

SECTION OF VASCULAR SURGERY

FACULTY

Professor and Chief of Section

Bauer E. Sumpio, M.D., Ph.D. (Cornell University Medical College)

Professor

Richard J. Gusberg, M.D. (Columbia University)

Associate Professor

Vivian Gahtan, M.D. (George Washington University)

Assistant Professor

Alan Dardik, M.D., Ph.D. (University of Pennsylvania)

Lynne Kelley, M.D. (Dartmouth)

Assistant Clinical Professors

Ralph W. DeNatale, M.D. (St. Raphael's)

Thomas F. Sweeney, M.D. (Yale)

Vascular Surgery Fellow

2001-03 Siamak Barkhordorian, M.D. (Temple University)

2002-04 Kwame Amankwah, M.D. (SUNY, Downstate)

2003-05 Bolaji Nafiu, M.D. (Southern California)

Lecturer, Vascular Laboratory

Helen Pedersen, R.N., R.V.T.

Overview

The clinical services at both Yale New Haven Hospital and the West Haven VA Hospital continue to be enhanced by productive interdisciplinary research programs and a vigorous commitment to education and training.

Accomplishments

Clinical Programs

Busy clinical services, with a broad spectrum of general and tertiary vascular surgery cases, exist at both Yale-New Haven Hospital and the VA Connecticut Medical Center. Dr. Bauer Sumpio is Chief of the Vascular Surgery Service at Yale New Haven Hospital. The clinical programs, a reflection of a large and broad-spectrum referral practice, are committed to the comprehensive management of patients with vascular disease (emphasizing prevention, risk factor evaluation and reduction, patient education, comprehensive diagnostic evaluation and advanced care).

Bauer Sumpio, M.D., Ph.D. was awarded a New Clinical Development Fund grant by the Medical Center for the establishment of the Yale Endovascular Center. The award was based on the recognition that the care of the patient with peripheral vascular disease is rendered, of necessity, through a multidisciplinary approach. Specialists in vascular surgery, nephrology, diagnostic ultrasound, interventional radiology, cardiology and outcomes research are coordinated to diagnose, manage and follow the outcomes of patients with abdominal aortic aneurysms, renovascular pathology and visceral ischemia. The diagnosis of vascular pathology, recognition of indications for intervention, stratification and optimization of co-morbid risk factors and management of post-procedure hospitalization, complications and follow-up, all mandate for a multi-disciplinary program. Peripheral vascular interventional technologies have been introduced at an

unprecedented rate in the last decade. The complex nature of the new devices and pharmaceutical agents mandate the need for clinical trials to test innovations in industry technology. Endovascular program does not merely entail technical skills but the comprehensive care of the vascular patient and brings together the cognitive and procedure oriented disciplines centered on vascular disorders of the aorta and its branches.

Dr. Sumpio also maintains a large clinical interest in diabetic foot pathology and limb preservation strategies. He is participatory in several clinical trials involving wound healing products, antibiotics and peri-operative cardiac morbidity reduction. He is the national principal investigator for the HEAL-IT trial investigating the role of cilastazol in healing diabetic foot wounds.

E. Lynne Kelley, M.D. was appointed as Assistant Professor of Vascular Surgery effective February 2002. Dr. Kelley graduated from Boston University and Dartmouth Medical School and did her general surgery residency at Dartmouth Hitchcock Medical Center. She completed a research fellowship in vascular surgery at Brigham and Women's Hospital and a clinical fellowship in vascular surgery at Massachusetts General Hospital. Dr. Kelley was awarded a Marco Polo Fellowship in advanced endovascular surgery at Hospital Henri Mondor, Creteil, France. Dr. Kelley is an expert in both the latest less invasive endovascular techniques as well as traditional approaches to vascular disease. Her specialty is stenting of the carotid and abdominal aortic arteries. She performs minimally invasive as well as traditional surgery of all blood vessels.

