

George A. Stouffer, III

ACADEMIC APPOINTMENTS:

Current Position

Henry A. Foscue Distinguished Professor of Medicine and Cardiology
Director of Interventional Cardiology and Director of the Cardiac Catheterization Laboratories
Vice Chief of Cardiology for Clinical Affairs
Director of the UNC Heart Center

University of North Carolina, Chapel Hill NC:

7/04 – present Professor of Medicine, Division of Cardiology
6/01 – present Director of the C.V. Richardson Cardiac Catheterization Laboratory
6/01 – present Director of Interventional Cardiology
11/00 – present Member of the Carolina Cardiovascular Biology Center
9/03 – present Member of the Lineberger Cancer Center
11/00 – 6/04 Associate Professor of Medicine (with tenure)

University of Texas Medical Branch, Galveston, Texas

7/99 – 10/00 Associate Professor of Medicine (with tenure)
7/97 – 10/00 Associate Director of the Cardiac Catheterization Laboratory
7/96 – 10/00 Co-Director, Clinical Research, Division of Cardiology
7/95 – 10/00 Principal Investigator, Sealy Center for Molecular Cardiology
7/95 – 7/99 Assistant Professor of Medicine

POSTGRADUATE MEDICAL TRAINING AT THE UNIVERSITY OF VIRGINIA HEALTH SCIENCES CENTER:

7/94 – 6/95 **Interventional Cardiology Fellowship**
7/92 – 6/94 **Clinical Cardiology Fellowship**
7/90 – 6/92 **Cardiovascular Research Fellowship (NIH-NRSA Fellowship)**
Laboratory of Gary K. Owens Ph.D.
Department of Molecular Physiology and Biological Physics
7/87 – 6/90 **Internal Medicine Residency**

EDUCATION:

Doctor of Medicine

University of Maryland School of Medicine
Baltimore, Maryland May, 1987

Bachelor of Science in Mechanical Engineering

Bachelor of Arts (Mathematics)

Magna Cum Laude
Bucknell University
Lewisburg, Pennsylvania June, 1980

PROFESSIONAL SOCIETIES:

Fellow, American College of Cardiology

Fellow, American College of Physicians

Fellow, American Heart Association Council on Arteriosclerosis,
Thrombosis and Vascular Biology

Fellow, The Society for Cardiac Angiography and Interventions

BOARD CERTIFICATIONS:

Interventional Cardiology, ABIM

Cardiovascular Diseases Subspecialty Board, ABIM

Internal Medicine, ABIM (1990-2000)

National Board of Medical Examiners

RESEARCH AWARDS:

“Thrombin-induced signaling in vascular smooth muscle cells,”

PI = G. Stouffer; RO1HL70213-1, NHLBI, 2002-2006

“Role of thrombospondin mediated cell signaling in TGF β -induced growth of smooth muscle cells”,
Grant-in-Aid, Texas Affiliate, American Heart Association, 1996-1998

“The role of autocrine TGF β in angiotensin-II-induced smooth muscle cell proliferation”, Virginia
Affiliate Fellowship Grant, American Heart Association, 7/91 – 6/92

INDUSTRY GRANTS:

Safety and efficacy of intracoronary TNK in patients with impaired flow during PCI. Genentech
Inc. 1/2003 → present

Target vessel revascularization in patients receiving intracoronary stents in a community based
population. Guidant Inc. 12/2002 → present

YOUNG INVESTIGATOR AWARDS:

American Federation for Medical Research 1999 Junior Faculty Award

First Prize, Astra-Merck Young Investigators Forum (1998)

Finalist, American College of Cardiology Young Investigator Award in Cellular and Molecular
Cardiology (1997)

HONOR SOCIETIES:

Alpha Omega Alpha

Phi Beta Kappa

Tau Beta Pi National Engineering Honor Society

Omicron Delta Kappa National Leadership Honor Society

HONORS AND AWARDS:

- Advisory Assistant Editor, *Journal of Thrombosis and Haemostasis*
- Co-Organizer for the 1st and 2nd International Symposium on Coronary Thrombosis and Atherosclerosis
- *Ad hoc* reviewer for the Atherosclerosis and Inflammation Cardiovascular Sciences Study Section (AICS), NIH
- Member of the Angiography Guidelines committee for the Society of Cardiac Angiography and Intervention
- Member of the Western Review Consortium, American Heart Association
- Co-editor, Cardiology Grand Rounds, *American Journal of the Medical Sciences*
- Member of the AHA 'Invasive Procedures for Management of Cardiovascular Complications of Diabetes' working group
- Managing Editor, *Emedicine*
- First Prize, American College of Physicians Residents Competition
- World Bank Design Award

