospitals. Quality and Safety in Health Care; 2003; 12: 112-118.

57. Reznek M, Smith-Coggins R, Howard S, Kiran K, Sowb Y, **Gaba D**, Krummel T: Emergency Medicine Crisis Management (EMCM): Pilot study of a simulation-based crisis management course for emergency medicine. Acad Emerg Med; 2003; 10: 386-9.

58. **Gaba DM**: Safety First: Ensuring Quality Care in the Intensely Productive Environment – The HRO Model. APSF Newsletter, Spring, 2003, 18(1):1-4.

59. Howard SK, **Gaba DM**, Smith BE, Weinger MB, Herndon C, Keshavacharya S, Rosekind MR: Simulation study of rested versus sleep deprived anesthesiologists. Anesthesiology, 2003, 98:1345-1355

60. **Gaba DM**, Singer S, Sinaiko A, Bowen J, Ciavarelli A: Differences in safety climate between hospital personnel and naval aviators. Human Factors; 2003, 45: 173-185.

61. Lighthall GK, Barr J, Howard SK, Geller E, Sowb Y, Bertaccini E, **Gaba D**: Use of a Fully Simulated ICU Environment for Critical Event Management Training for Internal Medicine Residents. Critical Care Medicine, 2003, 31:2437-2443.

62. Lee SK, Pardo M, **Gaba D**, Sowb Y, Dicker R, Straus EM, Khaw L, Morabito D, Krummel TM, Knudson MM: Trauma assessment training with a patient simulator: a prospective, randomized study. J Trauma 2003; 55: 651-7

63. Howard SK, **Gaba DM**: Trainee fatigue: are new limits on work hours enough? (editorial). CMAJ, 2004, 170:975-976.

64. **Gaba DM**: The future vision of simulation in health care. Quality and Safety in Health Care, 2004;13 (Suppl 1):i2–i10.

65. **Gaba DM**. Thin air. AHRQ WebM&M [serial online]. October 2004. Available at: http://webmm.ahrq.gov/spotlightcases.aspx?ic=76. Accessed October 26, 2004.

66. **Gaba DM**: What makes a "good" anesthesiologist? (editorial). Anesthesiology, 2004, 101:1061-1063.

67. Harrison TK, **Gaba DM**: Safe passage − using simulation to teach patient safety. The Clinical Teacher 2005; 2:37-41.

68. **Gaba DM**: The future's here, we are it (editorial). Simul Healthc, 2006, 1:1-2.

69. Dutta S, **Gaba D**, Krummel T: To simulate or not to simulate: what is the question? (editorial). Ann Surg 2006; 243:301-303.

70. Sowb YA, Howard SK, Raemer DB, Feinstein D, Fish KJ, **Gaba DM**: Clinicians' recognition of the Ohmeda Modulus II Plus and Ohmeda Excel 210 SE Anesthesia Machine System Mode and Function. Simul Healthc; 2006, 1:26-31.

71. Dismukes RK, **Gaba DM**, Howard SK: So many roads: facilitated debriefing in healthcare (editorial). Simul Healthc; 2006, 1:23-25.

72. **Gaba DM**: What does simulation add to teamwork training? AHRQ WebM&M [serial online]. March, 2006. Available at:

http://webmm.ahrq.gov/perspective.aspx?perspectiveID=20. Accessed March 15, 2006.

73. **Gaba DM**: What's in a name? A mannequin by any other name would work as well (editorial). Simul Healthc; 2006, 1:64-65

74. **Gaba DM**: A little bit farther than we've gone before (editorial) Simul Healthc; 2006 1:145-146

75. Harrison TK, Manser T, Howard SK, **Gaba DM**: Use of cognitive aids in a simulated anesthetic crisis. Anesth Analg 2006; 103: 551-6

76. Smith-Coggins R, Howard SK, Mac DT, Wang C, Kwan S, Rosekind MR, Sowb Y, Balise R, Levis J, **Gaba DM**: Improving alertness and performance in emergency department physicians and nurses: The use of planned naps. Annals Emerg Med 2006; 48: 596-604

77. **Gaba DM**, Raemer D: The tide is turning: organizational structures to embed simulation in the fabric of healthcare (editorial). Simul Healthc: 2007;2:1-3.