Richard J. Gusberg, M.D. has continued his clinical interests in carotid, aortic, and aortic branch disease. His research has focused on the natural history and treatment of aortic disease (including infra-renal and thoraco-abdominal, treated with both open and endovascular techniques---in collaboration with Cardiothoracic Surgery and Interventional Radiology) and outcome prediction following renal revascularization.

Vivian Gahtan, M.D. is Chief of the Vascular Surgery Service at the West Haven VA Hospital. This busy service is the major VA vascular referral center between New York and Boston. Dr. Gahtan is also the Director of the Non Invasive Vascular laboratories at Yale New Haven Hospital.

Alan Dardik, M.D., Ph.D. is Director of the Non-invasive Vascular Laboratory at the VA Connecticut Medical Center. He is also Associate Program Director at St. Mary's Hospital in Waterbury.

Joint appointments in Radiology were bestowed upon Bauer Sumpio, MD, Ph.D., Richard Gusberg, MD and E. Lynne Kelley, MD in recognition of the formation of a Center for Vascular Disease linking Interventional Radiology and Vascular Surgery.

ADMINISTRATIVE/EDUCATIONAL ACCOMPLISHMENTS

Alan Dardik, M.D., Ph.D.

Faculty Teaching Award, Residents of St Mary's Hospital, Waterbury, CT, 2002
Certificate of Added Qualifications, Vascular Surgery, American Board of Surgery, 2003
Visiting professor, Englewood Hospital, Englewood, NJ, July 2003
Chairman, Program Committee, Peripheral Vascular Surgery Society, 2003-
Panel moderation: Peripheral Vascular Surgery Society, 28th annual meeting spring meeting, Session II, Chicago, IL, June 2003

Vivian Gahtan, M.D.

Executive Council, American Institute for Ultrasound Medicine
American Surgical Association Foundation's Fellowship Award
Moderator, Vascular Surgery I Session at The Surgical Forum at the 86th Annual Clinical Congress, American College of Surgeons, Chicago, IL.
Moderator, Peripheral Vascular II Session at the 34th Annual Meeting of the Association for Academic Surgery,

Tampa, FL
Program Committee, Peripheral Vascular Surgery Society
Young Surgeons Committee, AAVS, 2001-Present
Vice President, Association of Women Surgeons
Coordinator, Vascular Surgery Motion Picture Session, 2002 Clinical Congress, American College of Surgeons
Committee on Medical Motion Pictures, American College of Surgeons, 2002-2004
Ad Hoc Member of the Association for Academic Surgery Executive Council representing AWS, 2002-Present
ACS Ultrasound Instructor Candidate, 2002-Present
ACS 30th Spring Meeting, Postgraduate Course – Vascular Surgery, San Diego, CA: “Management of a failed access,” April 2002.

Richard Gusberg, M.D.

American College of Surgeons Resident Education Committee, Mentoring Subcommittee,
Reorganization Surgical Clerkship: Yale University School Of Medicine
Vascular Surgery Representative, American College of Cardiology /American Heart Association Task Force on
Practice Guidelines. (Perioperative Cardiovascular Evaluation for Non Cardiac Surgery)
Association of Surgical Education Foundation Board,
Member, Admissions Committee, Yale University School of Medicine
Founding Member, Society of Distinguished Teachers, Yale University School of Medicine
Visiting Professor, University of Iceland
Visiting Professor, Dartmouth Medical School
Assistant Dean for Yale CME

Lynne Kelley, M.D.

Aneurix Certification, April 2003

Bauer Sumpio, M.D., Ph.D.