HONORS AWARDED TO TRAINEES:

- Society of Cardiac Angiography and Intervention/Bracco Diagnostics Inc 2004-2005 Fellowship Program for Research in Cardiac Imaging and Invasive Cardiology – awarded to Robert Kelly
- Doris Duke Clinical Research Fellowship (2004-2005) – awarded to Scott Genshaft
- North Carolina Distinguished Medical Scholar Fellowship – awarded to Jatin Joshi
- Carolina Medical Student Research Grant (2004) – awarded to Skand Bhatt
- National Institutes for Diabetes and Digestive and Kidney Diseases Short Term Research Training (2005) – awarded to Daniel Fox
- National Institutes for Diabetes and Digestive and Kidney Diseases Short Term Research Training (2005) – awarded to Alison Keenan
- Carolina Medical Student Research Grant (2005) – awarded to Paul Colavita

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PUBLICATIONS

Kelly RV and Stouffer GA: Vascular smooth muscle cell microparticles and coronary no-reflow: another piece of the puzzle? *Thromb Haemost* 2005; in press

Pathak A, Zhao R, Monroe DM, Roberts HR, Sheridan BC, Selzman CH, Stouffer GA: Thrombin generation in vascular tissue. *J Thromb Haemost* 2005; in press

Kelly RV, Crouch E, Krumnacher H, Cohen MG, Stouffer GA: Safety of adjunctive intracoronary thrombolytic therapy during complex PCI: Initial experience with intracoronary TNK. *Cathet Cardiovasc Intervent* 2005, in press

Stouffer GA, Pathak A, Zhao R, Huang J. Down but not out: New insights into the role of $\alpha_v\beta_3$ integrins in vascular healing. *Arterioscler Thromb Vasc Bio* 2005; 25:1309-1310

Cohen MG, Pascua JA, Garcia-Ben M, Rojas-Matas CA, Berrocal DH, Tan WA, Stouffer GA, Gabay JM, Fernandez AD, Halac ME, Grinfeld LR. A Simple Prediction Rule for Significant Renal Artery Stenosis in Patients Undergoing Cardiac Catheterization. *Am Heart J* 2005; in press

McLaughlin DP, Kelly RV, Santa-Cruz RA, Stouffer GA. Renal fibromuscular dysplasia. [Cardiovascular Image]. *Circulation* 2005, in press

Zhao R, Pathak A, Stouffer GA: β_3 Integrin cytoplasmic binding proteins. *Arch Immunol Ther Exp* 2004;52:348-355

Kelly RV, Cohen MG, Runge MS, Stouffer GA: The no-reflow phenomenon in coronary arteries. *J Thromb Haemost* 2004;2:1903-1907

Mohan S, Stouffer GA, Patterson C: The utility of C reactive protein in the detection of atherothrombotic vascular disease: ready for prime time? *J Thromb Haemost* 2004;2:1238-1239

Stouffer GA, Pathak A, Whinna HC, Ohman EM: Effect of multi-element intravascular ultrasound on the anticoagulant potency of enoxaparin. *Am J Cardiol* 2004;93:1453-1454

Osman A, Wasman S, Brizolara A, Otero J, Stouffer GA, Fitzgerald P, Uretsky BF: Effect of Rosiglitazone on restenosis after coronary stenting in type II diabetics. *Am Heart J* 2004;147:e23

Agrawal M, Wodlinger AM, Huggins CE, Tudor GE, Pieper JA, O'Reilly KP, Denu-Ciocca CJ, Stouffer GA, Ohman EM: Effect of n-acetylcysteine on serum creatinine concentrations in patients with chronic renal insufficiency who are undergoing coronary angiography. *Heart Drug* 2004;4:87-91

Goldberg LR, Stouffer GA. Iliac Artery 'Stress Test' [Cardiovascular Image]. *Circulation* 2004,109:1802-1803

Stouffer GA, Hirmerova J, Moll S, Rubery B, Napoli M, Ohman EM, Simpson R: Percutaneous Coronary Intervention in a patient with ITP. *Cathet Cardiovasc Intervent* 2004;61:364-376

Sajid M, Zhao R, Pathak A, Smyth SS, Stouffer GA: $\alpha_v\beta_3$ integrin antagonists inhibit thrombin-induced proliferation and focal adhesion formation in smooth muscle cells. *Am J Physiol Cell Physiol* 2003;285:C1330-C1338

Stouffer GA and Smyth SS: Effects of thrombin on interactions between β_3 integrins and extracellular matrix in platelets and vascular cells. *Arterioscler Thromb Vasc Bio* 2003;23:1971-1978

