

## CURRICULUM VITAE

Stephen M. Milner, M.B.B.S., B.D.S., F.R.C.S. (Ed.), F.A.C.S.

---

December, 2009

### DEMOGRAPHIC AND PERSONAL INFORMATION

#### Current Appointments

Professor of Plastic Surgery, Pediatrics and Dermatology  
Chief, Division of Burns, Johns Hopkins University School of Medicine  
Chief, Plastic Surgery at Johns Hopkins Bayview Medical Center  
Baltimore, MD

Director, Johns Hopkins Burn Center  
Surgical Director, Johns Hopkins Wound Center  
Director, Michael D Hendrix Burn Research Center

Honorary Civilian Consultant Advisor to the British Army in Plastic Surgery and Burns

#### Personal Data

Johns Hopkins Bayview Medical Center  
4940 Eastern Avenue, Suite P3-4-11  
Baltimore, MD 21224-2780  
(410) 550-0886 Phone  
(410) 550-8161 FAX  
smilner3@jhmi.edu  
Citizenship: United States

### EDUCATION AND TRAINING

#### Graduate

1968-1973    Guy's Hospital Dental School, University of London, England.  
Dental Surgery, B.D.S.  
1973-1977    Guy's Hospital Medical School, University of London, England.  
Medicine/Surgery, M.B. B.S.

## **Postdoctoral**

### **Residency in General Surgery**

1977-1978 Guy's Hospital, London, England  
1978-1979 Queen Mary's Hospital, Roehampton, London, England  
1979-1980 Guy's Hospital, London, England  
1980-1981 Torbay Hospital, Devon, England  
1981-1982 Massachusetts General Hospital & Shriners Burns Institute, Boston  
1982-1984 The Royal London Hospital, England

### **Military experience**

*(1984-1994 Commissioned in the British Army as Surgeon, Royal Army Medical Corps)*

1984-1985 Captain  
1985-1991 Major  
1991-1994 Lieutenant Colonel

### Operational Service

1986-1987 Officer Commanding, Field Surgical Team, Belize  
1987 Surgeon, BMH, Berlin, Germany  
1990-1991 Surgeon, Burn Unit, 33 Field Hospital & 205 General Hospital, Saudi Arabia, Operation Desert Storm

1984-1992 *Served in the following military hospitals and units as general surgeon:*

Royal Army Medical College, London  
Cambridge Military Hospital, Aldershot, England  
British Military Hospital Munster, Germany  
British Military Hospital Berlin, Germany  
Princess Alexandra RAF Hospital, Wroughton, England  
Queen Elizabeth Military Hospital, Woolwich, England  
Duchess of Kent Military Hospital, Catterick, England  
British Military Hospital Hong Kong  
The British Defense Staff (British Embassy), Washington DC

### Research Fellowship

1992-1994 Trauma Section, Medical Division, Chemical and Biological Defence Establishment, Porton Down, Salisbury, England

### **Residency in Plastic Surgery**

1994-1997 University of Texas Medical Branch, Galveston, TX  
(& Research Associate, Shriners Burns Institute)

## PROFESSIONAL EXPERIENCE

### Academic Appointments

- 1997-2001 Assistant Professor of Surgery, Southern Illinois University School of Medicine (SIU), Springfield, IL.  
2001-2004 Associate Professor of Surgery, SIU School of Medicine  
2004-2005 Professor of Surgery, SIU School of Medicine

### Visiting Professorships

- 2002-present University of Texas Medical School at Houston, TX in Pathology and Laboratory  
12-15 Jun 2007 University of Medicine and Dentistry of New Jersey, Newark, NJ  
20-21 Jun 2007 Virginia Commonwealth School of Medicine, Richmond VA. (Theogaraj Professor)  
11-16 Oct 2007 Military Medical Academy of St Petersburg, Russia  
11-16 Oct 2007 Leningrad Regional Burn Centre, Russia  
11-14 Feb 2009 Kenyatta National Hospital, Nairobi, Kenya  
4-5 Nov 2009 Harvard Medical School, Division of plastic Surgery, Boston MA

### Hospital Appointments

- 1997-2005 Director, Regional Burn Center, Memorial Medical Center, Springfield, IL  
1998-2005 Director of the Skin Tissue Culture Laboratory, Memorial Medical Center  
2004-2005 Vice Chairman of Plastic Surgery, Memorial Medical Center  
2004-2005 Attending Plastic Surgeon, St John's Hospital, Springfield, IL

## RESEARCH ACTIVITIES

### Peer-reviewed scientific articles

1. Chapman P, **Milner SM**. Escaped faecolith after appendicectomy. *Br J Surg*. 1986; 73:1006.
2. Chivers RC, **Milner SM**. Ultrasonic B-scanning in dermatology. In: *Proceedings of the Ultrasonics International Conference*. London, UK: Butterworth Scientific Publishers;1989:1208–1212.
3. **Milner SM**, Hawthorn IE. Double gallbladder diagnosed by T-tube cholangiogram. *J R Army Med Corps*. 1989;135:84-5.
4. **Milner SM**, Hawthorn IE, Morgans BT. Liposarcoma of the cord presenting at vasectomy counseling. *J R Army Med Corps*. 1989;135:86-7.

5. **Milner SM**, Pampapathi MR. Head injuries in a service community. *Medical Corps International*. 1990;6:22-4.
6. **Milner SM**, Blease SC. Does scrotal ultrasound reduce the need for orchidectomy in the clinically malignant testicle? *Br J Rad*. 1990;63:263-5.
7. Corner NB, **Milner SM**, MacDonald R, Jubb M. Isolated musculocutaneous nerve lesion after shoulder dislocation. *J R Army Med Corps*. 1990;136:107-8.
8. Ryan JM, Cooper GJ, Haywood IR, **Milner SM**. Field surgery on a future conventional battlefield: strategy and wound management. *Ann R Coll Surg Engl*. 1991;73:13-20.
9. Chambers DK, **Milner SM**, Bennett JDC and Stone J. Antichemical warfare tent used for operation in the Gulf. *Br Med J*. 1991;302:68.
10. Pailthorpe CA, **Milner SM**, Sims MM. Is patellectomy compatible with an army career? *J R Army Med Corps*. 1991;137:76-79.
11. Williams MD, Pearson MH and **Milner SM**. Complications in the use of compression plates in the treatment of mandibular fractures. *Oral Surg Oral Med Oral Pathol*. 1991;72:159-61.
12. **Milner SM**, Bennett JDC. Emergency cricothyrotomy. *J Laryngol Otol*. 1991;105:883-5.
13. **Milner SM**, Bennett JDC, Pilcher R. Respiratory obstruction as a complication of dental extractions. *Dental Corps International*. 1992;4:412-3.
14. **Milner SM**, Chambers DK, Bennett JDC. Surgery in collective protection against chemical warfare. *J R Coll Surg Edinb*. 1992;37:118-19.
15. **Milner SM**. Acetic acid to treat *Pseudomonas aeruginosa* in superficial wounds and burns. *Lancet*. 1992;340:61
16. Williams MD, **Milner SM**, Pearson MH, Ryan JM and Merrett TG. Management of service personnel with a history of penicillin allergy: discussion paper. *J R Soc Med*. 1993;86:156-8.
17. Sloss JM, Cumberland N, **Milner SM**. Acetic acid used for the elimination of *Pseudomonas aeruginosa* from burn and soft tissue wounds. *J R Army Med Corps*. 1993;139:49-51.
18. **Milner SM**, Rylah LT. War burns: a simplified resuscitation protocol. *Br J Hosp Med*. 1993;50:163-7.