Honorary Fellow, Philippine College of Surgeons, 2002
America’s Best Doctor, 2002
Chairman, Research Council, Society for Vascular Surgery (2003-2005)
Best Doctor, America-2001, 2002- Vascular Surgery
Associate Examiner, American Board of Surgery 2002
Associate Director, Graduate Medical Education Yale-New Haven Hospital
Physicians Assistant Steering Committee, Surgery Liaison
Surgical Education Committee
Executive Committee, International Society for Applied Cardiovascular biology
Secretary, International College of Angiology
Chair, Education Committee- Association of Program Directors in General
Vascular Surgery (2002-3)
Chair, Membership Committee- New England Society for Vascular Surgery (1998-2003)
Editorial Board, Journal of Vascular Surgery
Editorial Board, Journal of American College of Surgeons
Editorial Board, Angiology- Senior Editor
Editorial Board, Cell Transplantation
Editorial Board, Journal Surgical Research
Editorial Board, Contemporary Surgery
Chair, Post-graduate course in Vascular Surgery, American College of Surgeons 2003
Guest Speaker, International Society for Applied Cardiovascular Biology, “Cyclic Strain Mechanotransduction”, St
Gallen, Switzerland, March 2002.
Guest Speaker, European Cardiovascular Surgery Society, “Surgery of the cell-the new frontier for surgeons”, Zurs,

Austria, March 2002.
Visiting Professor, University of Florida, "Gene therapy for cardiovascular disease", Gainesville, FL March 2002.
Invited Faculty, International Union of Angiology, "Hemodynamic Regulation of the Blood Vessel Wall", New York, NY, April 2002
Guest Speaker, NY Chapter of American College of Surgeons, "Management of deep venous thrombosis", Cooperstown, NY, April 2002.
Visiting Professor, Albany Medical Center, "Intimal Hyperplasia", Albany, NY, April 2002.
Professor, Englewood Hospital, "Evaluation and Management of DVT", Englewood, NJ, May 2002.
Invited faculty, Japanese Society for Vascular Surgery, "Surgical management of acute limb ischemia", Okinawa, Japan, May 2002
Visiting Professor, University of Arkansas Medical Center, "Strategies to reduce intimal hyperplasia", Little Rock, AK, May 2002.
Grand Rounds, Stamford Medical Center, "Out-patient treatment of DVT, Stamford, CT, July 2002.
Visiting Lecture, Beth Israel Deaconess Medical Center, "Can surgeons control the fate of a vascular graft", Boston, MA, October 2002.
Invited faculty, Vascular Endovascular Issues Techniques Horizons Symposium, "Current concepts in foot ulcers", New York, NY November 2002.
Guest Speaker, Philippine College of Surgeons, "Endovascular management of vascular trauma", Manila, Philippines, December 2002.
Invited faculty, Northwestern Vascular Symposium, "Contemporary management foot ulcers", Chicago, IL December 2002.
Invited faculty, Hong Kong Surgical Forum, "Is there a cure for Atherosclerosis", Hong Kong, PRC January 2003.
Grand Rounds, North Shore University Hospital, "Contemporary evaluation and management of DVT", Manhasset, NY April 2003.
Guest Speaker, 1st Annual Society for Caribbean Surgeons. "Wine as a Medicine", Port-of-Spain, Trinidad, June 2003.
Invited Faculty, UEMS, European Society for Vascular Surgery, "Importance of basic science in the training of vascular surgeons", Dublin, Ireland, September 2003.

SECTIONAL ACCOMPLISHMENTS:

GRANTS:

NIH R01 HL 47345-08 (Dr. Sumpio, P.I., Funding period: 12/01/03 - 11/30/08, \$1,250,000) "Mechanisms by which EC sense changes in hemodynamics." This grant has been funded since 1989

VA Merit Review (Dr. Sumpio, P.I., Funding Period 10/03-9/08, \$750,000/year) "Mechanical Stretch of Vascular Cells" This grant has been continuously funded since 1999.

American Heart Association Heritage Affiliate Grant-in-Aid. (Dr. Gahtan, P.I. 7/99-02, \$50,000/year) "The Role of Platelet Derived Growth Factor in Thrombospondin-1-Induced Smooth Muscle Cell Chemotaxis,"

Yale University Ohse Fellowship (Dr. Dardik), July 2001-June 2002, award: \$10,000 (1 year)

American College of Surgeons, Franklin H. Martin, MD FACS Faculty Research Fellowship (Dr. Dardik), July 2002-June 2004, Regulation of Endothelial Cell Proliferation and Migration by Hemodynamic Forces award: \$80,000 (2 years)

