

**BIOGRAPHICAL SKETCH**

NAME James Benjamin Lowe III, M.D, M.B.A.		POSITION TITLE Assistant Professor of Surgery	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Baylor University – Waco, TX	B.A.	1988	History, Pre-Medicine
University of Oklahoma – Oklahoma City, OK	M.D.	1992	Medicine
Washington University – St. Louis, MO	M.B.A.	2002	Business

**Postdoctoral Training and Experience:**

1992-1993	Surgery Intern, University of Texas Health Science Center, San Antonio, TX
1993-1997	Surgery Resident, University of Texas Health Science Center, San Antonio, TX
1997-1999	Plastic Surgery Resident, University of Texas Southwestern, Dallas, TX
1999-2000	Hand/Microsurgery Fellow, Washington University School of Medicine, St. Louis, MO
2000-2002	Instructor of Surgery, Plastic Surgery, Washington University School of Medicine, St. Louis, MO
2002-2006	Assistant Professor of Surgery, Plastic Surgery, Washington University School of Medicine, St. Louis, MO

**Honors:**

1989	Presbyterian-Harris Foundation Research Fellowship Award
1993-97	J. Bradley Aust Surgical Society Research Awards, University of Texas Health Science Center at San Antonio
1997	Outstanding Laparoendoscopic Resident Surgeon, Society of Laparoendoscopic Surgeons
1999	Best Poster Award, Plastic Surgery Education Foundation Senior Residents Meeting
1999	National Plastic Surgery Education Foundation Clinical Essay Award
1999	Resident Research Award, Department of Plastic Surgery, UT Southwestern at Dallas
2001	Best Poster Award, ASSH Annual Meeting, Baltimore, Maryland
2002	National Plastic Surgery Education Foundation Basic Science Essay Award
2003	Paul Weeks Resident Teaching Award, Division of Plastic Surgery, Washington University in St. Louis
2004	Chief, Section of Cosmetic Surgery, Division of Plastic Surgery, Washington University in St. Louis
2006	Co-Chair, International Session, ASAPS National Meeting, Orlando, FL

**Professional Activities:**

American Board of Surgery, 1999; American Board of Plastic Surgery, 2001; Certificate of Added Qualification Hand Surgery, 2004; Fellow of American College of Surgeons; Member, American Society for Surgery of the Hand, American Society of Plastic Surgeons, American Society for Aesthetic Plastic Surgery, American Society for Peripheral Nerve Surgery, Siteman Cancer Center, Aust Surgical Society, American Medical Association, Missouri Medical Society, Erlanger Graham Society, Oklahoma State Medical Society, Oklahoma State Medical Association

**Research Experience:**

1. Worked as a Presbyterian-Harris Foundation Research Fellow with David Gower, M.D., Associate Professor of Neurosurgery, University of Oklahoma College of Medicine; conducted two studies: the initiation of heat shock proteins by the central nervous system and the purification of heat shock proteins, 1989-1990.
2. Conducted research under the direction of Daniel Brackett, Assistant Professor and Director of Research, Department of Surgery, University of Oklahoma College of Medicine; studied the protective effects of neutropenia on endotoxic shock, 1991-1992.
3. Conducted research under the direction of Jay Stauffer, Assistant Professor of Surgery, Department of Surgery, University of Texas Health Science Center at San Antonio; studying tumor cell markers in human colon cancer, 1993-1997.
4. Conducted research under the direction of Rod Rohrich; Professor and Chairman, Department of Plastic and Reconstructive Surgery, University of Texas Southwestern Medical Center at Dallas; studying the effects of Hyaluronate/ carboxymethylcellulose on flexor tendon adhesions and studying the effects of laser to the undersurface of surgical flaps, 1997-1999.
5. Conducted clinical research under the direction of Rod Rohrich, Professor and Chairman, Department of Plastic Surgery, University of Texas Southwestern Medical Center at Dallas, and Jaime Garza, Division Chairman, Department of Surgery, University of Texas Health Sciences Center at San Antonio, studying the role of components separation for abdominal reconstruction, 1995-1999.
6. Conducted research under the direction of Susan Mackinnon, Professor and Division Chief, Department of Plastic Surgery, Washington University School of Medicine, studying nerve conduits and nerve allografts in animal and human studies, focusing on cavernous nerve reconstruction in a large animal model, 2000-2005
7. Conducted independent clinical research; Washington University School of Medicine, studying clinical research on breast reconstruction, body contouring, and facial aging and ethnicity, 2000-2006.