19. **Milner SM.** Chemical injury to skin. *Chemical Defence Establishment. Porton Technical Paper.* No 774. 1993.
20. **Milner SM,** Hodgetts TJ, Rylah LT. The Burns Calculator: a simple proposed guide. *Lancet.* 1993;342:1089-91.
21. **Milner SM.** Quantitative determination of human skin thickness using ultrasound B-scanning imaging system. *Chemical Defence Establishment. Porton Technical Paper.* No 806. 1993.
22. Bennett JCD, **Milner SM.** Innovation: Burn management. *Hospital Update.* 995;21:140-1.
23. **Milner SM,** Rylah LT, Bennett JD. The Burn Wheel: a practical guide to fluid resuscitation. *Burns.* 1995;21:288-90.
24. Gherardini G, Evans GR, **Milner SM,** Gurlek A, Palmer B, Gazelius B, Lundeberg T. Comparison of vascular effects of calcitonin gene-related peptide and lidocaine on human veins. *J Reconstr Microsurg.* 1996;12:241-5.
25. Gherardini G, Evans GR, Theodorsson E, Gurlek A, **Milner SM,** Palmer B, Lundeberg T. Calcitonin gene-related peptide in experimental ischemia. Implication of an endogenous anti-ischemic effect. *Ann Plast Surg.* 1996;36:616-20.
26. **Milner SM,** Memar OM, Gherardini G, Bennett JDC, Phillips LG. The histological interpretation of high frequency cutaneous ultrasound imaging. *Dermatol Surg.* 1997;23:43-5.
27. Bennett JCD, **Milner SM,** Gherardini G, Phillips LG and Herndon DN. Burn inhalation injury. *Emergency Medicine.* 1997;12-32.
28. Roth AC, Leon MA, **Milner SM,** Herting RL, Hahn AW. A personal digital assistant for determination of fluid needs for burn patients. *Biomed Sci Instrum.* 1997;34:186-90.
29. **Milner SM,** Kinsky MP, Guha SC, Herndon DN, Phillips LG, Kramer GC. A comparison of two different 2400 mOsm solutions for resuscitation of major burns. *J Burn Care Rehabil.* 1997;18:109-15.
30. Bennett JCD, **Milner SM** and Gherardini G. Two British advances consequent to the Persian Gulf War 1990-1991. *Navy Medicine.* 1997;5:16-7.
31. Gherardini G, Gurlek A, Evans GR, **Milner SM,** Matarasso A, Wassler M, Jernbeck J, Lundeberg T. Venous ulcers: improved healing by iontophoretic administration of calcitonin gene-related peptide and vasoactive intestinal polypeptide. *Plast Reconstr Surg.* 1998;101:90-3.

32. Gherardini G, Gurlek A, **Milner SM**, Matarasso A and Evans GR, Jernbeck J, Lundeberg T. Calcitonin gene-related peptide improves skin flap survival and tissue inflammation. *Neuropeptides*. 1998;32:269-73.
33. **Milner SM**, Hegggers JP. The use of a modified Dakin's solution (sodium hypochlorite) in the treatment of *Vibrio vulnificus* infection. *Wilderness Environ Med*. 1999;10:10-2.
34. **Milner SM** et al. The clinical anatomy of several invasive procedures: cricothyrotomy section. *Clinical anatomy*. 1999;12:43-54.
35. **Milner SM**, Ortega MR. Reduced antimicrobial peptide expression in human burn wounds. *Burns*. 1999;25:411-3
36. Mowlavi A, Andrews K, Lille S, Verhulst S, Zook EG, **Milner SM**. The management of cubital tunnel syndrome: a meta-analysis of clinical studies. *Plast Reconstr Surg*. 2000;106:327-34.
37. Ortega MR, Ganz T, **Milner SM**. Human beta defensin is absent in burn blister fluid. *Burns*. 2000;26:724-6.
38. Fullerton JK, Smith CE, **Milner SM**. The "stegosaurus" dressing: a simple and effective method of securing skin grafts in the burn patient. *Ann Plast Surg*. 2000;45:462-4.
39. Kinsky MP, **Milner SM**, Button B, Dubick MA, Kramer GC. Resuscitation of severe thermal injury with hypertonic saline dextran: effects on peripheral and visceral edema in sheep. *J Trauma*. 2000;49:844-53.
40. Mowlavi A, Andrews K and **Milner SM**, Herndon DN, Hegggers JP. The effects of hyperglycemia on skin graft survival in the burn patient. *Ann Plast Surg*. 2000;45:629-32.
41. Smith CE, **Milner SM**. The burn wheel: a guide to burn resuscitation. *Emerg Med Serv*. 2001;30:76-7.
42. **Milner SM**, Smith CE. Palm-top computer application for fluid resuscitation in burns. *Plast Reconstr Surg*. 2001;108:1838-9.
43. **Milner SM**, Mottar R, Smith CE. The Burn Wheel. *Am J Nur*. 2001;10:35-7. Gulati S,
44. Nicholson D and Milner SM. The Father Mulcahey effect: The role treatment of the chaplain in the treatment of the burned patient. *Dialogue* 2001; Fall-Winter.
45. Parungao AJ, **Milner S**. Photo quiz: A swollen, draining thumb. *American Family Physician*. 2002;65:105-6.

46. **Milner SM.** Predicting early burn wound outcome using orthogonal polarization spectral imaging. *Int J Dermatol.* 2002;41:715.
47. **Milner SM, Gulati S.** Use of fibrin glue in excision and grafting of facial burns. *J Burns Wounds* 2002;1:e18.
48. Rubis BA, Danikas D, Neumeister M, Williams WG, Suchy H, **Milner SM.** The use of split-thickness dermal grafts to resurface full thickness skin defects. *Burns.* 2002;28:752-9.
49. **Milner SM, Gulati S.** A nuclear weapon over Chicago. *Illinois Magazine.* 2003;1:38-40.
50. Danikas D, Fullerton JK, Smith CE, **Milner SM.** A new method for securing skin grafts in pediatric patients. *Plast Reconstr Surg.* 2003;111:489.
51. Lawyer CH, Lawyer MC, Bhat S, Gulati S, **Milner SM.** SARS virus S2 glycoprotein tryptophan-rich membrane anchor: Rapid responses for Eaton. *BMJ.* 2003;326:948.
52. Mowlavi A, Quin BM, Zook E, **Milner SM.** Ray amputation as a treatment for recurrent myxohyaline tumor of the distal extremity. *Plast Reconstr Surg.* 2003;111:1573-4.
54. Andrews K, Mowlavi A, **Milner SM.** The treatment of alkaline burns of the skin by neutralization. *Plast Reconstr Surg.* 2003;111:1918-21.
55. **Milner SM, Cole A, Ortega MR, Bakir MH, Gulati S, Bhat S, Ganz T.** Inducibility of HBD-2 in acute burns and chronic conditions of the lung. *Burns.* 2003;29:553-5.
56. Gulati S, De La Cruz R, **Milner SM.** The firework tragedy of Peru. *J Burns Wounds* 2003;2:e22.
57. Mowlavi A, Bass MJ, Khurshid KA, **Milner SM, Zook EG.** Psychological sequelae of failed scalp replantation. *Plast Reconstr Surg.* 2004;113:1573-9.
58. Guha SC, **Milner SM, Chanda A.** The anatomical basis of the modified volar advancement flap for fingertip reconstruction. The Royal College of Surgeons of Edinburgh Surgical knowledge and Skills website. 2004.
59. Bick RJ, Poindexter BJ, Bhat S, Gulati S, Buja M, **Milner SM.** Effects of cytokines and heat shock on defensin levels of cultured keratinocytes. *Burns.* 2004;30:329-33.
60. Gulati S, Joshi BB, **Milner SM.** The Use of JESS in post burn contractures of the hand and wrist: A twenty years experience. *J Burn Care Rehabil.* 2004;25:416-20.
61. **Milner SM, Bhat S, Buja M, Gulati S, Poindexter BJ, Bick RJ.** Expression of Human beta defensin 2 in thermal injury. *Burns.* 2004;30:649-54.

62. **Milner SM**, Bhat S, Gulati S, Bick RJ, Graham JS. Orthogonal polarization spectral imaging following thermal and sulfur mustard injury. *Proceedings of USAMRICD Bioscience review*. 2004;144:71-81.
63. Bhat S, Gulati S, Husain K, Brahmamdam AS, Campbell CM, **Milner SM**. The role of glutathione depletion and oxidative stress in Mustard toxicity: A review. *Proceedings of USAMRICD Bioscience review*. 2004; 204:1-10.
64. Havener G, Roth M, Arakare P, Mottar P, Barenfanger, Mace K, Gulati S, **Milner SM**, Khardori N. Effective investigation and control of an Aspergillois outbreak in a regional burn unit. *J Burns Wounds* 2004;3:e11.
65. **Milner SM**, Bhat S, Gulati S, Gherardini G, Smith E, Bick RJ. Observations on the microcirculation of the human burn wound using orthogonal polarization spectral imaging. *Burns* 2005;31:316-9.
66. Crain VA, Gulati S, Bhat S, **Milner SM**. Marjolin's ulcer in chronic hidradenitis suppurativa. *Am Fam Physician*. 2005;71:1652.
67. Graham JS, Chilcott RP, Rice P, **Milner SM**, Hurst CG, Maliner BI. Wound Healing of Cutaneous Sulfur Mustard Injuries: Strategies for the Development of Improved Therapies. *J Burns Wounds* 2005:4:e1.
68. Poindexter BJ, Bhat S, Buja ML, Bick RJ, Milner SM. Localization of antimicrobial peptides in normal and burned skin. *Burns*. 2006.32:402-7.
69. Thombs BD, Singh VA, **Milner SM**. Children Under 4 Years are at Greater Risk of Mortality Following Acute Burn Injury: Evidence from a National Sample of 12,902 Pediatric Admissions. *Shock* 2006;26:348-52.
70. Milner SM. Editorial: setting science free. *J Burns Wounds*. 2006;5:e6.
71. Gherardini G, Zaccheddu R, Milner SM, El-Shazyl, Liapkis. Breast augmentation with silicone implants: the role of surgical drainage – report on 502 consecutive cases. *Eur J Plas Surg* 2006. 29: 9-12.
72. Singh VA, Cooley M, Gerold K, Spence RJ, **Milner SM**. The Recliner Position: A new operating position for burn surgery. *Burns*. 2007;33:376-7.
73. Bhat S, Song Y, Lawyer C, Milner SM. Modulation of the complement system by human B- Defensin 2. *J Burns Wounds*. 2007;5:e10.
74. Thombs BD, Singh VA, Halonen J, Diallo A, Milner SM. The Effects of Pre-existing Medical Co-morbidities on Mortality and Length of Hospital Stay in Acute Burn Injury: Evidence from a National Sample of 33,543 Adult Patients. *Ann Surg* 2006;245:629-34.