Lifeline Foundation, E.J.Wylie Traveling Fellowship (Dr. Dardik), 2002-2003, award: \$12,000 (1 year)

American Geriatrics Society, Dennis W. Jahnigen Career Development Scholars Award (Dr. Dardik), July 2002-June 2004, Effects of Aging on Endothelial Cell Responses to Hemodynamic Forces award: \$200,000 (2 years)

Pacific Vascular Research Foundation, Wylie Scholar in Academic Vascular Surgery Award (Dr. Dardik), July 2002-June 2005, Regulation of Smooth Muscle Cells by Shear Stress award: \$150,000 (3 years)

CLINICAL TRIALS:

Clinical evaluation of Regranex (beclapernin) Gel 0.01% for the treatment of full-thickness diabetic neuropathic foot ulcers. Ortho-McNeil Pharmaceuticals. (PI: Bauer Sumpio, M.D., Ph.D.)

Twelve-week randomized, double-blind multicenter study of the safety and efficacy of three oral doses of OPC-28326 versus placebo treatment in patients with intermittent claudication secondary to peripheral arterial disease. Otsuka America Pharmaceuticals (PI: Bauer Sumpio, MD, PhD).

Clinical evaluation of Regranex (beclapernin) gel 0.01% for preparing the wound bed and shortening the time interval to split-thickness skin grafting and complete wound coverage. Ortho-McNeil Pharmaceuticals. (PI: Bauer Sumpio, M.D., Ph.D.)

A multicenter, randomized, open-label study comparing the efficacy and safety of once daily ORG 31540/SR90107A versus adjusted-dose intravenous unfractionated heparin in the initial treatment of acute symptomatic pulmonary embolism. "Matisse Study" Organon (PI: Bauer Sumpio, M.D., Ph.D.)

Safety, pharmacokinetics and pharmacodynamics of novel acting thrombolytic for initial treatment of chronic peripheral arterial occlusion. Amgen (PI: Bauer Sumpio, M.D., Ph.D.)

A double-blind, efficacy and safety study of the direct thrombin inhibitor, H376/95, versus standard therapy [enoxaparin and warfarin (coumadin)] in patients with acute, symptomatic deep venous thrombosis with or without pulmonary embolism. AstraZeneca (PI: Bauer Sumpio, M.D., Ph.D.)

Linezolid vs Aminopenicillins for Diabetic Foot Infections; Phase IV Clinical Trial for Linezolid, Zyvox, 76-inf-0026-113. Pharmacia Corporation (PI: Dr. Bauer Sumpio)

A Randomized, Double Blinded, Parallel-Group, Placebo-Controlled, Multicenter study to Evaluate the Efficacy and Safety of Repifermin KGF-2 in Subjects with Venous Ulcers Protocol KGF-2-WHO4 Human Genome Sciences (PI: Bauer Sumpio, M.D., Ph.D.)

Comparison of Skin Perfusion Pressure, Transcutaneous Oxygen Pressure, and ABI, Determine whether SPP measurements may be better than tcPO₂ and ABI for evaluation of lower limb ischemia in patients with chronic wounds Vasamedics Corporation, (PI: Bauer Sumpio, M.D., Ph.D.)

Multi-center, Open Label, Pilot Evaluation of the Tolerability, Efficacy and Safety of Oral Heparin/SNAC Solution Protocol No. 325A-C-004, Emisphere Technologies, Inc. PI: Bauer Sumpio)

RESEARCH PROGRAMS:

Productive and prominent programs in both basic and clinical research are fundamental to the development of clinical excellence and our academic mission.

Our Vascular Biology Laboratory, under the direction of Dr. Bauer Sumpio, has both national and international visibility and is well-funded through NIH, American Heart Association, and Veterans Administration Merit Review Board. This vigorous research program, focusing on delineating molecular events in the arterial wall in response to mechanical forces, has involvement by students, residents, visiting fellows, as well as faculty. Dr. Vivian Gahtan has established a research program in examining the role of Thrombospondin-1 (TSP-1), an extracellular matrix glycoprotein virtually absent in the normal vessel, in intimal hyperplasia. Her laboratory is investigating the effect of TSP-1 on vascular SMC proliferation and chemotaxis and how signaling pathways influence TSP-1 induced SMC proliferation and chemotaxis. Dr. Gahtan is funded by grants from the American Heart Association, the American Surgical Association and the Veterans Administration. Dr. Alan Dardik has a basic research program at the VA centered on the effects of shear stress on endothelial and smooth muscle cell biology and the etiology of intimal hyperplasia. He is funded by the American Geriatrics Association and the Pacific Vascular Foundation.