**Selected Publications:**

1. Lowe JB, Page CP, Schwesinger, WH, Gaskill, HV, Stauffer JS: Percutaneous Endoscopic Gastrostomy Tube Placement in a Surgical Training Program. *Amer. J. Surg.* 174(6):624-7, 1997.
2. Rohrich RJ, Lowe JB, and Schwartz MR: The role of Rhinoplasty in the Management of Nasal Dermoid Cysts. *Plast. Reconstr. Surg.* 104(5):1459-66, 1999.
3. Lowe JB, Rohrich RJ, Hackney FL, Hobar PC: Essay Award: An Algorithm for Abdominal Wall Reconstruction. *Plast. Surg. Forum XXII* 65:124, 1999.
4. Rohrich RJ, Lowe JB, Hackney F, Bowman JL, and Hobar C: An Algorithm for Abdominal Wall Reconstruction. *Plast. Reconstr. Surg.* 105(1): 202-216, 2000.
5. Lowe JB, Garza JR, Bowman JL, Rohrich RJ, and Strodel WE: Endoscopic-Assisted "Component Separation" for Abdominal Wall Defects. *Plast. Reconstr. Surg.* 105(2): 720-9, 2000.
6. Myckatyn, TM, Ellis RA, Grand AG, Sen SK, Lowe JB, Hunter DA, Mackinnon SE: The Effects of Rapamycin in Murine Peripheral Nerve Isografts and Allografts. *Plast. Reconstr. Surg* 109(7):2405-17, 2002.
7. Lowe JB, Tung TE, Mackinnon SE: New Surgical Options for the Treatment of Radial Nerve Paralysis. *Plast. Reconstr. Surg.* 110(3):836-43, 2002.
8. Lowe JB, Sen SK, Mackinnon SE: Current Approach to Radial Nerve Paralysis. *Plast. Reconstr. Surg.* 110(4):1099-113, 2002.
9. Doezie AM, Lowe JB, Hunter DA, Mackinnon SE: The effects of Tobacco Smoke on Recovery Following Nerve Crush Injury in Rats. *Ann. Plast. Surg* 49(6):628-634, 2002.
10. Sobol JB, Lowe JB, Yang RK, Sen SK, Hunter DA, Mackinnon SE: Effects of Delaying FK506 Administration on Neuroregeneration in a Rodent Model. *J. Reconstr. Microsurg.* 19(2),113-118, 2003.
11. Lowe JB, Lowe JB, Garza JR: Risk Associated with "Components Separation" for Closure of Complex Abdominal Wall Defects. *Plast. Reconstr. Surg* 111(3):1276-1285, 2003.
12. Yang RK, Lowe JB, Sobol JB, Sen SK, Hunter DA, Mackinnon SE: Dose-dependent Effects of FK506 on Neuroregeneration in a Rat Model. *Plast. Reconstr. Surg.* 112(7):1832-1840, 2003.
13. Lee AC, Lowe JB, Hunter DA, Mackinnon SE, Sakiyama-Elbert SE: Fibrin-based Neurotrophic Factor Delivery Systems to Enhance Peripheral Nerve Regeneration. *Exp. Neurol.* 184(1): 295-303, 2003.
14. Lowe JB, Mackinnon SE: Management of Secondary Cubital Tunnel Syndrome. *Plast. Reconstr. Surg.* 113(1):E1, 2004.
