

# Andrew J.L. Gear

## PERSONAL DATA

**Address:** 7725 Ballantyne Commons Parkway, Suite 101  
Charlotte, NC 28277

**Telephone:** Work (704) 909-4800

**Email:** [agear@refineinstitute.com](mailto:agear@refineinstitute.com)

**Birthdate:** May 19, 1968

**Birthplace:** Charlottesville, Virginia

**Marital Status:** Married

## EDUCATION

**High School:** Western Albemarle High School 8/82-6/86  
Crozet, Virginia

**Undergraduate:** University of Virginia 8/86-5/90  
Charlottesville, Virginia  
B.A. Religious Studies

**Medical School:** University of Virginia 8/92-5/97  
Charlottesville, Virginia  
M.D. (included 1-year plastic surgery  
research fellowship)

## POST GRADUATE TRAINING

**Internship:** University of Minnesota 6/97-6/98  
Minneapolis, Minnesota  
General Surgery (PGY-1)

**Residency:** University of Minnesota 7/98-6/00  
Minneapolis, Minnesota  
General Surgery (PGY-2,3)

**Plastic Surgery Research:** University of Minnesota 7/00-6/03  
Minneapolis, Minnesota

<b>Plastic Surgery Fellowship</b>	University of Minnesota Minneapolis, Minnesota	7/03-6/06
<b>Craniofacial Fellowship</b>	Gillette Children's Hospital Saint Paul, Minnesota	7/06-1/07
<b>Aesthetic Fellowship</b>	Marina Plastic Surgery Marina Del Rey, California	1/07-6/07

## RESEARCH EXPERIENCE

**University of Minnesota**, Department of Plastic Surgery, 2000-2003 (Warren Schubert, MD, Associate Professor of Surgery, University of Minnesota, and Chief of Plastic Surgery, Regions Hospital).

- Studied gross and histologic incorporation and re-epithelialization of titanium mesh in orbital and mid-face reconstruction.
- Retrospective study of the safety of titanium mesh in orbital and mid-face reconstruction.
- Study of etiology and pattern of mandibular fractures in Minnesota.
- Study of treatment modalities in mandibular angle fractures.

**Marshfield Clinic**, Department of Surgery, 2000-2003 (Michael Caldwell, MD, PhD, Professor of Surgery and Director of the Marshfield Research Foundation).

- Study of genetic basis for familial keloid formation using PCR and eventual proteomic expression of defective proteins.

**University of Virginia**, School of Medicine, 1996-7, 1 year Plastic Surgery Research Fellowship (Richard Edlich, MD, PhD, Raymond F. Morgan Professor of Plastic Surgery and Professor of Biomedical Engineering).

- Developed and performed *in-vivo* and *in-vitro* testing of a new, water-soluble burn cream.
- Evaluated the biomechanical performance of an external condom catheter system, and designed and filed patent application for a new anti-reflux valve as a result of this study.

**University of Virginia**, School of Engineering, 1996-7 (John Thacker, PhD, Vice Chairman and Professor of Aerospace and Mechanical Engineering).

- Evaluation of passive standing motorized wheelchairs.
- Performed a biomechanical study of ideal knot construction for continuous percutaneous and dermal absorbable and nonabsorbable sutures.

**University of Virginia**, School of Medicine, 1993 (William Petri, MD/PhD, Associate Professor of Internal Medicine and Infectious Diseases).

- Characterization of complement resistance in *Entamoeba Histolytica*.

**University of Virginia**, School of Medicine, 1990 (David Bruns, MD/PhD, Professor of Pathology and Clinical Chemistry)

- Investigated the estrogen inhibition of Calbindin-D<sub>28K</sub> in the mouse uterus.

**University of Virginia**, School of Medicine, 1985 (Adrian Gear, D.Phil., Vice Chairman and Professor of

Biochemistry.

- Studied effects of nicotine, alcohol and organic insecticides on platelet aggregation.

## **PUBLICATIONS**

Stevens WG, **Gear AJL**, et al. Outpatient reduction mammoplasty: an eleven year experience. *Aesthetic Surg J*, 2008; 28:171-9.

Van Beek, AL, Lim, PK, **Gear, AJL**, Pritzker, MR. Management of vasospastic disorders with Botulinum Toxin A. *Plast Reconstr Surg*. 119(1):217-226, 2007.

Cunningham B, **Gear AJL**. Options for tissue expansion. *Innovations in Plastic Surgery*, Volume 1, Number 2, 2005.

Cunningham B, **Gear AJL**. Analysis of breast reduction complications derived from the BRAVO study. *Plast Reconstr Surg*. 2005;115(6):1597-604.

**Gear AJL**, Apasova E, Schmitz JP, Schubert W. Treatment modalities for mandibular angle fractures. *J Oral Maxillofacial Surg*, 2005; 63(5):655-63.

**Gear AJL**, Buckley C, VanBeek A. Multifactorial refractory heterotopic ossification: a case report. *Ann Plast Surg*. 2004;52(3):319-24.