Dr. Richard J. Gusberg has continued his clinical interests in carotid, aortic and aortic branch disease. His research has focused on the natural history and treatment of aortic disease (including infra-renal and thoraco-abdominal, treated with both open and endovascular techniques----in collaboration with CT surgery and Interventional Radiology) and outcome prediction following renal revascularization.

Our clinical research programs are enhanced by the inter-disciplinary collaboration that has developed in our Center for Vascular Disease with the Interventional Radiologists and the development of a Limb Preservation Center at Yale with the podiatrists, endocrinologists and nephrologists.

EDUCATIONAL PROGRAMS:

The educational programs within the Vascular Surgery section are broad in scope: patient education in the Vascular Center; continuing education for surgeons, nurses and PAs; student and resident involvement in our research laboratories; a vascular surgery curriculum for both residents and medical students (at Yale-NHH and VA); and formal inpatient and out-patient teaching sessions on the Vascular rotations. We are also responsible for the vascular educational programs at two of our affiliated hospitals (Bridgeport and St. Mary's in Waterbury). Dr. Alan Dardik is the Associate Program Director for the St. Mary's Hospital Surgical Residency program.

A Vascular Surgery Fellowship was commenced on July 1, 1996. Dr. Bauer Sumpio is the Program Director. The educational philosophy and goals of this one-year post-graduate program in General Vascular Surgery encompass the training of vascular surgeons/scientists. First and foremost, we will strive to produce individuals with superior skills in the medical management of patients with vascular disease. Secondly, we plan to train our vascular fellows to be fine educators and administrators in the vascular surgery/medicine arena. Since the university has a longstanding academic role investigating the pathophysiology of vascular disease. Our third goal therefore, is to give our fellows a broad experience in clinical (and in some cases laboratory) research concerning pertinent issues in vascular surgery, medicine and biology.

Dr. Bauer Sumpio is a member of the Association for Program Directors in Vascular Surgery and was the Chair of the Education Committee. He was invited to give a talk on the "Creation of a Basic Science Curriculum on the Web" at the 2003 meeting held in Bethesda, Maryland. He was also invited to discuss "The importance of basic science curriculum in vascular surgery training" at the European Society for Vascular Surgery Symposium on "Reforming the training paradigm in Europe".

Dr. Richard Gusberg is a member of the American College of Surgeons Graduate Medical Education Committee and served as faculty for the 2000 ACS Post-graduate course on Mentoring, helped to develop a student mentoring program (focused on attracting minority high school students to careers in surgery). Dr. Gusberg was invited to give an address on "The Mentoring of Vascular Trainees" to the 2001 meeting of the Association of Program Directors in Vascular Surgery. He is the recent past President and Board member of the Association for Surgical Education Foundation, and as Assistant Dean for Yale CME oversaw an expansion of accredited regional and international programs.

Yale medical students are involved on the Vascular Surgery service at several levels (clinical rotations in the third and fourth years, clinical and basic research, advisees of the Vascular Surgery faculty). Dr. Gusberg served as faculty thesis advisor for a senior Yale medical student (Captopril Renal Scanning as a Predictor of Outcome Following Renal Revascularization).

PUBLICATIONS

Outcomes of Secondary Interventions Following Endovascular Repair of AAA JP Becquemin, **L Kelley**, T Zubilewicz, P Desgranges, M Lapeyre, H Kobeiter, *The Journal of Vascular Surgery*.

