

BIOGRAPHICAL SKETCH

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

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|--|--|-----------|---------------------------|
| NAME Barbara A. Gaines, MD | POSITION TITLE Professor of Surgery University of Pittsburgh School of Medicine Children's Hospital of Pittsburgh of UPMC | | |
| eRA COMMONS USER NAME (credential, e.g., agency login) GAINBA | | | |
| EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i> | | | |
| INSTITUTION AND LOCATION | DEGREE <i>(if applicable)</i> | MM/YY | FIELD OF STUDY |
| Brown University- Providence RI | BA | 1986 | History and Biology |
| University of Virginia-Charlottesville, VA | MD | 1990 | Medicine |
| University of Pittsburgh School of Med.-Pgh. PA | Certificate | 2002 | Clinical Research |
| Vanderbilt University- Nashville, TN | Post Graduate | 1990-1991 | Intern, General Surgery |
| Vanderbilt University- Nashville, TN | Post Graduate | 1991-1993 | Resident, General Surgery |

Education/Training Continued:

University of Pittsburgh School of Medicine-Pittsburgh, PA

Research Fellow 1993-1995,
Cellular Therapeutics

Vanderbilt University-Nashville, TN

Resident 1995-1997, General Surgery

Vanderbilt University-Nashville, TN

Resident 1997-1998, Trauma & Critical Care

Children's Hospital of Pittsburgh- Pittsburgh, PA

1st Year Resident 1998-1999, Pediatric Surgery

Children's Hospital of Pittsburgh-Pittsburgh, PA

Chief Resident 1999-2000 Pediatric Surgery

University of Pittsburgh, Pittsburgh, PA

Marshall W. Webster Physician Leadership
Program, 2014 Certificate Business**A. Personal Statement**

I am the Director of the Benedum Pediatric Trauma and Injury Prevention Programs and the Clinical Director of the Division of Pediatric General and Thoracic Surgery at the Children's Hospital of Pittsburgh. I am also the Chair of the Pediatric Committee of the American Association for the Surgery of Trauma (AAST), Past-President of the Pediatric Trauma Society (PTS), Past-President of the Board of the Injury Freed Coalition for Kids (IFCK) and a member of the National Committee on Trauma of the American College of Surgeons (ACS-COT). I am a consultant for the American Board of Surgery, Pediatric Board in the content area of pediatric trauma and critical care. I have served as Principal Investigator in a number of clinical/translational research projects, and have mentored junior faculty, residents, and medical students in such projects. I have also reviewed grants for various organizations and foundations for pediatric trauma and injury prevention related research. In addition, I am the Program Director of the Pediatric Surgery Training Program at the Children's Hospital of Pittsburgh of UPMC.

Positions and Honors

2015-Present- University of Pittsburgh School of Medicine, Professor, Department of Surgery (Pediatric), Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA

2012-Present- University of Pittsburgh Medical Center, Clinical Director, Pediatric General and Thoracic Surgery

2008-Present-University of Pittsburgh Medical Center, Program Director, Medical Education Program Pediatric Surgery, Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA

2007-2015-University of Pittsburgh School of Medicine, Associate Professor, Department of Surgery (Pediatric), Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA
 2006-Present- Children's Hospital of Pittsburgh of UPMC, Surgical Director, Pittsburgh, PA, Pediatric Intensive Care Unit
 2004-Present-Children's Hospital of Pittsburgh of UPMC, Director Benedum Pediatric Trauma Program, Division of Pediatric Surgery, Pittsburgh, PA
 2004-2008-University of Pittsburgh and Hospitals of the University Health Center of Pittsburgh, Residency Program Director, Surgical Critical Care, Pittsburgh, PA (ACGME approved 6/2004)
 2002-2004- Children's Hospital of Pittsburgh of UPMC, Division of Pediatric Surgery, Pittsburgh, PA Assistant Director, Benedum Pediatric Trauma Program
 2000-2008- University of Pittsburgh School of Medicine Department of Surgery (Pediatric), Children's Hospital of Pittsburgh, Pittsburgh, PA , Assistant Professor
 2000-Present- Children's Hospital of Pittsburgh Division of Pediatric Surgery, Pittsburgh, PA, Attending Surgeon
 2000-Present- Children's Hospital of Pittsburgh Division of Pediatric Surgery, Pittsburgh, PA Director, General Surgery Resident Education
 2000-2006- Children's Hospital of Pittsburgh, Pittsburgh, PA. Surgical Director, Neonatal Intensive Care Unit

Honors

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|---|-----------------|
| Joel Roslyn Invited lecture, Society of University Surgeons | 2015 |
| Inaugural Medical Student Research Mentoring Merit Award University of Pittsburgh Medical School | 2013 |
| Top Doctors Award in Pediatric Surgery, Pittsburgh Magazine (Top 159 Doctors in 49 Specialties) | 2010-2015 |
| Research and Education Foundation Scholarship, American Association For the Surgery of Trauma (AAST) | 2007 |
| Four-Star Customer Service Award, Professional Research Consultants, Inc. | 2007 |
| Outstanding Surgeon, Critical Care Staff, Children's Hospital of Pittsburgh | 2000-2004, 2006 |