78. **Gaba DM**, Singer SJ, Rosen, AK: Safety culture: Is the "unit" the right "unit of analysis"? (editorial) Crit Care Med 2007; 35:314-315

79. Fanning RM, **Gaba DM**: The role of debriefing in simulation-based learning. Simul Healthc 2007; 2:115-125

80. **Gaba DM**: When the editor is an author (editorial). Simul Healthc 2007; 2:86-87

81. Dieckmann P, **Gaba D**, Rall M: Deepening the theoretical foundations of patient simulation as social practice. Simul Healthc 2007; 2:183–193.

82. Singer S, Meterko M, Baker L, **Gaba D**, Falwell A, Rosen A: Workforce Perceptions of Hospital Safety Culture: Development and Validation of the Patient Safety Climate in Healthcare Organizations Survey. Health Serv Rsch 2007; 42:1999-2021

83. **Gaba DM**: Out of this nettle, danger, we pluck this flower, safety: Healthcare vs. aviation and other high hazard industries (editorial). Simul Healthc 2007; 2:213-217

84. Harrison TK, **Gaba DM**: New Vistas in Patient Safety and Simulation, Anesthesia Clinics, Vol. 25, No. 2 (book review). Anesth. Analg 2008: 106: 354

85. Cooper JB, Blum R, Carroll JS, Dershwitz M, Feinstein DM, **Gaba DM**, Morey JC, Singla AK: Differences in safety climate among hospital anesthesia departments and the effect of a realistic simulation-based training program. Anesth Analg 2008; 106:574-84

86. Rosen A, **Gaba DM**, Meterko M, Singer S, Shokeen P, Zhao S, Labonte A, Falwell A, "Recruitment of Hospitals for a Safety Climate Study: Facilitators and Barriers, Joint Commission J on Qual and Pt Safety 2008; 34:275-284

87. Knudson MM, Khaw L, Bullard MK, Dicker R, Cohen MJ, Staudenmayer K, Sadjadi J, Howard S, **Gaba D**, Krummel T: Trauma training in simulation: translating skills from SIM time to real time. J Trauma 2008; 64: 255-63; discussion 263-4

88. Hartmann CW, Rosen AK, Meterko M, Shokeen P, Zhao S, Singer S, Falwell A, **Gaba DM**: An Overview of Patient Safety Climate in the VA. Health Serv Res 2008; 43:1263-1284

89. Manser T, Howard SK, **Gaba DM**: Adaptive coordination in cardiac anaesthesia: a study of situational changes in coordination patterns using a new observation system. Ergonomics. 2008; 51:1153-78

90. Singer S, Rathgeb T, Falwell A, **Gaba DM**, Baker L: Patient safety climate in US hospitals: Variation by management level. Med Care; 2008; 46:1149-1156

91. Fann JI, Caffarelli A, Georgette G, Howard SK, **Gaba DM**, Youngblood P, Mitchell RS, Burdon TA: Improvement in Coronary Anastomosis with Cardiac Surgery Simulation. J Thor Cardiovasc Surg; 2008, 136:1486-1491

92. Glavin RJ, **Gaba DM**: Challenges and opportunities in simulation and assessment (editorial). Simul Healthc; 2008, 69-71

93. Singer SJ, **Gaba DM**, Falwell A, Lin S, Hayes J, Baker L: Patient safety climate in 92 US hospitals: differences by work area and discipline. Med Care. 2009 47(1):23-31.

94. Singer S, Lin S, Falwell A, **Gaba D**, Baker L: Relationship of safety climate and safety performance in hospitals. Health Serv Res; 2009, 44:399-421

95. **Gaba DM**: Milestones for the journal (editorial). Simul Healthc; 2009, 4:1-2.