Merrell GA, **Gusberg RJ** Infrainguinal bypass conduit: autogenous or synthetic--a national perspective. *Vascular and Endovascular Surgery* 36:247-254, 2002

Dardik A, Perler BA, Roseborough GS, Williams GM. Subdural hematoma after thoracoabdominal aortic aneurysm repair: An underreported complication of spinal fluid drainage? *Journal of Vascular Surgery*, 36:47-50 (2002).

Dardik A, Eisele DW, Williams GM, Perler BA. A contemporary assessment of carotid body tumor surgery: Are we making any progress? *Vascular and Endovascular Surgery*, 36(4):277-283 2002.

Dardik A, Krosnick T, Perler BA, Roseborough GS, Williams GM. Durability of thoracoabdominal aortic aneurysm repair in patients with connective tissue disorders. *Journal of Vascular Surgery*, 36(4):696-703 2002.

Dardik A, Perler BA, Roseborough GS, Williams GM. Subdural hematoma after thoracoabdominal aortic aneurysm repair: An underreported complication of spinal fluid drainage? *Journal of Vascular Surgery* 36:47-50 (2002).

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Yamashita A, Hanna AK, Hirata S, **Dardik A**, **Sumpio BE**. Antisense basic fibroblast growth factor alters the time course of mitogen-activated protein kinase in arterialized vein graft remodeling. *Journal of Vascular Surgery* 37:866-873 (2003).

Haga M, Yamashita A, Paszkowiak J, **Sumpio BE**, **Dardik A**. Oscillatory shear stress increases smooth muscle cell proliferation and Akt phosphorylation. *Journal of Vascular Surgery* 37(6):1277-1284 (2003).

Haga M, Chen A, Gortler D, **Dardik A**, **Sumpio BE**. Shear stress and cyclic strain may suppress apoptosis in endothelial cells by different pathways. *Endothelium* 10(3):1149-157, 2003.

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Frangos SG, Kilaru S, Blume PA, Shin J, **Sumpio BE**. Classification of Diabetic Foot Ulcers: Improving Communication. *Int. J. Angiol.* 11:1-7, 2002.

Gahtan V, Olson ET, **Sumpio BE**. Molecular Biology: A brief overview. *J. Vasc. Surg.* 35 (3): 563-568, 2002.

Frangos SG, Kilaru S, **Sumpio BE**, **Gahtan V**. Effect of gender on outcome following infrainguinal bypass graft surgery: A systematic review. *Connecticut Medicine* 66:137-144, 2002.

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Li W, **Sumpio BE**, Basson M. Sphingosine-1-Phosphate Stimulates Human CACO-2 Intestinal Epithelial Proliferation via p38 Activation and Activates ERK by an Independent Mechanism. *In Vitro Cellular & Developmental Biology-Animal* 38 (4): 246-253, 2002

Yamaguchi S, Yamaguchi M, Yatsuyanagi E, Yun S, Nakajima N, Madri JA, **Sumpio BE**. Cyclic Strain Stimulates Egr-1-Mediated Expression of MT1-MMP in Endothelium. *Lab. Invest.* 82:949-956, 2002.

Lee D, DiLeo K, Gasparro F, **Sumpio BE**. Photochemotherapy of vascular cells with 8-methoxypsoralen and visible light. Differential effects on endothelial and smooth muscle cells. *Photoderm Photoimmunol Photomed* 18(5): 244-252, 2002

Throckmorton D, Kurscheid-Reich D, Rosales OR, Rodriguez-Commes J, Lopez R, **Sumpio B**, Zhong Q, Ding KH, McCarthy R, Barrett PQ, Isales CM. Parathyroid hormone effects on signaling pathways in endothelial cells vary with peptide concentration. *Peptides.* 23(1):79-85, 2002.

Yun S, **Dardik A**, Haga M, Yamashita A, Yamaguchi S, Koh Y, Madri JA, **Sumpio BE**. Sp1 Phosphorylation Induced by Shear Stress Inhibits MT1-MMP Expression in Endothelium. *J. Biol. Chem.* 2002; 277:34808-14

Abir F, Kakisis Y, **Sumpio BE**. Do Vascular Surgery Patients Need a Cardiology Work-up? A review of Pre-operative cardiac clearance guidelines in vascular surgery. *Eur. J. Vasc. Endovasc. Surg* 2003; 25:110-117.