PROFESSIONAL and SCIENTIFIC ASSOCIATIONS

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|---|--------------|
| American Surgical Association | 2014-present |
| Southern Surgical Association | 2012-present |
| Society of University Surgeons | 2007-present |
| American Association for the Surgery of Trauma (AAST) | 2005-present |
| Association for Surgical Education | 2005-present |
| Fellow, American College of Surgeons | 2004-present |
| Specialty Fellow, American Academy of Pediatrics | 2004-present |
| American Pediatric Surgical Association (APSA) | 2004-present |
| Eastern Association for the Surgery of Trauma (EAST) | 2003-present |
| Surgical Infection Society (SIS) | 2002-present |
| Injury Free Coalition for Kids (IFCK) | 2001-present |
| Association for Academic Surgery (AAS) | 2001-present |
| Southeastern Surgical Congress | 1996-present |
| Society of Critical Care Medicine (SCCM) | 1992-present |
| Association of Women Surgeons | 1989-present |

B. Publications (chosen from 60 publications)

1. Juang D, Felix A, Miller K, **Gaines BA**. Sledding Injuries: A Rationale for Helmet Usage. J Trauma-Injury Infection & Critical Care. Nov 2011Volume 69 Issue 4 pp S2006-S2008.
2. **Gaines, B.A**, Welcome to the proceedings of the 2010 Annual Meeting of the Injury Free Coalition for Kids. J Trauma 2011. 71 (5 Suppl 2): S504.
3. Juang, D., M. Sippey, **Gaines, B.A**. Non-bite dog-related injuries: an overlooked injury mechanism in

the pediatric population. J Trauma **71**(5 Suppl 2): S531-3 Nov 2011.

4. Vitale MA, Mertz KJ, **Gaines B.A**, Zuckerbraun NS. Morbidity associated with golf-related injuries among children: findings from a pediatric trauma center. Pediatr Emerg Care 2011 Jan;27(1):11-2.
5. Guglani L, Broyles, J, **Gaines B.A**, Finder, JD. Chest Mass in a 13-year-old boy. Arch Dis Child 2012 Aug; 3 97(8):747.
6. O'Brien SH, Klima J, **Gaines BA**, Betz S, Zenati MS. Utilization of low-molecular-weight heparin prophylaxis in pediatric and adolescent trauma patients. J Trauma Nurs. 2012 April-Jun;19(2):117-21.
7. Falcone RA Jr, Haas L, King E, Moody S, Crow J, Moss A, **Gaines B**, McKenna C, Gourlay DM, Werner C, Meagher DP Jr, Schwing L, Garcia N, Brown D, Groner JI, Haley K, Deross A, Cizmar L, Armola R. A multicenter prospective analysis of pediatric trauma activation criteria routinely used in addition to the six criteria of the American College of Surgeons. J Trauma Acute Care Surg. 2012 Aug; 73(2):377-384.
8. Shah SR, McKenna C, Miller M, Schultz B, Upperman JS, **Gaines BA**. Safety Factors related to all-terrain vehicle injuries in children. J Trauma Acute Care Surg. 2012 Oct;73(9 Suppl 3) S273-6.
9. Tavarez, M., Saladino R, **Gaines BA**, Manole, M, Prevalence, clinical features and management of pediatric magnetic foreign body ingestions. J Emerg Med. 2013 **44**(1): p. 261-8
10. McKenna, C, **Gaines BA**, Hatfield C, Helman, S, Meyer, L, Rennick C, Schenkel K, Zaremski J. Implementation of a Screening, Brief Intervention, and Referral to Treatment Program Using the Electronic Medical Record in a Pediatric Trauma Center. J Trauma Nurs. 2013 Jan;20:16-23.
11. Dunkleberger J, Branstetter B 4th, Lincoln A, Sippey M, Cohen M, **Gaines B**, Chi D. Pediatric temporal bone fractures: current trends and comparison of classification schemes. Laryngoscope 2014 Mar; 124 (3) 781-4 doi: 10.1002/lary.21891.
12. Postier, Russell G. **Gaines B**, et al. "Perceptions of Graduating General Surgery Chief Residents: Are They Confident in Their Training? Discussion." J American College of Surgeons 2014 **218** (4): 703-706.
13. **Gaines BA**, Hansen K, McKenna C, McMahon M, Meredith W, Mooney D, Snow S, Upperman J. Report from the Childress Summit of the Pediatric Trauma Society, April 22Y24, 2013. J Trauma Acute Care Surg, 2014. **77**(3): p. 504-9.
14. Leeper, CM, Nasr I, McKenna C, Berger RP, **Gaines BA**. Elevated admission INR strongly predicts mortality in victims of abusive head trauma. J Trauma Acute Care Surg. 2015 Dec 26;PubMed PMID: 26713972.
15. Brown JB, Leeper CM, Sperry JL, Peitzman AB, Billiar TR, **Gaines BA**, Gestring ML. Helicopters and injured kids: Improved survival with scene air medical transport in the pediatric trauma population. J Trauma Acute Care Surg. 2016 Jan 21;PubMed PMID: 26808033.
16. Leeper CM, Kutcher M, Nasr I, McKenna C, Billiar T, Neal MD, Sperry J, **Gaines BA**. Acute traumatic coagulopathy in a critically-injured pediatric population: definition, trend over time and outcomes. J Trauma Acute Care Surg. In Press.