96. Kaafarani HM, Itani KM, Rosen AK, Zhao S, Hartmann CW, **Gaba DM**: How does patient safety culture in the operating room and post-anesthesia care unit compare to the rest of the hospital? Am J Surg; 2009, 198;70-75.

97. Hartmann CW, Meterko M, Rosen AK, Zhao S, Shokeen P, Singer S, **Gaba DM** Relationship of hospital organizational culture to patient safety climate in the Veterans Health Administration. Med Care Res Rev; 2009, 66:320-338

98. Manser T, Harrison TK, **Gaba DM**, Howard SK: Coordination patterns related to high clinical performance in a simulated anesthetic crisis. Anesth Analg 2009; 108:1606-1615

99. **Gaba DM**, Dunn WF: Procedural risks in thoracentesis: Process, progress, and proficiency (editorial). Chest; 2009, 135:1120-1123

100. **Gaba DM**: Do as we say, not as you do: Using simulation to investigate clinical behavior in action (editorial). Simul Healthc; 2009, 4:67-69

101. Singer SJ, Hartmann, CW, Hanchate A, Zhao S, Meterko M, Shokeen P, Lin S, **Gaba D**, Rosen AK: Comparing safety climate between two populations of hospitals in the US. Health Services Research; 2009, 44;1563-1583

102. Singer SJ, Falwell A, **Gaba D**, Meterko M, Rosen A, Hartmann CW, Baker L: Identifying organizational cultures that promote patient safety. Health Care Mgmt Rev: 2009; 34:300-311

103. Raemer D, **Gaba DM**: In tribute to and memory of Beverlee Anderson (editorial). Simul Healthc; 2009; 4:189-190

104. Rosen AK, Singer S, Zhao S, Shokeen P, Meterko M, **Gaba D**. Hospital safety climate and safety outcomes: Is there a relationship in the VA? Med Care Res Rev. 2010; 67:590-608

105. **Gaba DM**: The pharmaceutical analogy for simulation: a policy perspective (editorial). Simul Healthc. 2010; 5:5-7

106. Singer SJ, Rosen A, Zhao S, Ciavarelli AP, **Gaba DM**: Comparing safety climate in naval aviation and hospitals: implications for improving patient safety. Health Care Manage Rev; 2010; 35:134-146

107. Mudumbai SC, Fanning R, Howard SK, Davies MF, **Gaba DM**: Use of medical simulation to explore equipment failures and human-machine interactions in anesthesia machine pipeline supply crossover.   Anesth Analg; 2010; 110:1292-1296.

108. **Gaba DM**: Crisis resource management and teamwork training in anaesthesia (editorial). Br J Anesth; 2010; 105:3-6.

109. **Gaba DM**: Head to Head: Have we gone too far in translating ideas from aviation to patient safety – No. 2011; BMJ; 342:c7310.

110. **Gaba DM**: Training and nontechnical skills: the politics of terminology (editorial). Simul Healthc. 2011; 6:8-10.

111. **Gaba DM**: Where do we come from? What are we? Where are we going? (editorial). Simul Healthc. 2011; 6:195-196.

112. Kardong-Edgren S, **Gaba D**, Dieckmann P, Cook DA: Reporting inquiry in simulation. Simul Healthc 2011; 6: Suppl S63-S66

113. **Gaba DM**: A remarkable impact factor for *Simulation in Healthcare* (editorial). Simul Healthc 2011; 6:313-315.

114. **Gaba DM**: Adapting space science methods for describing and planning research in simulation in healthcare: science traceability and Decadal Surveys. Simul Healthc 2012; 7:27-31

115. Mudumbai SC, **Gaba DM**, Boulet JR, Howard SK, Davies MF: External validation of simulation-based assessments with other performance measures of third-year anesthesiology residents. Simul Healthc. 2012; 7:73-80.

116. Mudumbai SC, **Gaba DM**, Boulet J, Howard SK, Davies MF. Feasibility of an internet-based global ranking J Grad Med Educ. 2011; 3:67-74.