75. Singh VA, Bhat S, **Milner SM**. The Pathogenesis of Burn Wound Conversion. *Ann Plast Surg*. 2007;59:109-15.
76. Price LA, Thombs B, Chen CL, **Milner SM**. Liver disease in burn injury: evidence from a national sample of 31,338 adult patients. *J Burns Wounds*. 2007;7:e1.
77. Bick RJ, Poindexter BJ, Buja LM, Lawyer CH, **Milner SM**, Bhat S. Nuclear Localization of HBD-1 in Human Keratinocytes. *J Burns Wounds*. 2007;7:e3.
78. Parihar A, Parihar M, Milner SM, Bhat S. Oxidative stress and anti-oxidative mobilization in burn injury. *Burns* 2008;34:6-17.
79. Bhat S, **Milner SM**. Antimicrobial peptides in burns and wounds. *Curr Protein Pept Sci*. 2007;8:506-20
80. Banks ND, **Milner SM**. Persistence of human skin allograft in a burn patient without exogenous immunosuppression. *Plast Reconstr Surg*. 2008;121:230e-1e.
81. Franz MG, Robson MC, Steed D, Barbul A, Brem H, Cooper DM, Leaper D, **Milner SM**, Payne WG, Wactel TL, Wiersema-Bryant L. Guidelines to aid healing of acute wounds by decreasing impediments of healing. *Wound Repair Regen*. 2008;16:723-48.
82. Pauldine R, Gibson BR, Gerold KB, **Milner SM**. Considerations in burn care. *Contemporary Critical Care*. 2008;6:1-12.
83. Gibson BR, Galiatsatos P, Rabiee A, Eaton L, Abu-Hamdah R, Christmas C, **Milner SM**, Andersen DK, Elahi D. Intensive insulin therapy confers a similar survival benefit in the burn intensive care unit to the surgical intensive care unit. *Surgery*. 2009.
84. Blome-eberwein S, Johnson M, Miller S, Jordan MH, **Milner SM**. Hydrofiber dressing with silver for the management of split-thickness donor sites: a randomized evaluation of two protocols of care. *Burns*. 2009 (in press).
85. Zhang X, Wei X, Liu L, Marti GP, Ghanamah MS, Arshad L, Strom L, Spence R, Jeng J, **Milner SM**, Harmon JW, Semenza GL. Increasing burn severity in mice is associated with delayed mobilization of circulating angiogenic cells. *Arch Surg*. 2009 (in press).
86. Young L, Orosco R, **Milner S**. Double fire tragedy of Kenya. *ePlasty*. 2009;10:e3.
87. Poindexter BJ, Klein GL, Milner SM, Bick RJ. Upregulation of defensins in burn sheep small intestine. *ePlasty*;2009;10e6.

## Book Chapters/Books

1. **Milner SM**, Rylah LTA, Nguyun TT, Redelmeier RJ, Pierre EJ, Herndon DN. Chemical injury. In: Herndon DN (ed). Total Burn Care. Philadelphia: WB Saunders. 1995: 415-25.
2. **Milner SM**, Nguyun TT, Herndon DN, Rylah LTA. Radiation injury and mass casualties. In: Herndon DN (ed). Total Burn Care. Philadelphia: WB Saunders. 1995:425-32.
3. Nguyun TT, **Milner SM** and Herndon DN. Radiation injuries. In: Feliciano, Moore, Mattox (eds). Trauma. Stamford: Appleton & Lange, 3<sup>rd</sup> edition. 1996:963-73.
4. **Milner SM**, Herndon DN. Radiation injury, vesicant burns and mass casualties. In: Herndon DN (ed). Total Burn Care. Philadelphia: WB Saunders, 2<sup>nd</sup> edition. 2001:481-92.
5. **Milner SM**, Smith CE. Orders in Burn Care. In: Orgill DP, Demling RH, Sheridan R, DeSanti L (eds). 2002. <http://www.burnsurgery.com/Modules/orders/toc.htm>
6. **Milner SM**. Herndon DN. Radiation injury, vesicant burns and mass casualties. In: Herndon DN (ed). Total Burn Care. Philadelphia: WB Saunders, 3rd edition. 2007:542-553.
7. Singh VA, **Milner SM**. Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis. In: Marcucci L, Martinez EA, Haut ER, Slonim AD, Suarez JI (eds). Avoiding common ICU errors. Philadelphia: Lippincott Williams & Wilkins. 2006. 735-6.
8. Singh VA, **Milner SM**. Burn Management. In: Makary MA (ed). General Surgery Review. Washington: Ladner-Drysdale. 2008,445-55.
9. Singh VA, **Milner SM**. Wound Healing. In: Makary MA (ed). General Surgery Review. Washington: Ladner-Drysdale. 2008, 471-4.
10. **Milner SM**, Singh VA. Fluid management and nutritional support of the burn patient. In: Cameron JL (ed). Current Surgical Therapy. St Louis: CV Mosby, 9<sup>th</sup> edition. 2008, 1072-5.
11. Manahan MA, **Milner SM**, Freeswick P, Harmon JW. Necrotizing skin and soft tissue infections. In: Cameron J (ed). Current Surgical Therapy. St Louis: CV Mosby, 9<sup>th</sup> edition. 2008, 1128-31.

12. **Milner SM.** Burns. In: Guyuron B, Eriksson E, Persing J, Chung KC, Disa J, Gosain A, Rubin P, Kinney B (eds). Plastic Surgery. London: Elsevier. 2006,147-57.

### **Published Abstracts**

1. **Milner SM,** Riley P, Regan PJ, Budney PG, Roberts AHN. Contact burns due to thermoplastic road paint. 24th Annual Meeting of the British Burn Association. Stoke Mandeville UK. May 1991.
2. **Milner SM.** Fluid resuscitation in war. Annual Meeting of the Military Surgical Society. London, England. May 1992.
3. **Milner SM.** The Burn Calculator. Annual Meeting of the Military Surgical Society. London, England. Oct 1993.
4. **Milner SM,** Kinsky MP, Guha SC, Herndon DN, Phillips LG, Kramer GC. A comparison of two different 2400mOsm solutions for resuscitation for major burns. Proc Amer Burn Assoc, 28th Annual Meeting. Nashville, TN. March 1996. *J Burn Care Rehabil.* 1996;28;S75.
5. Mitchell AT, **Milner SM,** Kinsky MP, Guha SC, Phillips LG, Desai M, Herndon DN , Kramer GC. Base deficit: Evaluation as a guide to volume resuscitation in burn injury. Proc Amer Burn Assoc, 28th Annual Meeting. Nashville, TN. March 1996. *J Burn Care Rehabil.* 1996;28;S75.
6. Mancoll JS, **Milner SM,** Phillips LG, Herndon DN, Hegggers JP. Misuse of quantitative bacteriology. Proc Amer Burn Assoc, 28th Annual Meeting. Nashville, TN, March 1996. *J Burn Care Rehabil.* 1996;28;S117.
7. **Milner SM,** Calianos T, Strock L, Phillips LG. Early mobilization of flexor tendon injuries in a prison population does not lead to improved functional outcome. American Association for Hand Surgery, 27<sup>th</sup> Annual Meeting. Boca Raton, FL. Jan 1997.
8. **Milner SM,** Thomas J, Grady J, Herndon DN, Phillips LG, Kramer G. The clinical record of hypertonic saline in burn resuscitation: A meta-analysis of controlled clinical studies. Proc Amer Burn Assoc, 29<sup>th</sup> Annual Meeting. New York, NY. March 1997. *J Burn Care Rehabil.* 1997;18(1 Pt 3):S88.
9. **Milner SM.** Fluid resuscitation from the desert to the emergency room. PSEF Senior Residents' Conference. Sacramento, CA. April 1997.
10. Conroy BP, **Milner SM,** Herndon DN, Nichols R. Reliability of the advanced trauma life support criteria in predicting burn inhalation injury in children. Amer Soc of Anesthesiology, Annual Meeting. San Diego, CA. Oct 1997. *Anesthesiology.* 1997;87:3a.