Lacey, M, **Gear AJL**. Temporal dermoids: 3 cases and a new treatment algorithm. *Ann Plast Surg*. 2003;51(1):103-9.

Schubert W, **Gear AJL**, Lee C, Hilger PA, Haus E, Migliori MR, Mann DA, Benjamin CI. The incorporation and re-epithelialization of titanium mesh in orbital and mid-face reconstruction. Submitted to *Plast Reconstr Surg*. 2002;110(4):1022-1030.

**Gear AJL**, Lokeh A, Aldridge JH, Migliori MR, Benjamin CI, Schubert W. Safety of titanium mesh in orbital reconstruction. *Ann Plast Surg*. 2002;48:1-9.

**Gear AJL**, Ahrenholz DH, Solem LD. Paraquat poisoning in a burn patient. *J Burn Care and Rehab*. 2001;22(5):347-51.

**Gear AJ**, Suber F, Neal JG, Nguyen WD, Edlich RF. New assistive technology for passive standing. *J Burn Care Rehabil*. 1999;20(2):164-9.

Drake DD, Lewis RP, Schweitzer J, Woods JA, Cox MJ, **Gear AJ**, Edlich RF. "Scientific basis of wound closure techniques." Evaluation of a new training program. *J Emerg Med*. 1998; 16(4):651-4.

**Gear AJ**, Hellewell TB, Wright HR, Mazzaresse PM, Arnold PB, Rodeheaver GT, Edlich RF. A new silver sulfadiazine water soluble gel. *Burns*. 1997;23(5):387-91.

Mazzaresse PM, Faulkner BC, **Gear AJ**, Watkins FH, Rodeheaver GT, Edlich RF. Technical considerations in knot construction. Part II. Interrupted dermal suture closure. *J Emerg Med*. 1997;15(4):505-11.

Faulkner BC, **Gear AJ**, Hellewell TB, Mazzaresse PM, Watkins FH, Edlich RF. Biomechanical performance of a braided absorbable suture. *J Long Term Eff Med Implants*. 1996;6(3-4):169-79.

Drake DB, **Gear AJ**, Mazzaresse PM, Faulkner BC, Woods JA, Edlich RF. Search for a scientific basis for continuous suture closure: a 30-yr odyssey. *J Emerg Med*. 1997;15(4):495-504.

Annunziata CC, Drake DB, Woods JA, **Gear AJ**, Rodeheaver GT, Edlich RF. Technical considerations in knot construction. Part I. Continuous percutaneous and dermal suture closure. *J Emerg Med.* 1997;15(3):351-6.

**Gear AJ**, Nguyen WD, Bealle MA, Edlich RF. Evaluation of a new external condom catheter system. *Med Prog Technol.* 1997;21(4):181-5.

**Gear AJ**, Wright H, Nguyen WD, Drake DB, Edlich RF. Self-inflicted burn injury. *Am J Emerg Med.* 1997;15(6):617-8.

**Gear AJ**, Nguyen WD, Himel HN, Edlich RF. "Flaming Dr. Pepper"—another cause of recreational burn injury. *Am J Emerg Med.* 1997;15(1):108-11.

Wright HR, Drake DB, **Gear AJ**, Wheeler JC, Edlich RF. Industrial high-voltage electrical burn of the skull, a preventable injury. *J Emerg Med.* 1997;15(3):345-9.

Faulkner BC, Drake DB, **Gear AJ**, Watkins FH, Edlich RF. Molten metal burns: further evidence of industrial foundries' failure to comply with Occupational Safety and Health Administration regulations. *J Emerg Med.* 1997;15(5):675-7.

Stiles BM, Drake DB, **Gear AJ**, Watkins FH, Edlich RF. Metacarpophalangeal joint dislocation: indications for open surgical reduction. *J Emerg Med.* 1997;15(5):669-71.

Wright HR, Drake DB, **Gear AJ**, Stiles BM, Edlich RF. Refractory Raynaud's phenomenon in scleroderma: an indication for surgery. *Am J Emerg Med.* 1997; 15(3):328-30.

Wright HR, **Gear AJ**, Morgan RF, Edlich RF. Asymptomatic jaundice after fasting: a diagnostic dilemma. *J Emerg Med.* 1997;15(6):781-4.

**Gear AJ**, Edlich RF. Mission statements: guidelines for principled medical leadership. *Acad Emerg Med.* 1996;3(8):801-3.

**Gear AJ**, Edlich RF. Commentary: obstacles to scientific discovery. *J Long Term Eff Med Implants.* 1996;6(2):135-42.

## **ACCEPTED PUBLICATIONS**

Stevens WG, Pacella S, **Gear AJL**, et al. Clinical experience with a fourth generation textured silicone gel breast implant: a review of 1012 MemoryGel™ breast implants. Accepted for publication, *Aesthetic Surg J*, 2008.