117. Udani AD, Harrison TK, Howard SK, Kim TE, Brock-Utne JG, **Gaba DM**, Mariano ER: Preliminary study of ergonomic behavior during simulated ultrasound-guided regional anesthesia using a head-mounted display. J Ultrasound Med. 2012 Aug;31:1277-80.

118. **Gaba DM**: Simulations that are challenging to the psyche of participants: how much should we worry, and about what? (editorial) Simul Health 2013; 8:4-7.

119. **Gaba DM**: Perspective: Thorniest issues in healthcare. Biomed Instrum Technol. 2013;47:299-303.

120. **Gaba DM**: Peri-operative cognitive aids in anesthesia: What, who, how, and why bother? (editorial) Anesth Analg 2013; 117:1033-1036.

121. Singer SJ, Rivard PE, Hayes JE, Shokeen P, **Gaba D**, Rosen A: Improving patient care through leadership engagement with frontline staff: a Department of Veterans Affairs case study. Jt Comm J Qual Patient Saf 2013; 39: 349-60

122. Keskitalo T, Ruokamo H, **Gaba D**: Towards meaningful simulation-based learning with medical students and junior physicians. Med Teach 2014; 36:230-239

123. Weinger MB, **Gaba DM**: Human factors engineering in patient safety (editorial). Anesthesiology 2014; 120:801-806

124. Weinger M, Burden A, Steadman R, **Gaba D**: This is not a test! Misconceptions surrounding the Maintenance of Certification in Anesthesiology Simulation Course. Anesthesiology 2014; 121:655-659.

125. **Gaba DM**: Simulation as a critical resource in the response to Ebola virus disease (editorial). Simul Healthc 2014; 9:337-8.

126. Steadman R, Burden A, Huang Y, **Gaba D**, Cooper J: Practice Improvements Based on Participation in a Simulation Program for the Maintenance of Certification in Anesthesiology Program. Anesthesiology 2015;122:1154-1169

127. Calhoun AW, Pian-Smith MC, Truog RD, **Gaba DM**, Meyer EC: Deception and simulation education: issues, concepts, and commentary. Simul Healthc 2015; 10:163-169.

128. Calhoun AW, Pian-Smith MC, Truog RD, **Gaba DM**, Meyer EC: Deception and simulation education: A Response. Simul Healthc 2015; 10:387-390

129. Stiegler MP, **Gaba DM**: Decision-making and cognitive strategies (editorial). Simul Healthc 2015; 10:133-138.

130. Mariano ER, Harrison TK, Kim TE, Kan J, Shum C, **Gaba DM**, Ganaway T, Kou A, Udani AD, Howard SK; ADAPT (Anesthesiology-Directed Advanced Procedural Training) Research Group. Evaluation of a standardized program for training practicing anesthesiologists in ultrasound-guided regional anesthesia skills. J Ultrasound Med. 2015 34:1883-93.

131. Lighthall GK, Bahmani D, **Gaba D**. Evaluating the impact of classroom education on the management of septic shock using human patient simulation. Simul Healthc. 2016; 11:19-24

132. Calhoun AW, Pian-Smith MC, Truog RD, **Gaba DM**, Meyer EC. The importance of deception in simulation: a response (response to letter) Simul Healthc. 2015 10:387-390.

133. Stiegler MP, **Gaba DM**. Eye tracking to acquire insight into the cognitive processes of clinicians: Is "looking" the same as "seeing"? Simul Healthc. 2015 10:329-30

134. Udani AD, Harrison TK, Mariano ER, Derby R, Kan J, Ganaway T, Shum C, **Gaba DM**, Tanaka P, Kou A, Howard SK; ADAPT (Anesthesiology-Directed Advanced Procedural Training) Research Group. Comparative-effectivess of simulation-based deliberate practice versus self-guided practice on resident anesthesiologists' acquisition of ultrasound-guided regional anesthesia skills Reg Anesth Pain Med. 2016 41:151-7.

135. Gaba DM: My time as Editor-in-Chief: What a long strange trip it's been (editorial). Simul Healthc. 2016; 11:229-231.