11. Roth AC, Leon MA, **Milner SM**, Herting RL, Hahn AW. A personal digital assistant for determination of fluid needs for burn patients. Proc Rocky Mountain Bioengineering Symposium, 35<sup>th</sup> Meeting. Copper Mountain, CO. 1998.
12. **Milner SM**, Ortega MR, Kucan JO, Neumeister MW. Human defensin expression in burned, uninjured skin. Surgical Infection Society-Europe, 11<sup>th</sup> Annual Meeting. London, England. 1998. *Br J Surg*. 1998;85:864-5.
13. Pal SK, Than M, Kramer G, **Milner SM**. The effects of early colloid therapy on fluid balance of burn-injured patients. British Association of Plastic Surgery Meeting. London, England. 1998.
14. Chalekson C, Neumeister M, Heggens J, **Milner SM**. Defensin modulation of burn wounds. Proc Amer Burn Assoc, 31<sup>th</sup> Annual Meeting. Lake Buena Vista, FL. March 1999. *J Burn Care Rehabil*. 1999;20(1 Pt 2):S224.
15. Gruneiro AJ, Mitchell AT, **Milner SM**. The acute abdomen in the burn patient: presentation of a cecal volvulus. Southern Medical Association, 12<sup>TH</sup> Annual Regional Burn Seminar. Winston-Salem, NC. 1999.
16. **Milner SM**. From the desert to the emergency room: A simple safe method for early postburn fluid resuscitation. International Symposium and Course on Burns and Fire Disaster Management, Jerusalem, Israel. Feb 2000.
17. Ortega MR, Ganz T, **Milner SM**. Human beta defensin 2 is absent in burn blister fluid. Proc Amer Burn Assoc, 32nd Annual Meeting. Las Vegas, NV. March 2000. *J Burn Care Rehabil*. 2000;21(1 Pt 2):S225.
18. Mowlawi Andrews K, **Milner SM**, Herndon DN, Heggens D. The effects of hyperglycemia on skin graft survival in the burn patient. Proc Amer Burn Assoc, 32nd Annual Meeting. Las Vegas, NV. March 2000. *J Burn Care Rehabil*. 2000;21(1Pt 2):S189.
19. Song Y, Heggens JP, **Milner SM**. Human beta defensins, and complement. Proc Amer Burn Assoc, 32nd Annual Meeting, Las Vegas, NV. March 2000. *J Burn Care Rehabil*. 2000;21(1 Pt 2):S198.
20. Gruneiro AJ, Mitchell AT, **Milner SM**. Two stage treatment of calciphylaxis. 10<sup>th</sup> annual meeting of the Wound Healing Society. Toronto, Canada. June 2000.
21. Williams, CA, Kramer GC, Ying H, Deyo DJ, Elgjo GI, **Milner SM**, J Liu, Herndon DN, Microprocessor Based Closed-Loop Fluid Resuscitation of Burn *Shock*. Proc of Twenty-Fourth Annual Conference on Shock. Marco Island, FL. June 2001. *Shock*. 2001;15(1):11.

22. Kramer GC, Ying H, Elgjo GI, Williams CA , **Milner SM**. Microprocessor based closed-loop fluid resuscitation of burn shock. Proc 18<sup>th</sup> Annual Houston Conference on Biomedical Engineering Research (HSEMB), The Houston Society for Engineering in Medicine, Biology. Houston, TX. 2000.
23. Andrews K, **Milner SM**. The neutralization of alkaline burns of the skin, Proc Amer Burn Assoc, 33<sup>rd</sup> Annual Meeting. Boston, MA. April 2001. *J Burn Care Rehabil.* 2001;22(2 Suppl):S57.
24. Fullerton JK, Smith CE, **Milner SM**. The Stegosaurus Dressing in pediatric burn patients Proc Amer Burn Assoc, 33<sup>rd</sup> Annual Meeting. Boston, MA. April 2001. *J Burn Care Rehabil.* 2001;22(2 Suppl):S172.
25. Smith CE, Roth AC, **Milner SM**. Palm-top computer application for fluid resuscitation in burns. Proc Amer Burn Assoc, 33<sup>rd</sup> Annual Meeting. Boston, MA. April 2001. *J Burn Care Rehabil.* 2001;22(2 Suppl):S181.
26. Mowlavi A, Andrews K, **Milner SM**. The neutralization of alkaline burns. Combined Research Symposium, SIU. Springfield, IL. April 2001 (First prize).
27. **Milner SM**, Poindexter B, Buja M, Smith CE, Bick RJ. Localization of Human beta-defensin in burned skin by fluorescence imaging. The 11<sup>th</sup> Annual Meeting of the Wound Healing Society. Albuquerque, NM. 2001. *Wound Repair Regen.* 2001; 9:158.
28. Smith CE, Magre R, Stevens WR, **Milner SM**. The determination of burn depth using magnetic resonance imaging, The 11<sup>th</sup> Annual Meeting of the Wound Healing Society. Albuquerque, NM. 2001. *Wound Repair Regen.* 2001; 9:158.
29. Smith CE, Roth AC, **Milner SM**. Orthogonal polarization spectral imaging: applications in plastic surgery. ASPS/PSEF/ASMS 70<sup>th</sup> Annual Scientific Meeting. Orlando, FL. Nov 2001.
30. Smith CE, Roth AC, **Milner SM**. Personal digital assistant for calculation of fluid requirements in burn patients. ASPS/PSEF/ASMS 70<sup>th</sup> Annual Scientific Meeting. Orlando, FL. Nov 2001.
31. Andrews K, Mowlavi A, **Milner SM**. 2001 PSEF Scientific Essay Content – D. Ralph Millard MD Investigator Award, First Place: The treatment of alkaline burns by neutralization: an old myth dispelled. ASPS/PSEF/ASMS 70<sup>th</sup> Annual Scientific meeting. Orlando, FL. 2001.
32. Bakir MH, Song Y, Ganz T, Smith CE , **Milner SM**. Human beta defensin 2 levels in burned, uninjured lung. The 67th Annual International Scientific Assembly of the American College of Chest Physicians (ACCP). Philadelphia, PA. Nov 2001.

33. Guha S, **Milner SM**. Modified volar advancement flap for composite digital end losses: the anatomical basis. The Annual Meeting of the American Association of Clinical Anatomists, Nashville TN. June 2001.
34. Smith CE, **Milner SM**. Predicting early burn wound outcome using orthogonal polarization spectral imaging. Proc Amer Burn Assoc, 34<sup>th</sup> Annual Meeting. Chicago, IL. April 2002. *J Burn Care Rehabil.* 2000;23(2 Suppl) S92.
35. **Milner SM**, Smith CE. Orthogonal Polarization Spectral Imaging in Assessment of Burn Wound Healing. Joint Conference of the Wound Healing Society and European Tissue Repair Society. Baltimore, MD. May 2002. *Wound Repair Regen.* 2002;10(2):A54.
36. **Milner SM** et al. The use of split thickness to resurface full thickness (skin defects in the pig model. 11<sup>th</sup> Quadrennial Congress, International Society for Burn Injuries. Seattle, WA. Aug 2002.
37. **Milner SM**, Goodrich J, Barenfanger J, Smith CE. The use of preoperative quantitative burn wound cultures in patients undergoing early surgical excision. American College of Surgeons 88<sup>th</sup> Annual Clinical Congress. San Francisco, CA. 2002.
38. **Milner SM**, Danikas D, Smith CE. The use of dermal split thickness grafts in humans. American College of Surgeons 88<sup>th</sup> Annual Clinical Congress. San Francisco, CA. Oct 2002.
39. **Milner SM**. Use of fibrin glue in the excision, grafting of facial burns. American College of Surgeons 88<sup>th</sup> Annual Clinical Congress. San Francisco, CA. Oct 2002.
40. **Milner SM**, Smith CE, Gulati S. Skin grafting without donor sites. Proc Amer Burn Assoc, 35<sup>th</sup> Annual meeting. Miami, Fl. 2003. *J Burn Care Rehabil.* 2003;24(2 Suppl):S90.
41. Gulati S, Joshi BB, **Milner SM**. The use of JESS in postburn contractures of the hand and wrist: A twenty-year experience. Proc Amer Burn Assoc, 35<sup>th</sup> Annual meeting. Miami, Fl. 2003. *J Burn Care Rehabil.* 2003;24(2 Suppl):S102.
42. Gulati S, Nicholson D, **Milner SM**. The Father Mulcahey effect: The role of the chaplain in the treatment of the burned patient. Proc Amer Burn Assoc, 35<sup>th</sup> Annual meeting. Miami, Fl. 2003. *J Burn Care Rehabil.* 2003;24(2 Suppl):S164.
43. **Milner SM**, Smith CE, Gulati S. E-wheel 3.0: electronic calculation of TBSA% burn, fluid requirements in burn injury. Proc Amer Burn Assoc, 35<sup>th</sup> Annual meeting. Miami, Fl. 2003. *J Burn Care Rehabil.* 2003;24(2 Suppl):S172.
44. Havener G, Roth M, Arakere P, Barenfanger J, **Milner SM**, Khardori N. Effective investigation, control of an aspergillosis outbreak in a regional burn unit. APIC (Association of Practitioners in Infection Control) Meeting. San Antonio, Tx. June 2003.