Wang FW, Osman A, Otero J, Stouffer GA, Waxman S, Afzal A, Anzuini A, Uretsky BF: Distal myocardial protection during percutaneous coronary intervention with an intracoronary beta blocker. *Circulation*; 2003;107:2914-2919

Oswald CT, Menon V, Stouffer GA: The use of D-dimer in emergency room patients with suspected deep vein thrombosis – A test whose time has come. *J Thromb Haemost* 2003;1:635-636

Smith, Jr. SC, Faxon D, Cascio W, Schaff H, Gardner T, Jacobs A, Nissen S, Stouffer GA: Prevention Conference VI: Diabetes and Cardiovascular Disease: Writing Group VI: Revascularization in Diabetic Patients. *Circulation* 2002;105: e165 - e169

Kroll C, Agrawal M, Stouffer GA: Angiographic evidence of coronary-subclavian steal syndrome [Cardiovascular Image], *Circulation* 2002;105:184e,doi:10.1161/01.CIR.0000017400.13819.4D

Lele M, Sajid M, Wajih N, Stouffer GA: Response to the letter of Robert M. Scarborough regarding 'Eptifibatide and 7E3, but not tirofiban, inhibit $\alpha_v\beta_3$ integrin-mediated binding of smooth muscle cells to thrombospondin and prothrombin' *Circulation* 2002;105:46e

Smyth SS, Pathak A, Stouffer GA: In-stent restenosis – More fuel for the fire. *Am Heart J* 2002; 144:577-579

Sajid M, Stouffer GA: The role of $\alpha_v\beta_3$ integrins in vascular healing. *Thromb Haemost* 2002;87:187-193

Wang F, Stouffer GA, Waxman S, Uretsky BF: Late Coronary Stent Thrombosis: Early vs Late Stent Thrombosis in the "Stent Era." *Cathet Cardiovasc Intervent* 2002;55: 142-147

Payne DA, Chamoun AJ, Seifert SL, Stouffer GA: MTHFR 677 C to T mutation: A Predictor of Early-Onset Coronary Artery Disease Risk. *Thromb Res* 2001;103:275-279

Sajid M, Hu Z, Guo H, Li H, Stouffer GA: Vascular expression of integrin-associated protein and thrombospondin increase following mechanical injury. *J Invest Med* 2001;49:398-405

Lele M, Sajid M, Wajih N, Stouffer GA: Eptifibatide and 7E3, but not tirofiban, inhibit $\alpha_v\beta_3$ integrin-mediated binding of smooth muscle cells to thrombospondin and prothrombin. *Circulation* 2001;104:582-587

Patterson C, Stouffer GA, Madamanchi N, Runge MS: New tricks for old dogs: Nonthrombotic effects of thrombin in vessel wall biology. *Circ Res* 2001;88:987-997

Stouffer GA, Patterson C, Runge MS: The role of reactive oxygen species in angiotensin II signaling: the plot thickens. *Arterioscler Thromb Vasc Bio* 2001;21:471-472

Helmy T, Ware DL, Patterson C, Stouffer GA: Focal elastic obstruction of the inferior vena cava. *Cathet Cardiovasc Intervent* 2000;51:494-499

Uretsky BF, Rosanio S, Lerakis S, Wang FW, Smiley M, Stouffer GA, Tocchi M, Estella P: A prospective comparison of angiography-guided coronary stent implantation with high versus very high balloon inflation pressure. *Am Heart J* 2000;140:804-812

Sajid M, Lele M, Stouffer GA: Autocrine thrombospondin partially mediates TGF β 1-induced proliferation of vascular smooth muscle cells. *Am J Physiol* 2000;279:2159-2165

Stouffer GA, Mott L, Brizolara A, Subbarao V. Left main coronary artery disease in adults younger than 50 years old: a comparison with older patients. *Cathet Cardiovasc Intervent* 2000;51:11-17

Sajid M, Hu Z, Lele M, Stouffer GA: Protein complexes involving $\alpha_v\beta_3$ integrins, nonmuscle myosin heavy chain-A and focal adhesion kinase form in thrombospondin-treated smooth muscle cells. *J Invest Med* 2000;48:190-197

Patterson C, Ballinger S, Stouffer GA, Runge MS: Antioxidant vitamins: Sorting out the good and the not so good. *J Am Coll Cardiol* 1999;34:1216-1218

Rosanio S, Tocchi M, Uresky BF, Stouffer GA, Cutler D, Arron J, Otero J, Garg S, Runge MS: Queuing for coronary angiography during severe supply-demand mismatch in a U.S. public hospital: Analysis of a waiting list registry. *JAMA* 1999;282:145-152

Brizolara A, Stouffer GA: Unstable angina - Interesting cases from the University of Texas Medical Branch. *Cardiol Clin* 1999;17:401-414