136. Sevdalis N, Nestel D, Kardong-Edgren S, Gaba DM: A joint leap into a future of high-quality simulation research – standardizing the reporting of simulation science (editorial). Simul Healthc 2016; 11:236-237.

BOOKS:

1. **Gaba DM**, Fish KJ, Howard SK: Crisis Management in Anesthesiology. New York, Churchill Livingstone, 1994

2. **Gaba DM**, Fish KJ, Howard SK, Burden AR: Crisis Management in Anesthesiology, 2nd Edition (includes 2 new chapters and revised & additional elements in Catalog of Critical Events). Philadelphia, Saunders – an imprint of Elsevier Inc., 2015 (released September, 2014) Spanish Translation – Manejo de las Crisis en Anestesia – released May, 2016

BOOK CHAPTERS:

1. **Gaba DM**, Baden JM: Physiologic Effects of Drugs Used in Anesthesia. *In* Anesthesia, Surgery, and Pregnancy, edited by Baden JM, Brodsky J. Mount Kisco, NY: Futura Publishing Company, Inc., 1985

2. **Gaba DM**: Dynamic decision-making in anesthesiology: cognitive models and training approaches In Advanced Models of Cognition for Medical Training and Practice, edited by Evans DA, Patel VL. Berlin: Springer-Verlag, 1992, pp 123-147

3. **Gaba DM**: Human work environment and simulators (Chapter 85). *In* Anesthesia, edited by Miller RD, 4th edition. New York: Churchill Livingstone, 1994, pp 2635-2679

4. **Gaba DM**: Human performance in dynamic medical domains. In Human Error in Medicine, edited by Bogner, MS. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1994, pp. 197-224.

5. Botney R, **Gaba DM**: Human factors in monitoring. *In* Monitoring in Anesthesia and Critical Care, 3rd edition, edited by Blitt CD, Hines RL. New York: Churchill Livingstone, 1994, pp. 23-54.

6. **Gaba DM**: Automation in anesthesiology. In Human Performance in Automated Systems: Current Research and Trends, edited by Mouloua M, Parasuraman R. Hillsdale, NJ: Lawrence Erlbaum Associates, 1994, pp. 57-63.

7. **Gaba DM**: Artificial intelligence and expert systems. *In* Control and Automation in Anaesthesia, edited by Schwilden H, Stoeckel H. Berlin: Springer, 1995, pp. 22-38.

8. **Gaba DM**: Full scale anesthesia simulators in the United States. *In* Anesthesia: Implications for the Coming Century, edited by Ikeda K, Kazama T, Katoh T, Doi M, Takahashi H. Tokyo: Churchill Livingstone Japan, 1996, pp15-23.

9. **Gaba DM**: General methods of control and automation. *In* Anesthesia: Implications for the Coming Century, edited by Ikeda K, Kazama T, Katoh T, Doi M, Takahashi H. Tokyo: Churchill Livingstone Japan, 1996, pp 89-97.

10. **Gaba DM**: Simulators in Anesthesia. *In* Advances in Anesthesia, edited by Lake, C. St. Louis: Mosby-Year Book, Inc., Volume 14, 1996, pp 55-94.

11. Howard SK, **Gaba DM**: Human Performance and Patient Safety. *In* Patient Safety in Anesthetic Practice, edited by Morrell R, Eichhorn J. New York: Churchill Livingstone, 1997, pp. 431-466

12. **Gaba DM**: Research techniques in human performance using realistic simulation, *In* Simulators in Anesthesiology Education, edited by Henson L, Lee A, Basford A. New York: Plenum Publishing Corporation, 1998, pp. 93-102.

13. **Gaba DM**: Human work environment and simulators. *In* Anesthesia, 5th edition, edited by Miller RD. New York: Churchill Livingstone, 1999, pp. 2613-2668.

14. Smith BE, **Gaba DM**: Simulators. *In* Clinical Monitoring: Practical Applications for Anesthesia and Critical Care, edited by Lake C, Blitt C, Hines R. Philadelphia: W. B. Saunders, 2001, pp. 26-44.