45. Gulati S, Joshi BB, **Milner SM**. The use of slow distraction for management of chronic contractures of the hand. Mid-West Plastic Surgery Society Meeting, Chicago Illinois, 2004.
46. Gulati S, Bhat S, Bick RJ, Buja M, **Milner SM**. Effects of cytokines, heat shock on defensin levels of cultured keratinocytes. SIU Combined Research Symposium. Springfield, IL. April 2004.
47. Bhat S, Bick RJ, Gulati S, Poindexter BJ, Buja M, **Milner SM**. Expression of human beta defensin 2 in thermal injury. SIU Combined Research Symposium. Springfield, IL. April 2004.
48. Graham JS, Chilcott R, Rice P, **Milner SM**, Hurst C, Maliner B. Wound healing of cutaneous sulfur mustard injuries: Strategies for the development of improved therapies. US Army Medical Defense Review Bioscience. Baltimore MD. 2004.
49. Bhat S, Gulati S, **Milner SM**. The role of glutathione depletion, oxidative stress in mustard toxicity: a review. US Army Medical Defense Review Bioscience, Baltimore MD. 2004.
50. **Milner SM**, Bhat S, Gulati S. Observations on the microcirculation of the human burn using orthogonal polarization spectral imaging. US Army Medical Defense Review Bioscience. Baltimore, MD. 2004.
51. Bhat S, Roger Bick, Poindexter BJ, Gulati S, Buja M, **Milner SM**. Effect of cytokines, heat shock on Human beta defensin 2 levels in cultured keratinocytes. Fourteenth Annual Meeting, of the Wound Healing Society. Atlanta, Georgia. May 2004. *Wound Repair Regen.* 2004;12(1):90.
52. Gulati S, Roger Bick, Bhat S, Poindexter BJ, Buja M, **Milner SM**. Expression of Human beta defensin 2 in the skin appendages of burn wounds. Fourteenth Annual Meeting, of the Wound Healing Society. Atlanta, GA. May 2004. *Wound Repair Regen.* 2004;12(1)91.
53. Bhat S, Savage P, Li C, Taotafa U, Ding B, Guan Q, Gulati S, **Milner SM**. Synthetic Cationic steroid antimicrobials functionally mimic naturally occurring antimicrobial peptides, inhibit burn wound pathogens. Molecular Biology Symposium. Gafton, IL. March 2004.
54. Savage PB, Bhat S, **Milner SM**. Expanding the spectrum of activity of mupirocin to include Gram-negative bacteria using cationic steroid antibiotics. 63rd Annual Meeting of the American Academy of Dermatology. New Orleans, LA. February 2005. *J Am Acad Dermatol.* 2005;53(3):P7.

55. Bhat S, Buja M, Poindexter BJ, Bick R, **Milner SM**. Expression of human beta 1,2 and 3 in thermal injury. US Hupo-2005, 1<sup>st</sup> Annual Symposium. Washington DC. March 2005.
56. Expression of Cathelicidin (LL-37) in thermal injury. Bhat S, Bick RJ, Poindexter RJ, Buja LM, **Milner SM**. *Wound Repair Regen*. 2005;13:138.
57. Antimicrobial activity of synthetic cationic steroids on burn wound pathogens. Bhat S, Savage P, Li C, Taotafa U, Ding B, Guan Q, **Milner SM**. *Wound Repair Regen*. 2005;13:139.
58. Bhat S, Poindexter BJ, Buja ML, Bick RJ, **Milner SM**. Localization of defensins, IL-37 and human neutrophil peptides in normal and burned skin. First Academic Surgical Congress and Society of University Surgeons. San Diego, CA. Feb 2006. *J Surg Res* 2006;130(2):277.
59. Sileshi B, Singh V, Aurora A, Bhat S, **Milner SM**. Pneumatosis intestinalis in burns. First Academic Surgical Congress and Society of University Surgeons. San Diego, CA. Feb 2006. *J Surg Res* 2006;130(2):338.
60. Manahan M, **Milner SM**. The Gillies Approach to Post traumatic Reconstruction in Evidence a Century Later. First Academic Surgical Congress and Society of University Surgeons. San Diego, CA. Feb 2006. *J Surg Res*. 2006;130(2):338.
61. Singh V, Sileshi B, Gerard K, Cooley M, Bhat S, Cockrell G, **Milner SM**. The recliner position: modified operating position for burn surgery. First Academic Surgical Congress and Society of University Surgeons. San Diego, CA. Feb 2006. *J Surg Res*. 2006;130(2):338.
62. Devgan L, Bhat S, **Milner SM**. The pathogenesis of burn wound conversion. First Academic Surgical Congress and Society of University Surgeons. San Diego, CA. Feb 2006. *J Surg Res*. 2006;130(2):338.
63. Azizi ML, Bhat S, Savage P, **Milner S**, Khardori. Topical applications of cationic steroid antimicrobial (CSA-13) in treatment of burn wound colonization by *Pseudomonas aeruginosa* in Burned Mice. 45<sup>th</sup> Interscience Conference of Antimicrobial Agent Chemotherapy (ICAAC). Washington DC, May 2006.
64. Singh VA, Thombs BD, Milner SM. Increased risk of mortality in burn injuries among children under four years old: evidence from the American Burn Association national burn repository database. Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res*. 2006;27(2 Suppl):S61.
65. Thombs BD, Singh VA, **Milner SM**, Mortality in burn injury related to preburn medical conditions. Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res*. 2006;27(2 Suppl):S74.

66. Fauerbach JA, Lezotte D, Holavanahalli R, Wiechman S, Engrav L, Kowalske K, DeLateur B, Thombs B, **Milner S**, Patterson DR. Defining and Tracking Impairment After Burn Injury. Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res.* 2006;27(2 Suppl):S101.
67. Thombs BD, Singh VA, Female gender as a risk factor for mortality from burn injury: Evidence from the National Burn Repository database. Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res.* 2006;27(2 Suppl):S104.
68. Bhat S, Poindexter J, Buja ML, Bick RJ, **Milner SM**. Antimicrobial Peptides in burned skin Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res.* 2006;27(2 Suppl):S112.
69. Bhat S, Gulati S, Husain K, **Milner SM**. Lipoic acid decreases oxidative stress in Sulphur Mustard toxicity. Proc Amer Burn Assoc, 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 2006. *J Burn Care Res.* 2006;27(2 Suppl):S139.
70. Bhat S, Bick RJ, Poindexter BJ, Buja M, **Milner SM**. Perinuclear and nuclear localization of Human Beta Defensin 1 and 2. The Wound Healing Society, 16<sup>th</sup> Annual Meeting. Scottsdale, AZ. April 2006. *Wound Repair Regen.* 2006;14:A54.
71. Bhat S, Devgan L, **Milner SM**. The pathogenesis of burn wound conversion. The Wound Healing Society, 16<sup>th</sup> Annual Meeting. Scottsdale, AZ. April 2006. *Wound Repair Regen.* 2006;14:A55.
72. Bhat S, Gul N, Savage P, **Milner SM**. Cationic steroidal antimicrobials prevent burn wound colonization. The Wound Healing Society, 17<sup>th</sup> Annual Meeting. Tampa FL. May 2007. *Wound Repair Regen.* 2007;15(2):A36.
73. Bhat S, Parihar A, **Milner SM**. Oxidative stress in thermal injury. The Wound Healing Society, 17<sup>th</sup> Annual Meeting. Tampa FL. May 2007. *Wound Repair Regen.* 2007;15(2):A40.
74. Bhat S, Gul N, Graham J, **Milner SM**. Rapid and easy methods for detection of wound infections. The Wound Healing Society, 17<sup>th</sup> Annual Meeting. Tampa FL. May 2007. *Wound Repair Regen.* 2007;15(2):A52.
75. Bhat S, Bick R, Poindexter BJ, Lawyer C, **Milner SM**. Nuclear localization of human beta defensin 1 and 2.. Proc Amer Burn Assoc, 39<sup>th</sup> Annual Meeting. San Diego, CA. March 2007. *J Burn Care Res.* 2007;28(2 Suppl):S115.
76. Blome-Eberwein S, Johnson RM, Miller SF, **Milner SM**. Hydrofiber dressing with silver in the management of split-thickness donor sites. Proc Amer Burn Assoc, 39<sup>th</sup> Annual Meeting. San Diego, CA. March 2007. *J Burn Care Res.* 2007;28(2 Suppl):S106.