15. Brenner MJ, Fox IK, Kawamura DH, Yu VM, Lowe JB, Hunter DA, Mackinnon SE: Delayed Nerve Repair is Associated with Diminished Neuroenhancement by FK506. *Laryngoscope*, 114(3):570-576, 2004.
16. Lowe JB, Maggi SP, Mackinnon SE: The Anatomic Position of the Medial Antebrachial Cutaneous Nerve in a Human Model. *Plast. Reconstr. Surg.* 114(3):692-696, 2004.
17. Brenner MK, Jensen JN, Lowe JB, Myckatyn TM, Hunter DA, Mackinnon SE: Anti CD40 Ligand Antibody Permits Regeneration through Peripheral Nerve Allografts in a Non-Human Primate Model. *Plast. Reconstr. Surg* 114(7):1802-1815, 2004.
18. Sen SK, Lowe JB, Brenner MJ, Hunter DA, Mackinnon SE: Assessment of the Immune Response to Dose of Nerve Allografts. *Plast. Reconstr. Surg.* 115(3): 823-830, 2005.
19. Brenner MK, Lowe JB, Fox IK, Hunter DA, Mohankumar K, Mackinnon SE: Effects of Schwann Cells and Donor Antigen on Long Nerve Allograft Regeneration. *Microsurgery* 25 (1):61-70, 2005.
20. Lowe JB, Cohen M, Hunter DA, Mackinnon SE: Analysis of the Nerve Branches to the Orbicularis Oculi of the Lower Eyelid in a Fresh Cadaver. *Plast. Reconstr. Surg.* 116(6): 1743-1749, 2005.
21. Lowe JB: Discussion - Regenerating Axons Emerge Far Proximal to the Coaptation Site in End-to-Side Nerve Coaptation without a Perineurial Window Using a T-Shaped Chamber. *Plast. Reconstr. Surg.* 117(4):1204-1206, 2006.
22. Perlan CA, Lowe JB: The S.O.F.T. Cheek Method: An Approach to Lower Eyelid and Midface Rejuvenation. *Missouri Medicine* 103(3): 161-167, 2006.
23. Lowe JB, Talcott M, Hunter DA, Mackinnon SE: The Effects of Cavernous Nerve Grafting Following Surgically Induced Impotence in a Large Animal Model. *Plast. Reconstr. Surg.* 118(1): 69-80, 2006.
24. Sakiyama-Elbert SE, McKee A, Ahmad S, Soman N, Lowe JB, Brenner MJ, Hunter DA, Tung TE, Mackinnon SE: Effect of Sciatic Nerve Injury on Gene Expression in Ventral Horn, Dorsal Root Ganglia and Sciatic Nerve. (Submitted *Exp. Neurol.*)
25. Sieczka EM, Lowe JB: Extended Abdominoplasty in a Residency Training Program. (Submitted to *Journal of Aesthetic Surgery*)
26. Lowe JB, McKane BW, Verdine BW: Differences in Facial Proportions and Aging between African, Asian and Caucasian Americans. (In preparation)
27. Lowe JB, Rowe A: Differences in Nasal Proportions and Aging between African, Asian, Latino, and Caucasians. (In preparation)
28. Lowe JB, Cohen M: Indications for Breast Reconstruction with a Latissimus Dorsi with Breast Implant. (In preparation)