15. **Gaba DM**: A brief history of mannequin-based simulation and application. *In* Simulators in critical care and beyond. Des Plaines, IL: Society for Critical Care Medicine, 2004, pp 7-14.

16. Rall M, **Gaba D**: Human performance and patient safety, Anesthesia, 6th Edition. Edited by Miller R. New York, Elsevier, 2004, pp 3021-3072

17. Rall M, **Gaba DM**: Patient simulators. *In* Anesthesia, 6th edition, edited by Miller RD. New York: Churchill Livingstone, 2004, pp. 3073-3103.

18. Singer SJ, Dunham KM, Bowen JD, Geppert JJ, **Gaba DM**, McDonald KM, Baker LC. Lessons from a California Hospital Consortium About Safety Climate and Safety Practices. *In*: Henriksen K, Battles JB, Lewin DI, Marks E, editors. Advances in patient safety: From research to implementation. AHRQ Publication No. 05-0021-3 (Vol. 3, Implementation Issues). Rockville, MD: Agency for Healthcare Research and Quality; February, 2005. Available online at: http://www.ahrq.gov/qual/advances/

19. Rall M, **Gaba D**: Human performance and patient safety, Anesthesia, 7th Edition. Edited by Miller R. New York, Elsevier, 2009

20. Rall M, **Gaba DM**: Patient simulators. In Anesthesia, 7th Edition. Edited by Miller R. New York, Elsevier, 2009

21. **Gaba DM**: The thorniest issues in healthcare. *In*: Risk And Reliability In Healthcare And Nuclear Power: Learning From Each Other. Edited by Weinger MD, Halbert BP, Logan MK. Arlington, VA: Association for the Advancement of Medical Instrumentation, 2013, pp. 11-15.

22. **Gaba DM**, Lau N, Desaulniers D: Human factors and human reliability in healthcare and nuclear power. *In*: Risk And Reliability In Healthcare And Nuclear Power: Learning From Each Other. Edited by Weinger MD, Halbert BP, Logan MK. Arlington, VA: Association for the Advancement of Medical Instrumentation, 2013, pp. 37-50.

23. **Gaba DM**: Memoir – Pioneers of Simulation. *In*: Chapter 2, Comprehensive Textbook of Healthcare Simulation, edited by Levine AI, DeMaria Jr. S, Schwartz A, Sim A. New York: Springer, 2013.

24. Fanning R, Goldhaber-Fiebert S, **Gaba DM**: Crisis Resource Management in Healthcare. *In*: Comprehensive Textbook of Healthcare Simulation, edited by Levine AI, DeMaria Jr. S, Schwartz A, Sim A. New York: Springer, 2013.

25. Rall M, **Gaba D**, Howard S, Dieckmann P: Human Performance and Patient Safety, Miller's Anesthesia (8th edition). Edited by Miller R. Philadelphia, Saunders, an imprint of Elsevier Inc., 2014.

26. Rall M, **Gaba D**, Dieckmann P, Eich C: Patient simulation, Miller's Anesthesia (8th edition). Edited by Miller R. Philadelphia, Saunders, an imprint of Elsevier Inc., 2014.

27. Burden AR, Cooper JB, **Gaba DM**: Crisis resource management and patient safety in anesthesia practice, Quality and safety in anesthesia and perioperative care. Edited by Ruskin KJ, Stielgler MP, Rosenbaum SH. New York, Oxford University Press. In Press (proof states copyright 2017)

Named Lectures
(Dr. Gaba has made several hundred invited presentations all over the world. Only named lectures are listed):

Department of Anesthesia, Case Western University School of Medicine, Ali Gharib Lecturer, September, 2003

Columbia University School of Medicine, Morris Symposium Lecture, September 2004

University of Pittsburgh, Peter and Eva Safar Lecture, May, 2007

Department of Anesthesia, Penn State School of Medicine, 14th Joseph Priestley Lecturer, December, 2008