77. Thombs BD, Price LA, **Milner SM**. Liver disease in burn injury; Evidence from a national sample of 31,338 adult patients. Proc Amer Burn Assoc, 39<sup>th</sup> Annual Meeting. San Diego, CA. March 2007. *J Burn Care Res.* 2007;28(2 Suppl):S107.
78. McKibben JB, Magyar-Russell GM, Bienvenu OJ, Arcenaux LL, Price LA, Bresnick MG, **Milner SM**, Fauerbach JA. Psychological factors affecting length of hospitalization. Proc Amer Burn Assoc, 39<sup>th</sup> Annual Meeting. San Diego, CA. March 2007. *J Burn Care Res.* 2007;28(2 Suppl):S123.
79. Price LA, McKibben JB, **Milner SM**, Magyar-Russell GM, Klein MB, Hollanvanhalli R, Blakeney P, Lezotte DL, Fauerbach JA. Psychological factors affecting length of hospitalization. Proc Amer Burn Assoc, 39<sup>th</sup> Annual Meeting. San Diego, CA. March 2007. *J Burn Care Res.* 2007;28(2 Suppl):S181.
80. Bhat SM, **Milner SM**. Cationic steroid antimicrobial-13 suppresses endotoxin shock induced by LPS in neonatal rats. *Journal of Leukocyte Biology.* 2007;82:106.
81. Arcenaux LL, Abouhassan W, **Milner SM**, Fauerbach J. The long-term impact of ventilation on physical rehabilitation in burn injuries. Proc Amer Burn Assoc, 40<sup>th</sup> Annual Meeting. Chicago, IL. March 2008. *J Burn Care Res.* 2008;29(2 Suppl):S67.
82. Price LA, **Milner SM**, Renal disease in burn patients. Proc Amer Burn Assoc, 40<sup>th</sup> Annual Meeting. Chicago, IL. March 2008. *J Burn Care Res.* 2008;29(2 Suppl):S129.
83. Abouhassan W, Mayers J, Harris C, Kelly A **Milner SM**, Treatment of addiction withdrawal. Proc Amer Burn Assoc, 40<sup>th</sup> Annual Meeting. Chicago, IL. March 2008. *J Burn Care Res.* 2008;29(2 Suppl):S169.
84. Liu L, Zhang X, Marti GP, Zhang X, Wei X , Zhang H, Nastai M, **Milner S**, Semenza GL, Harmon JW. Non-viral plasmid transfection with hypoxia inducible-1 alpha improves diabetic wound healing. Johns Hopkins Bayview Research Symposium. Baltimore, MD. Dec 7, 2007.
85. Gibson BR, Galiatsatos P, Eaton L, Abu-Hamdah, Elahi D, **Milner S**, Andersen DK. Intensive insulin therapy is associated with an equivalent survival benefit in the Burn Intensive Care Unit (BICU) as in the Surgical Intensive Care Unit (SICU). Johns Hopkins Bayview Research Symposium. Baltimore, MD. Dec 7, 2007.
86. Bhat S, Savage P, **Milner SM**. Antimicrobial peptides in burns and sepsis. Johns Hopkins Bayview Research Symposium. Baltimore, MD. Dec 7, 2007.
87. Zhang X, Xiaofei W, Liu L, Marti G, Ghanamah M, Strom L, Spence R, **Milner S**, Semenza GL, Harmon JW. Increasing severity of thermal injury causes delayed mobilization of circulating angiogenic cells (CACs) and impaired perfusion in a murine burn wound model. *J Am Coll Surg.* 2008;207(3):S69

88. Caruso DM, Johnson M, Blome-Eberwein S, **Milner SM**, Luterman A, Ztredget EE, Kommala D. Phase II, non-comparative trial of carboxymethylcellulose silver dressing reinforced with nylon to treat partial thickness burns. Proc Amer Burn Assoc, 41<sup>th</sup> Annual Meeting. San Antonio, IL. March 2009. *J Burn Care Res.* 2009;30 (2 Suppl):S52.
89. Gerold K, Biswas S, Jackson L, Dhanjani K, Price LA, **Milner SM**. Semi-open tracheostomy in burn patients: a safer alternative to conventional percutaneous tracheostomy. A retrospective study. Proc Amer Burn Assoc, 41<sup>th</sup> Annual Meeting. San Antonio, IL. March 2009. *J Burn Care Res.* 2009;30 (2 Suppl):S58.
90. Fauerbach JA, Mason ST, Gould N, Prosciak M, Milner S, Weichman-Askay R, Holavanahalli R, Lezotte D. Do anxiety, depression and pain have prolonged impact on burn-related impairment and disability? Proc Amer Burn Assoc, 42nd Annual Meeting. Boston, MA. March 2009. *J Burn Care Res.* 2010;31 (2 Suppl):S63.

## **Inventions**

- 1990 The Burn Wheel: A mechanical device for rapid calculation of fluid resuscitation in burns.
- 2001 e-Wheel 2.0: The Burn Wheel has been refined as a computer program which runs on a hand held device which automates the calculation of percent surface area burned and fluid requirements.
- 2003 e-Wheel 3.0: Improved version of the Palm Top Computer Application with more accurate measurement of body surface area.

## **Extramural Funding**

(Principal Investigator unless otherwise noted)

### **Current**

- 2008-2013 Combat Wound Initiative  
Jackson Foundation, Department of Defense  
\$2,200,000
- 2006-2011 NIH P20  
Hypoxia Inducible Factor (HIF-1) regulated progenitor cell recruitment in burn wound healing.  
\$6,000,000  
Co-investigator  
Gregg L Semenza /John W Harmon, Principal Investigators
- 2006-2012 Prospective Evaluation of the Effects of Topical Therapy with Sulfamylon For 5% Topical Solution on Autograft Healing in Subjects with Thermal

Injuries Requiring Meshed Autografts: A Comparison to a Historical Control Group Company: Mylan-Kendle

- 2007-2012 Johns Hopkins University Burn Injury Model System (H133A0070045); U.S. Department of Education, Office of Special Education and Rehabilitation Services, National Institute on Disability and Rehabilitation Research
1. Randomized Controlled Trial of an Early CBT Intervention to Prevent Chronic Psychopathology.
  2. Prospective, Longitudinal Cohort Study of Patients with Major Burns: Outcomes at 2-, 5- and 10- Years Postburn.
  3. Randomized, Controlled Trial of an Augmented Exercise Program to Prevent or Reduce Generalized Deconditioning.
  4. Using Latent Growth Curve Analysis to test etiologic models of Body Image Dissatisfaction and Social Adjustment.
- Co-investigator  
James Fauerbach, Principal Investigator  
\$1,812,500
- 2008-2013 Genzyme Biosurgery  
Humanitarian Use Device (CEA).
- 2009 –2011 Stemnion Inc.  
Clinical trial Phase I/II. ACCS (Amnion-Derived Cellular Cytokine Solution) Versus Standard Care in Treating Partial Thickness Burns
- 2009-2014 PRORP Proposal Intervention strategies for acute pain management and rapid re-epithelialization in skin graft donor sites: a prospective randomized controlled clinical trial.  
Combat Wound Initiative  
Jackson Foundation, Department of Defense  
\$2,500,000

**Previous**

- 1997-1998 Department of Surgery New Faculty Grant  
Split dermal grafts in an animal model.  
\$3000
- 1997-1998 Memorial Medical Center Grant (SIU 6-24122-99)  
The role of human defensins in burn sepsis.  
\$5000
- 1997-1998 Dow Hickam Pharmaceuticals' Wound Healing Fellowship Grant (SIU 6-21520-98)  
The role of human defensins in the pathogenesis and treatment of burn wound infection.  
\$20,000

1997-2005	Memorial Medical Center Contract Skin tissue culture laboratory. \$480,000
1999-2001	Ortho-McNeil Pharmaceuticals (SIU 6-25170-00) Clinical evaluation of Regranex for the treatment of full thickness diabetic neuropathic foot ulcers. \$75,000
2000-2004	Memorial Medical Center Foundation (SIU 6-25997-00) The regulation of beta defensin in the cultured human keratinocyte. \$30,000
2000-2001	Lederle Pharmaceuticals Grant The use of RAST and skin testing in the determination of penicillin allergy. \$3500
2000-2001	SIU Rural Health Initiative Regional Teleburn Network: An interactive telecommunications network for burn care across Illinois. \$219,780
2003-2004	Wyeth Pharmaceuticals Development of an open access repository. \$10,000
2003-2005	US Army Medical Research Institute of Chemical Defense Grant (Contract No. TCN 03-093/DAAD 19-02-D-0001) Role of lipoic acid and antioxidant systems in the healing of mustard induced wounds in a rat model. \$40,500
2004-2005	Central Research Committee (SIU-200508) Topical applications of cationic steroid antimicrobials in treatment of burn wounds. \$15,000
2004-2006	Baxter Health Care Corporation. Protocol No. 550201 (SIU-24689-04) A study to assess the safety and efficacy of fibrin sealant with 4iu/ml thrombin to adhere tissues and improve wound healing. Multi center clinical trial. \$80,000
2004-2007	International Science & Technology Center (ISTC) Project Proposal No. 2734 Production of highly active human blood plasma butyrylcholinesterase preparation by gene engineering methods to create protective means against poisoning by organophosphorous cholinesterase inhibitors.