## **SUBMITTED PUBLICATIONS**

**Gear AJL**, Wood R, Shell, S. A new resorbable PDLA plate and screw system for craniofacial surgery: clinical experience 114 patients. Planned submission to *Plast Reconstr Surg*, 2008.

**Gear AJL**, VanBeek A. The phenol peel revisited: clinical experience with the formulas of Hetter. Planned submission to *Aesthetic Surg J*, 2008

Drake DB, Long WB, Scott, CC, Winters, KL, Greene JA, Britt LD, **Gear AJL**, Richard F. Edlich  
A Revolutionary Skin Forceps for Dermal Staple Skin Closure. Submitted to *J Long Term Eff Med Implants*, 2008.

## **BOOK CHAPTERS**

**Gear AJL**, Migliori M, Schubert W. The rectus abdominis in chest reconstruction. In *Reconstruction of the chest, abdomen, and pelvis*, ed. Evans, 2004, Marcel Dekker: New York.

## **PRESENTATIONS**

**Gear AJL**, Ahrenholz DH, Solem LD. "*Paraquat poisoning in a burn patient.*" Presented at the Minnesota Burn Care Meeting, Saint Paul, Minnesota, September, 1997.

Solem LD, **Gear AJL**. "*Outpatient management of burns.*" Presented at the 64<sup>th</sup> Annual Course: Advances in Trauma & Critical Care, Minneapolis, Minnesota, June 7-9, 2000.

**Gear AJL**, Hoffman JA, Schubert W. "*Mandibular fracture patterns: assault versus motor vehicle accident.*" Presented at the Minnesota Resident Trauma Paper Competition for the American College of Surgeons, Minneapolis, Minnesota, June 12, 2001.

**Gear AJL**, Lee C, Schubert W. "*The incorporation and re-epithelialization of titanium mesh in orbital and mid-face reconstruction.*" Presented at the 46<sup>th</sup> Annual Plastic Surgery Research Council, Milwaukee, Wisconsin, June 9-12, 2001 (poster session).

**Gear AJL**, Apasova E, Schubert W. "*Treatment Modalities for Mandibular Angle Fractures.*" Presented at the Minnesota Surgical Society, October 19, 2001, Duluth, Minnesota.

**Gear AJL**, Apasova E, Schmitz JP, Schubert W. "*Treatment Modalities for Mandibular Angle Fractures.*" Presented at the AO ASIF Craniomaxillofacial Advanced Symposium, Steamboat Springs, CO, February 3-5, 2002.

**Gear AJL**, Apasova E, Schmitz JP, Schubert W. "*Treatment Modalities for Mandibular Angle Fractures.*" Presented at the 47<sup>th</sup> Annual Plastic Surgery Research Council, Boston, MA, April 20, 2002 (poster session).

Apasova E, **Gear AJL**, Lacey M. "*Temporal dermoids: 3 cases and a new treatment algorithm.*" Presented at the Minnesota Surgical Society, September 27, 2002, Rochester, Minnesota.

## **PATENTS**

Filed a patent application for an anti-reflux valve for urinary catheter collection bags (1997).

## **ACADEMIC HONORS**

1<sup>st</sup> place in High School and regional science fairs in Chemistry (1985).

Regional representative at the International Science Fair (1985).

- 1<sup>st</sup> place Navy Science Award for Biochemistry
- Runner-up for Navy \$10,000 scholarship.

Winner of Resident Free Paper Competition at the AO ASIF Craniomaxillofacial Advanced Symposium, Steamboat Springs, CO (2002).

## **TEACHING EXPERIENCE**

Associate editor for the video "The Scientific Basis of Wound Closure," sponsored by the Dannemiller memorial foundation, San Antonio Texas.

Instructor in surgical suturing course for medical students.

Assisted several 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year medical students with Plastic Surgery research projects.

## **INTERNATIONAL VOLUNTEER EXPERIENCE**

Lima, Peru (2/06)

- Plastic Surgery

Chimaltenango, Guatemala (2/05)

- Plastic Surgery

Bomet, Kenya (3/03-5/03)

- General and Hand Surgery

Hefei, China (10/06-11/06)

- Plastic Surgery

## **COMMUNITY SERVICE**

### **University of Virginia School of Medicine**

- Secretary of the Christians Medical Fellowship (93-4)
- Madison House Big Brother (93-5)
- volunteer for Kluge Rehabilitation Center and the Charlottesville Free Clinic.

### **University of Virginia College of Arts/Sciences**

- Madison House Crisis Hotline volunteer
- Madison House Behavioral Medicine volunteer

## **EXTRACURRICULAR**

Playing tennis, spending time with family, hiking, travel, & photography

Secretary of the Christian Medical Fellowship (93-4) at the University of Virginia

## **PROFESSIONAL ORGANIZATIONS**

CMDS (Christian Medical and Dental Society).

ACPA (American Cleft Palate-Craniofacial Association)

ASPS ( American Society of Plastic Surgery ) Candidate-Member