D. Research Support

Active and Inactive Protocols

- | | |
|----------|---|
| 12/22/16 | Pediatric Pancreatic Trauma- Retrospective Institutional Review Protocol #: 15110008 |
| 7/1/16 | Evaluation of the Efficacy and Safety of Pediatric Resuscitative Thoracotomy in Trauma Protocol# 15060637 |
| 2/11/15 | Coagulopathy after trauma in critically injured pediatric patients Protocol #15010156 |
| 9/22/14 | Massive Transfusion in Children (MATIC) Protocol # 14080188 |
| 9/18/14 | Evaluation of pediatric trauma triage Protocol #14060374 |
| 9/18/14 | Zip Line Injuries in the Pediatric Population Protocol #14080423 |

7/03/14 The Impact of an Imaging Guideline on the Diagnosis of Solid Organ Injuries Protocol #14050295
4/03/14 PASS-Pediatric Abdominal Sonogram Study Protocol #14020062
7/18/12 Kohl's Safety Center Program Evaluation Project Protocol #12040013
10/20/14 Examine the utility of direct laryngoscopy and bronchoscopy with esophagoscopy in patients with pneumomediastinum. Protocol #14100059
3/25/10 Impact of booster seat legislation on children aged 4 through 7 involved in motor vehicle crashes from 2000 through 2006 in Pennsylvania Protocol #: 10030052
12/1/09 Translation of Alcohol Screening and Brief Intervention Guidelines to Pediatric Trauma Protocol #PRO10060382
8/07/09 PASS—Pediatric Abdominal Sonogram Study Protocol #: 08100211
7/30/09 Television-related injuries Protocol #: 09070368
7/24/09 Abdominal Compartment Syndrome in the Pediatric Population Protocol #: 09060198
6/29/09 Clostridium difficile infection in Children Protocol #: 09060038
6/08/09 Complications of Intraosseous Line Placement in Pediatric Trauma Patients Protocol #: 09060001
5/22/09 The Quality of Life in Pediatric Patients Sustaining Major Trauma is Impaired Both Short Term and Long Term Protocol #: 0605097
4/01/09 Pediatric Blunt Carotid Injuries: Increased Incidence or Improve Detection? Protocol #: 09020070
5/09/08 Injury patterns for All-Terrain Vehicles, Motorbikes, and Bicycles Protocol#: 08030466
5/02/08 LMWH Prophylaxis in Pediatric and Adolescent Trauma Patients Protocol #: 08040417
3/20/08 Retrospective Review of the Incidence of Deep venous Thrombosis in Pediatric Trauma Patients Protocol #: 08020243
2/26/08 Adolescent Trauma at Pediatric and Adult Trauma Centers Protocol #: 07120045

Funded Research/Prior Support

2006 - 2007 A Prospective, Randomized, Controlled Evaluation of Fibrin Sealant 2 (FS2) as an Adjunct to Hemostasis During Retroperitoneal or Intra-Abdominal Surgery. Protocol #: 0606057-0606 Source: Ethicon, Inc.; Protocol 400-05-006 Role: PI

2003 - 2004 Open-Label, Controlled, Comparative, Randomized, Prospective Clinical Study of Coated VICRYL* PLUS ANTIBACTERIAL (Polyglactin 910) Suture vs Coated VICRYL* (Polyglactin 910) Suture to Assess Intra-Operative Handling, and Wound Healing Characteristics Over Full Absorption Time in General Surgery Procedures in the Pediatric Population Source: Ethicon, Inc.; Protocol 2003-002 Role: Co-investigator, PI: Henri R. Ford, M.D.

2002 - 2004 National Pediatric Trauma Registry Grant, Registry Design Priority Area NTRC, 1H72-MC-0000401 Source: Health Resources Services Administration/Maternal Child Health Bureau (HRSA/MCHB) Emergency Medical Services for Children Program (EMSC). Role: Medical Co-investigator PI: Laura Cassidy Schall, PhD.

2001 - 2006 Injury Free Coalition for Kids Program Site Source: The Robert Wood Johnson Foundation Role: PI

2010 - 2011 PST- Pediatric Computerized Cognitive Screen Following Source: Psychology Software Tools, Role: Co-Investigator

Injury Prevention Grants:

Kohl's Cares Hospital Program: Hard Head's Injury Prevention Program
Role: Site Director; Amount: 2015 \$177,286
Allstate Foundation: Teen Driving Education Programs
Role: Site Director; Amount: 2014 \$35,000