\$816,314.

U.S. Collaborator.

Anikienko K Aleksandrovitch, Institute of Organic Chemistry and Technology Moscow, Russian Federation, Principal Investigator

- 2005-2006 International Association of Firefighters Grant  
Development of a world wide survey tool for investigation of burn injuries.  
Co-investigator, John O Kucan, Principal Investigator
- 2006-2007 Ceragenics Pharmaceuticals  
Topical application of cationic steroid agents on burn wounds.  
\$40,000
- 2006-2008 Convatec (Protocol No. CW-0142-05-A080)  
A phase IIIb, randomized, comparative evaluation of two Aquacel Ag protocols of care for the management of donor sites.
- 2006-2008 ZymoGenetics (Protocol No. 499E02)  
A phase 2 study of recombinant human thrombin (rh Thrombin), administered using a spray applicator in subjects undergoing autologous skin grafting following burn or traumatic skin injury.
- 2006-2008 Wyeth (Protocol TyGer-900)  
A multicenter, randomized, open-label comparison of the safety and efficacy of Tigecycline with that of ampicillin-sulbactam or amoxicillin-clavulanate to treat complicated skin and skin structure infections.

## **EDUCATIONAL ACTIVITIES**

### **Teaching**

- 1989 Tutor for Royal College of Surgeons of England FRCS course
- 1984 -1994 Lectures to Territorial (Reserve) and Regular Army Medical Units
- 1997- 2005 Burn Fellowship Program Director, SIU School of Medicine
- 1998, 1999, Excellence in Teaching Award, Department of Surgery, SIU School of  
2003 & 2004 Medicine
- 1999-2000 Clerkship Director Department of Surgery SIU School of Medicine
- 2001-2002 SIU School of Medicine Graduate Education Committee
- 2001-present Plastic Surgery Education Foundation In-service Examination Committee
- 2003-2007 Created the educational section of the Journal of Burns and Wounds
- 2008-present Created the educational section of ePlasty. <http://eplasty.com>
- 2005-2006 Established model for e-learning with The Egyptian National Scientific and Technical Information Network, Cairo Egypt.

2005-present Burn Fellowship Program Director, Johns Hopkins University School of Medicine  
2006-present Established the John's Hopkins Military Burn Course

## **CERTIFICATION**

### **Medical Licensure**

2005-present Maryland License # D0062727

### **Boards, other specialty certification**

1977 Membership of the Royal College of Surgeons of England,  
Licentiate of the Royal College of Physicians (M.R.C.S., L.R.C.P.)  
1978 General Medical Council of the United Kingdom  
1992 European Board in General Surgery (No. 2394819)  
1998 American Board of Plastic Surgery (No. 5654)  
1999 Fellowship of the American College of Surgeons (F.A.C.S.)  
2009 American Board of Plastic Surgery (recertification)

## **ORGANIZATIONAL ACTIVITIES**

### **Institutional Administrative Appointments**

#### **Hospital Committees**

##### *Memorial Medical Center Springfield, IL*

1998-2005 Intensive Care Committee, Memorial Medical Center  
1998-2005 Quality Monitoring Committee, Memorial Medical Center  
2002-2005 Executive Committee/Department Chairmen/Medical Directors, Memorial  
Medical Center

##### *Johns Hopkins*

2005-present Johns Hopkins Bayview Medical Center Medical Board  
2005-present Operating Room Committee  
2005-present Metropolitan Fire Fighters Board  
2005-present Joint Practice Committee  
2005-present Community Fund Board  
2005-present Johns Hopkins Bayview Medical Center Ethics Committee  
2005-present Member Board of Directors Johns Hopkins Burn Center Fund

#### **University Committees**

##### *SIU*

1999-2005 Clinical Competency Examination Committee  
1999-2000 Committee on Clerkships and Electives  
2001-2002 School of Medicine Graduate Education Committee  
2001-2003 Faculty Senate

2002-2005	Executive Committee
2002-2003	Faculty Council (President-elect)
2003	Search Committee for Associate Dean for Curriculum SIU School of Medicine
2002-2003	Faculty Council (President)
2004-2005	Faculty Council (Past President)
2004-2005	Graduate Medical Education Committee
2004-2005	Tenure and Promotion Committee
2004-2005	Library Advisory Committee

*Johns Hopkins*

2006	Web Strategy Advisory Board
2009	Division Chief, Plastic Surgery Search Committee

## Editorial Activities

### Editorial Board Appointments

Founding Editor Journal of Burns and Wounds  
 Founding Editor-in-Chief ePlasty (open access journal of plastic surgery) <http://eplasty.com>

### Journal Peer Review Activities

Plastic and Reconstructive Surgery, Wound Repair and Regeneration, Pharmacological Research, Molecular and Cellular Biochemistry, Archives of Surgery, Life Science, Journal of Surgical Research, Journal of Burn Care and Research, Public Library of Science (Medicine), Annals of Plastic Surgery, Infection and Immunity, Journal of the American College of Surgeons, Journal of Biomedicine and Biotechnology, Critical Care Medicine.

### Grant Review Committees

1999-2000	Central Research Committee SIU School of Medicine
2000-2005	Department of Surgery Research Committee SIU School of Medicine
2003-present	US Army Medical Research Institute of Chemical Defense Scientific Steering Committee ( <i>Wound Healing Section</i> )
2004-present	Israeli Science Foundation
April 12, 2006	Blue Ribbon Panel, Medical Chemical Countermeasures. Washington DC.
August 2006	NIH NINDS Reviewer for Special Emphasis Panel (Countermeasures against Chemical Threats)
August 2007	Dutch Burn Foundation

### **Professional Societies**

American Burn Association, American Medical Association, Special Operations Medical Association, Blocker Lewis Plastic Surgery Society, Association for Surgical Education, American Society of Plastic Surgeons, The International Society for Burn Injuries, American Association for Hand Surgery, Wound Healing Society, Plastic Surgery Research Council, American Association for the Advancement of Science, American College of Surgeons, Association of Academic Chairmen of Plastic Surgery, American Diabetes Association, American Association of Plastic Surgeons, Baltimore Academy of Surgery.

### **Conference Organizer**

Third Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, Illinois. April 2, 1998  
Fifth Annual Wound Care Symposium, SIU School of Medicine/ Memorial Medical Center. Springfield, Illinois. March 31, 2000  
Sixth Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, Illinois. March 27, 2001  
Workshop in Fluid Resuscitation in Burns. SIU School of Medicine/Memorial Medical Center. Springfield, Illinois. May 9, 2002  
Eighth Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, Illinois, March 27, 2003  
Ninth Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, Illinois. April 29, 2004  
World Burn Congress Committee. Baltimore, MD. August 22-24, 2005  
Fluid Resuscitation Symposium. Johns Hopkins. Baltimore MD. March 6, 2006

### **Consultancies, Advisory Committees**

1990-1994      Ultrasonic Sciences Limited, Hampshire, England  
2002-2005      State of Illinois Department of Professional Regulation  
2000-2003      American Burn Association: Organization and Delivery of Care Committee  
2003-present      The Egyptian National Scientific & Technical Information Network and the Educational Hospitals and Institutes Cairo, Egypt  
2003-2005      Millennium Research Laboratories, Inc. Woburn, MA  
2004-2005      Kinetic Concepts Inc (KCI) Scientific Advisory Board, San Antonio, TX  
2006-2007      Lynntech, Inc. TX. Phase 1 SBIR. Development of novel multifunctional dressing for treatment of vesicant wounds  
Sept 2005      Wound Healing Focus Group: US Clinical and Scientific Round Table meeting. Vienna, Austria.