Chen QH, Li W, Quan Z, **Sumpio BE**. Modulation of vascular smooth muscle cell alignment by cyclic strain is dependent on reactive oxygen species and p38 MAPK. *J. Vasc. Surg.* 37:660-668, 2003.

Lee T, Kim SJ, **Sumpio BE**. The role of PP2A in the regulation of p38 MAPK activation in bovine aortic endothelial cells exposed to cyclic strain. *J. Cell. Physiol.* 194 (3): 349-355, 2003.

Lee T, Seo JW, **Sumpio BE**, Kim SJ. Immunobiologic analysis of arterial tissue in Buerger's disease. *Eur. J. Vasc. Endovasc. Surg.* 2003 May; 25(5):451-7.

Li W, Chen Q, Mills I, **Sumpio BE**. Involvement of S6 Kinase and p38 Mitogen Activated Protein Kinase Pathways in Strain-Induced Alignment and Proliferation of Bovine Aortic Smooth Muscle Cells *J. Cell. Physiol.* 195:202-209, 2003

Kakisis J, Abir F, Liapis C, **Sumpio BE**: An Appraisal of different Cardiac Risk Reduction Strategies In Vascular Surgery Patients. *Eur. J. Vasc. Endovasc. Surg.* 2003 Jun; 25(6):493-504

Lee TS, Esemuede N, **Sumpio BE**, **Gahtan V**. Thrombospondin-1 Induces Matrix Metalloproteinase 2 Activation In Vascular Smooth Muscle Cells. *Journal of Vascular Surgery* 38: 147-154, 2003.

Lee TS, Nesselroth SM, Olson ET, Esemuede N, Lawler J, **Sumpio BE**, **Gahtan V**. Thrombospondin-1-induced vascular smooth muscle cell chemotaxis: The role of the type 3 repeat and carboxyl terminal domains. *Journal of Cellular Biochemistry* 2003 Jun 1; 89(3):500-506.

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Zhang J, Li W, **Sumpio BE**, Basson MD. Fibronectin blocks p38 and jnk activation by cyclic strain in Caco-2 cells. *Biochem Biophys Res Commun*. 2003 Jul 4; 306(3):746-749.

Lee L, Blume P, **Sumpio BE**. Charcot joint disease in diabetes mellitus. *Ann. Vasc. Surg* 2003 10:456-62.

Reviews

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Gahtan V. Career development resource – general vascular surgery. *AWS Connections* 2002; 8(1):7-8.

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Paszkwiaik JJ, **Dardik A**. Arterial wall shear stress: Observations from the bench to the bedside. *Vascular and Endovascular Surgery* 37:47-57 (2003).

Sumpio BE, Blume PA. Contemporary management of foot ulcers. In *Trends in Vascular Surgery*, Pearce, W, Matsumura J, Yao J (eds) Precept Press, Chicago, IL, Chapter 28, pp 277-290, 2002

Borromeo JR, **Sumpio BE**. Strategies in preventing intimal hyperplasia. In *Advances in Vascular Surgery*, Whittlemore A, Bandyk D, Cronenwett J, Herrtzer N, White R (eds) Mosby, St. Louis, MO, Chapter 14, pp 201-218, 2002

Evaluation and Management of Cardiovascular Disorders, Abdominal Aortic Aneurysm, Virginia Capasso and **E. Lynne Kelley**, Primary Care A Collaborative Practice, Mosby, 2003

Sumpio BE, Paszkwiaik JJ, Blume PA, Vascular Ulcers, In *Vascular Medicine*, Creager J, Olin J (eds), Mosby, St. Louis MO 2003

Community

Alan Dardik: Representative and coordinator of care to the Jehovah's Witness community, Vascular Surgery

Richard Gusberg: Subcommittee on Student Mentoring, American College of Surgeons---outreach program to attract minority high school students into careers in surgery