Royal College of Anaesthetists, 40th Joseph Clover Lecture, March, 2010

International Anesthesia Research Society, T.H. Seldon Lecture, May, 2013

Society for Airway Management, Ovassapian Lecture, September, 2014

American Society of Anesthesiologists, Ellison C. Pierce Jr. Memorial Lecture, October, 2014

Icahn School of Medicine, Mount Sinai, New York, Eliasberg Award Lecture, April, 2015

TEACHING

Post-doctoral fellows:

Steven Merlone, M.D.:	1984-1985	Supported by Stanford Dept. of Anesthesia
Mary Maxwell, M.D.:	1985-1986	Supported by California Affiliate, AHA; Stanford Dept. of Anesthesia
Steven Howard, M.D.:	1991	Supported by Stanford Dept. of Anesthesia
Richard Botney, M.D.	1992-1994	Supported by the Dept. of Veterans Affairs
Gregory Botz, M.D.	1994	Supported by the Whitaker Foundation
Brendan Flanagan, M.D.	1995	Supported by the Whitaker Foundation
Brian Smith, M.D.	1996	Supported by Stanford Dept. of Anesthesia
Yasser Sowb, Ph.D.	1997- 2001	Supported by Stanford Dept. of Anesthesia & VA Patient Safety Center of Inquiry
Erin Bushell, M.D.	2000–2001	Supported by Patient Safety Center of Inquiry
Kyle Harrison, M.D.	2003-2004	Supported by Patient Safety Center of Inquiry
Tanja Manser, Ph.D.	2003-2005	Supported by Swiss Govt. Post-doc Grant
Ruth Fanning, M.D.	2005-2006	Supported by Stanford Dept. of Anesthesia
Sesh Mudumbai, M.D.	2006-2007	Supported by Stanford Dept. of Anesthesia
Ankeet Udani, M.D.	2011-2014	Supported by Stanford Dept. of Anesthesia
Naola Austin, M.D.	2014-2015	Supported by Stanford Dept. of Anesthesia
Louise Wen, M.D.	2016-2018	Supported by Stanford Dept. of Anesthesia

Research Students:

Graduate/Medical Students
Abe DeAnda:

1985 (summer quarter)	Supported by Stanford Early Matriculation Program
1986	Supported by Stanford Medical Scholars Program
1987 (winter quarter)	Supported by Anesthesia Patient Safety Grant
1987-88	Supported by Pfeiffer Foundation Scholarship

John Williams

1987 - 1990		Supported by the APSF and by the Whitaker Foundation
Ingo Beinlich, M.D.		(PhD candidate, Medical Information Sciences)
1989 - 1992		Supported by the Whitaker Foundation
George Yang		
1990-1993		Supported by Stanford Med Scholars Program
Joe Fenerty		
1991		Course credit
Belinda Jump		
1992-1995		Supported by Stanford Medical Scholars Program
Sarah Lau		
1993		Course Credit
Oliver Herndon		
1993, 1995, 1996		Supported by Stanford Medical Scholars Program
Lisa Pate		
2000 (summer quarter)		Supported by Stanford Early Matriculation Program
Noah Richmond		
2001-2002		Thesis Research
Michael Cook		
2013 (June)		Supported by U. C. Davis scholarship

Undergraduate Students

George Yang:	1987-1989	For course credit
Thomas Lee:	1988-1990	Supported by Anesthesia Patient Safety Foundation
Laura Chyu	1996	Volunteer
Dat Mac	2001-2003	Supported by PSCI

Courses Taught (all of the below were co-created by Dr. Gaba):

Anesthesia Crisis Resource Management (ACRM1) (1990 - present)

Intermediate Anesthesia Crisis Resource Management (ACRM2) (1997 - present)

Advanced Anesthesia Crisis Resource Management (ACRM3) (1998 - present)

Simulation Instructor Course (1995 - present)

VA SimLEARN Simulation Instructor Course (2011 - present)

Maintenance of Certification in Anesthesia Simulation Course (2011 – present)

VA SimLEARN Code Team Simulation Instructor Course (2012 – present)

VA SimLEARN Out of OR Airway Management Simulation Instructor Course (2012 – present)