2007-present Honorary Civilian Consultant Advisor to the British Army in Plastic Surgery and Burns

### **Humanitarian Aid**

2004 -present Founding Member, Board of Directors of the African Medical Foundation  
Apr 2002 Lima Fireworks Disaster (*Request by the Government of Peru*)  
2006-present Member, Board of Directors of the International Children's Surgical Foundation  
11-14 Feb 2009 Fuel tanker fire in Nakuru and the Nakumatt Supermarket Fire in Nairobi tragedies (*Request by the Government of Kenya*)

### **HONOURS AND AWARDS**

1969 Guy's Hospital Combined Medical and Dental Scholarship  
1971 General Subjects Award (*Medicine, Surgery, Pathology and Bacteriology*)  
1972 Newland-Pedley Traveling Scholarship to Finland  
1972 David Frank Sturdee Award (*Dental Surgery*)  
1975 Traveling Scholarship to Harvard Medical School  
1991 Smith & Nephew Foundation Research Bursary: *Shriners Burns Institute, Boston, MA. & US Army Institute of Surgical Research, Fort Sam Houston, TX.*  
1997 American Burn Association Traveling Fellowship Award  
1998, 1999, 2003 Excellence in Teaching Award, Department of Surgery, SIU  
& 2004 School of Medicine  
2001 Plastic Surgery Education Foundation Investigator Award: First Prize  
2002 Department of Surgery Faculty Research Award: First Prize  
2007 Mitchiner Memorial Lecturer, Royal Military Academy, Sandhurst, Camberly, England.

### **INVITED TALKS**

1. Management of mass chemical and burn casualties. Foxtrot Support Company, United States Navy. Saudi Arabia. November 15, 1990
2. Wounds in a theatre of war. 13 Squadron Royal Dragoon Guards. Saudi Arabia. November 27, 1990.
3. The Burn Calculator. Health Matters; BBC World Service. London, England. December 20, 1993.
4. Resuscitation of the burn patient. Anaesthetic Society, St. Bartholomew's Hospital. London, England. February 23, 1994.

5. Recent advances in assessment and management of Burns. The Royal Society of Medicine, United Services Section. London, England. January 20, 1995.
6. The clinical record: burn resuscitation with hypertonic saline. Department of Surgery, University of Texas Health Science Center. Dallas, TX. July 30, 1996.
7. The Management of Scars. Workers' Compensation Claims Association. Bloomington, IL. September 30, 1997.
8. Burn patients: The Gulf War. Chicago Medical Society, Midwest Clinical Conference. Chicago, IL. February 2, 1998.
9. Wound healing: Practical Aspects. Third Annual Wound Care Symposium SIU School of Medicine/Memorial Medical Center. Springfield, IL. April 2, 1998.
10. Burn resuscitation in the Gulf War. Department of Surgery Grand Rounds. SIU School of Medicine. Springfield, IL. April 25, 1998.
11. Fluid resuscitation in burns. Emergency Medical Services Conference. Memorial Medical Center. Springfield, IL. October 12, 1998.
12. Field management of the burned casualty. Special Operations Medical Association. Tampa, FL. December 8, 1998.
13. Defensins: What they are, and what is their role? An Overview. Bertek Pharmaceutical Advisory Panel Meeting. Houston, TX. February 20, 1999.
14. The management of burns in a modern European battlefield. Department of Surgery Grand Rounds. SIU School of Medicine. Springfield, IL. June 10, 1999.
15. The Role of the Shriners movement in the development of burn care. Ansar Shriners Temple. Springfield, IL. September 29, 1999.
16. Burns as wounds. Fifth Annual Wound Care Symposium SIU School of Medicine/Memorial Medical Center. Springfield, IL. March 31, 2000.
17. Initial management and transfer of the seriously ill burned patient. 1<sup>st</sup> Annual Southern Illinois Trauma Conference/ Illinois Chapter, American College of Surgeons Meeting. Springfield, IL. June 3, 2000.
18. From the desert to the emergency room: A simple safe method for early post burn fluid resuscitation. International Symposium and Course on Burns and Fire Disaster Management. Jerusalem, Israel. February 14, 2000.
19. Melanoma reconstruction. Department of Surgery Grand Rounds. SIU School of Medicine. Springfield, IL. November 30, 2000.

20. Role of antioxidant systems in the healing of sulfur mustard systems. US Army Medical Research Institute of Chemical Defense. Aberdeen Proving Ground, MD. September 14, 2001.
21. Telemedicine. Southern Illinois Teleburn Network inaugural ceremonies. Springfield, IL. November 8, 2001.
22. Press conference re: creation of teleburn network – WICS, WAND, WCIA, SJR, WUIS, Capitol Radio Group, WFMB, WMAY, Carbondale Radio show and WTAX. November 1, 2001
23. The effects of diabetes on wound healing. Sixth Annual Wound Care Symposium SIU School of Medicine/Memorial Medical Center. Springfield, IL. March 27, 2001
24. The treatment of severely burned patients. Radio Health Journal representing 350 radio stations nationwide. IL. November 2, 2001.
25. Current treatment of acute burns. Department of Surgery Grand Rounds SIU School of Medicine. Springfield, IL. March 7, 2002.
26. Pre-hospital management of the burn patient. S.A.M.I.C. EMS. Prairie Heart Institute, St John's Hospital. Springfield, IL. May 11, 2002
27. Abdominoplasty. WICS Channel 20 News, NBC Affiliate in Springfield, IL. May 8, 2002.
28. The use of fibrin sealant in skin grafting. Hemacure Corporation National Sales Meeting. Miami, FL. November 13, 2002.
29. Evaluation and general management of pressure ulcers. Eighth Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, IL. March 27, 2003.
30. Something is cooking in your neighborhood. Department of Medicine Grand Rounds SIU School of Medicine. Springfield, IL. April 29, 2003.
31. Latest development in burn management. Mini Med School, SIU School of Medicine. Springfield, IL. Feb 24, 2004.
32. The future of medical publishing. Surgery Faculty SIU School of Medicine. Springfield, IL. March 10, 2004.
33. Rounds with the professors - computer applications. American Burn Association 36<sup>th</sup> Annual Meeting. Vancouver, Canada. March 24, 2004.

34. Diabetes and wound healing. Ninth Annual Wound Care Symposium, SIU School of Medicine/Memorial Medical Center. Springfield, IL. April 29, 2004.
35. Revolution in scientific publishing. Telecom Africa, sponsored by the United Nations. Video Conference to Academy of Scientific Research and Technology. Cairo Egypt. May 7, 2004.
36. Observations on the microcirculation of the human burn using orthogonal polarization spectral imaging. US Army Medical Defense Review Bioscience. Baltimore, MD. May 16, 2004.
37. Emergency care of the burned patient. Associated Fire Fighters of Illinois. Decatur, IL. June 16, 2004.
38. Burns: initial care for optimal outcomes. 15<sup>th</sup> Annual David D Miller, MD Memorial Symposium. Springfield, MO. November 5, 2004.
39. Advances in burn management. Wound Healing: Science and Industry. St Thomas, US Virgin Islands. December 10, 2004.
40. The challenge of burns SIU 1997-2005. Department of Surgery Grand Rounds. SIU School of Medicine. Springfield, IL. January 27, 2005.
41. Comprehensive management of facial burns. The plastic surgery role. American Burn Association 37<sup>th</sup> Annual Meeting. Chicago, IL. May 2005.
42. Cutaneous sulfur mustard injuries. American Burn Association 37<sup>th</sup> Annual Meeting. Chicago, IL. May 2005.
43. Innovations in burn care. Department of Surgery Grand Rounds. St Agnes Hospital. Baltimore, MD. Oct 19, 2005.
44. The role of plastic surgery in the management of cutaneous ulcers. Maryland Dermatological Society Clinical Conference. Baltimore, MD. November 9, 2005.
45. The ethics of facial transplantation. American Burn Association 38<sup>th</sup> Annual Meeting. Las Vegas, NV. April 6, 2006.
46. Fluid resuscitation. Maryland Institute for Emergency Medical Service Systems Conference. Baltimore, MD. April 29, 2006.
47. Management of the burn wound. Wound/Ostomy Conference, National Naval Medical Center. Bethesda, MD. July 21, 2006.
48. Face transplantation: an ethical dilemma. Trauma Conference. Johns Hopkins. Baltimore. MD. Nov 15, 2006.

49. A leap in the dark: face transplantation. Professorial rounds. University of Medicine and Dentistry of New Jersey. Newark NJ. May 14, 2007.
50. Advances in burn care since Evans and Hinds. S Dawson Theogaraj Memorial Lecture. Virginia Commonwealth University, Richmond, VA. June 21, 2007.
51. Management of Burns in a modern conflict. The Mitchiner Memorial Lecture. Royal Military Academy Sandhurst. Camberly. England. October 10, 2007.
52. The need for a non-immunogenic off the shelf skin. Stemnion, Inc. Marriott Headquarters, Bethesda, MD. October 23, 2007.
53. Management of the burn wound. Dermatology Grand Rounds, Johns Hopkins, Baltimore, MD. January 7, 2009.
54. Treatment of invasive burn sepsis. Kenyatta National Hospital, Nairobi, Kenya. February 13, 2009.
55. Lessons learned from conflicts and civilian disasters. Grand Rounds, Shriners Burns Institute, Harvard Medical School, Division of Plastic Surgery. November 4, 2009.