**Book Chapters:**

1. Lowe JB, Novak CB, Mackinnon SE: Current Technique for Ulnar Nerve Transposition. *Neurosurgery Clinics of North America*. 12(2):267-84, 2001
2. Lowe JB, Mackinnon SE: Ulnar Nerve Transposition at the Elbow (Yoman's Textbook of Neurosurgery, Fifth Edition, 2003)
3. Maggi SP, Lowe JB, Mackinnon SE: Pathophysiology of Nerve Injury. (*Clinics in Plastic Surgery*. 30, 1-18, 2003)
4. Lowe JB, Mackinnon SE: Failed Ulnar Nerve Release at the Elbow. (Thieme – Master Cases in Neurosurgery: Peripheral Nerve Surgery, 2004)
5. Lowe JB: Current Algorithm to Abdominal Reconstruction. (*Clinics in Plastic Surgery*, 33 (2), 225-240, 2006)
6. Lowe JB: Ulnar Neuropathy, Cavernous Nerve Reconstruction. (In preparation –Thieme, Surgery of the Peripheral Nerve, 2007)

**Selected Presentations:**

1. Medical Education Symposium, Washington University School of Medicine, St. Louis, MO, September, 2005: Differences in Ethnic Nasal Proportions. (Oral and poster presentation)
2. Resident Research Day, Department of Plastic Surgery, Washington University School of Medicine, St. Louis, MO, June, 2005: Ethic Analysis and Aging in African, Asian, and Causcasian Americans; Follow-up to Extended Abdominoplasty in a Resident Training Program. (Oral and slide presentation)
3. Abdominal Wall Reconstruction Panel, American Society of Plastic Surgeons, Philadelphia, PA, October, 2004: Algorithm for Complex Abdominal Wall Reconstruction. (Oral and slide presentation)
4. Visiting Professor, Department of Plastic Surgery, University of Texas Southwestern, Dallas, TX, June, 2004: Academic Plastic Surgery, Unmasking the “Problem” Cosmetic Surgery Patient, Current Trends in Upper Extremity Nerve Transfers. (Oral and slide presentation)
5. Research Day, Department of Plastic Surgery, Washington University School of Medicine, St. Louis, MO, May, 2004: Ethic Analysis and Aging; Extended Abdominoplasty in a Training Program. (Oral and slide presentation)
6. Cosmetic Surgery Symposium, Washington University School of Medicine, St. Louis, MO, May, 2004: The Problem Cosmetic Surgery Patient, Advances in Facial Cosmetic Surgery. (Oral and slide presentation)
7. OB/GYN Ground Rounds, Washington University School of Medicine, St. Louis, MO, April, 2004: Current Trends and New Horizons in Cosmetic Surgery for Women. (Oral and slide presentation)
8. American Society for Peripheral Nerve, Annual Meeting, Rancho Mirage, January 2004: Anatomy of the Obicularis Muscle, Cavernous Nerve Grafting in Large Animal Model, Allotransplantation of Nerve in Primates. (Oral and slide presentations)
9. Research Council of Plastic Surgery Education Foundation, Annual Scientific Meeting, Boston, Massachusetts, April, 2002: Multiple presentations related to nerve allograft and injury models.(Oral and slide presentations)
10. Research Council of Plastic Surgery Education Foundation, Annual Scientific Meeting, Milwaukee, Wisconsin, May, 2001: Effects of Delaying FK506 Administration on Neuroregeneration in a Rodent Model. (Oral and slide presentation)
11. American Society for Surgery of the Hand, Annual Scientific Meeting, Baltimore, Maryland, 2001: Assessment of the Immune Response to Dose of Nerve Allografts.
12. Resident Research Day, Department of Plastic Surgery, Washington University School of Medicine, St. Louis, MO, June, 2000: Pre-degeneration of Interposed Nerve Segments do not Enhance Regeneration across a Synthetic Conduit.(Oral and slide presentation)
13. Research Council of Plastic Surgery Education Foundation, Annual Scientific Meeting, Seattle, WA, May, 2000: The effects of Predegeneration of Interposed Nerve Segments on Nerve Regeneration across a Silicone Conduit. (Poster presentation)
14. American Society of Plastic and Reconstructive Surgeons, Annual Scientific Meeting, New Orleans, LA, October, 1999: An Algorithm for Abdominal Wall Reconstruction. (Oral and slide presentation)
15. 38th Annual Plastic Surgery Senior Residents Conference, Galveston, Texas, April, 1999: Damage to Hair Follicles by Laser to Undersurface of Surgical Flap, Endoscopic Assisted Component Separation. (Oral, slide, and poster presentation)
16. Texas Society of Plastic Surgeons, Annual Scientific Meeting, Galveston, Texas, November, 1998: Damage to Hair Follicles by Laser to Undersurface of Surgical Flap (Oral and slide presentation)
17. Texas Society of Plastic Surgeons, Annual Scientific Meeting, San Antonio, Texas, November, 1997: A New Technique: Endoscopic Assisted Separation of Abdominal Components (Oral and slide presentation).
18. J. Bradley Aust Surgical Society, 23rd meeting, San Antonio, Texas, June 1997: A New Technique: Endoscopic Assisted Separation of Abdominal Components (Oral and slide presentation)
19. American College of Surgeons, South Texas Chapter, San Antonio, Texas, February, 1997: Percutaneous Endoscopic Gastrostomy Tube Placement in a Surgical Training Program (Oral and slide presentation)
20. J. Bradley Aust Surgical Society, 22nd meeting, San Antonio, Texas, June 1996: Percutaneous Endoscopic Gastrostomy Tube Placement in a Surgical Training Program (Oral and slide presentation).
21. J. Bradley Aust Surgical Society, 21st meeting, San Antonio, Texas, June 1995: Development and Characterization of a Normal Esophageal Epithelial Cell Line derived from Normal Mucosa of a Patient with Adenocarcinoma of the Esophagus (Oral and slide presentation)
22. American College of Surgeons, North and South Texas Chapters, Dallas, Texas, February, 1995: Comparison of immunocytochemical staining of cultured colon mucosal cells vs. immunohistochemical staining of source tissue. (Oral, manuscript, and slide presentation)

23. J. Bradley Aust Surgical Society, 20th meeting, San Antonio, Texas, June 1994: Comparison of immunocytochemical staining of cultured colon mucosal cells vs. immunohistochemical staining of the parental tissue. (Oral and slide presentation)

### **Ongoing Basic Science Research Support**

1. Independent Support Lowe (PI) 7/1/02- Present  
Ethnic Facial Differences Associated with Aging and Breast Reconstruction with Latissimus Dorsi Flap  
Clinical studies to enhance clinical evaluation and practice of plastic surgery  
Role: Principle investigator

### **Completed Research Support**

1. Washington University School of Medicine Departmental Support Lowe (PI) 12/1/00 – 2005  
Nerve Graft Repair of Ablated Cavernous Nerves in the Dog and the Effects of FK506 on the Model  
The goal of this study is to determine if cavernous nerve grafting improves potency in a large animal model  
Role: Principle investigator

2. Barnes-Jewish Hospital Foundation Grant Thomas Tung (PI) 2/1/03-1/31/04  
Molecular Basis for Neuroregenerative Effects of FK506  
This study examines the effects of FK506 at a molecular level utilizing gene chip technology  
Role: Co-investigator

3. McDonnell Foundation for Molecular and Cellular Neurobiology Sakiyama-Elbert (PI) 7/1/02-12/30/03  
Tissue-Engineered Matrices for Nerve Regeneration  
The goal of this project is to develop scaffolds for peripheral nerve regeneration that can release growth factor in response to generating tissue.  
Role: Co-investigator

4. NIH 2R01-NS33406 Mackinnon (PI) 4/28/00-7/1/03  
Nerve Allograft Transplantation for Traumatic Nerve Injury  
This study was to determine the effects of nerve allograft transplantation in large and small animal models.  
Role: Project Assistant

5. Vertex Corporation Grant Lowe (PI) 1/21/02 -7/1/02  
Effects of Nerve Regeneration of FK506 and its Analogue at Different Doses  
This study is to examine the effects of a new analog to FK506 on neuroregeneration in a rat model  
Role: Principle investigator

6. Washington University School of Medicine Departmental Support Mackinnon (PI) 1/19/01 – 6/1/02  
Analysis of Messenger RNA Activation in Peripheral Nerves following Transection or Crush Injury  
The goal of this study is to determine the up-regulation of certain growth factors using micro-array technology.  
Role: Co-investigator

7. Washington University School of Medicine Departmental Support Mackinnon (PI) 4/1/00-2/1/02  
The Effects of Placement of Pre-degenerated Proximal and Distal Nerve Segments within a Silicon Conduit  
The goal of this study is to determine the possible neurotrophic effects of pre-degeneration of a nerve graft placed within a silicone conduit.  
Role: Co-investigator

8. Washington University School of Medicine Departmental Support Lowe (PI) 5/11/01 – 11/2/01  
The Effects of the Depth of the Nerve Window in End-to-side Nerve Repairs  
The goal of this study is to determine of minimal amount of depth required in an end-to-side neurotomy.  
Role: Principle investigator

9. Washington University School of Medicine Departmental Support Lowe (PI) 8/1/00-10/1/01  
The Tensile Strength of the Abdominal Wall following the absorption of Vicryl Mesh  
This study was used to determine the effects of Vicryl on the long-term support of the abdominal wall in rats.  
Role: Principle investigator

10. Washington University School of Medicine Departmental Support Mackinnon (PI) 6/1/00 – 7/15/01  
PHS 398 (Rev. 4/98)

The Dose Requirements of FK506 for Nerve Regeneration in a Rat Model

The goal of this study was to determine the optimal subimmunosuppressive dose of FK506 that would increase neuroregeneration.

Role: Project director

11. Washington University School of Medicine Departmental Support Mackinnon (PI) 7/1/00-4/1/01

Assessment of the Immune Response to Volume of Nerve Allografts Transplanted in Mice

This study was to determine the effects of antigenic load on allograft rejection in a murine model

Role: Co-investigator