Subbarao V, Phillips J, Stouffer GA: Update on glycoprotein IIb/IIIa inhibitors. *Current Opinion in Cardiovascular, Pulmonary and Renal Investigational Drugs* 1999;1:56-62

Subbarao V, Phillips J and Stouffer GA: Update on glycoprotein IIb/IIIa inhibitors. *IDrugs* 1998;1:668-674

Stouffer GA, Runge MS: The role of secondary growth factor production in thrombin-induced proliferation of vascular smooth muscle cells. *Semin Thromb Hemost* 1998;24:145-150

Stouffer GA, Hu Z, Sajid M, Jin G, Nakada MT, Hanson SR, Runge MS: β_3 integrins are upregulated following vascular injury and mediate proliferation of cultured smooth muscle cells. *Circulation* 1998; 97:907-915

Stouffer GA: Clinical use of intravenous glycoprotein IIb/IIIa inhibitors. *Fibrinolysis & Proteolysis* 1997;11, Suppl. 2:129-132

Lerakis S, Stouffer GA, Runge MS: New thrombolytics: What is under development? *BioDrugs* 1997;8:24-32

McNamara CA, Sarembock IJ, Bachhuber BG, Stouffer GA, Ragosta M, Barry W, Gimple LW, Powers ER, Owens GK: Thrombin and vascular smooth muscle cell proliferation: Implications for atherosclerosis and restenosis. *Semin Thromb Hemost* 1996;22:139-144

Stouffer GA, Schmedtje JF, Gulba D, Huber K, Bode C, Aaron J, Runge MS: Restenosis following percutaneous revascularization - the potential role of thrombin and the thrombin receptor. *Ann Hematol* 1996;73:S39-S42

Stouffer GA, Runge MS: Thrombin and Restenosis - Has the question been answered? *J Am Coll Cardiol* 1996;28:1856-1857

Ragosta M, Barry W, Gimple LW, Gertz SD, McCoy KW, Stouffer GA, McNamara CA, Powers ER, Owens GK, Sarembock IJ: The effect of thrombin inhibition with desulfato-hirudin on the early kinetics of cellular proliferation after balloon angioplasty in atherosclerotic rabbits. *Circulation* 1996; 93:1194-1200

Stouffer GA, Owens GK: TGF- β promotes proliferation of cultured SMC via both PDGF-AA-dependent and PDGF-AA-independent mechanisms. *J Clin Invest* 1994;93:2048-2055

Stouffer GA, LaMarre J, Gonias SL, Owens GK: Activated α_2 -macroglobulin and transforming growth factor- β 1 induce a synergistic smooth muscle cell proliferative response. *J Biol Chem* 1993;268:18340-18344

Stouffer GA, Sarembock IJ, McNamara CA, Gimple LW, Owens GK: Thrombin-induced mitogenesis of vascular SMC is partially mediated by autocrine production of PDGF-AA. *Am J Physiol* 1993;265:C806-C811

Stouffer GA, Shimizu RT, Turla MB, Owens GK: Angiotensin-II- or AVP-induced increases in protein synthesis are not dependent on autocrine secretion of PDGF-AA. *Am J Physiol* 1993;264:C390-C395

Stouffer GA, Humphries JE, Gibson RS, Williams ME: The role of platelets in unstable angina: conversion of chronic stable angina to rest angina concurrent with a rapid increase in the platelet count. *Journal of Vascular Medicine and Biology* 1993;4:9-12

Stouffer GA, Owens GK: Angiotensin II induced mitogenesis of SHR derived cultured smooth muscle cells is dependent on transforming growth factor- β . *Circ Res* 1992;70:820-828

Humphries JE, Stouffer GA, Kelly TE, Rose CE: Hypercoagulability in a patient with Marfan syndrome. *J Med Genet* 1991;28:349-351

Feldman MD, Lewis DD, Stouffer GA, Sarembock IJ: Ampicillin remains inadequate therapy for enterococcal endocarditis. *South Med J* 1991;84:284

Textbook Chapters

Patterson C, Stouffer GA: Atherosclerosis. In Nature Encyclopedia of the Human Genome; Editor-in-Chief David Cooper, Nature Press, Macmillan Publishers Ltd., Hampshire England 2003

Stouffer GA: Angina. In Netter's Internal Medicine; edited by Marschall S. Runge and Andrew Greganti. Icon Publications, Teterboro NJ, 2003

Stouffer GA: Atherosclerosis. In Principals of Molecular Cardiology; edited by Marschall S. Runge and Winston C. Patterson. Humana Press, Totowa NJ 2004

Stouffer GA: Diagnostic Coronary Angiography. In Netter's Cardiology; edited by Marschall S. Runge and E. Magnus Ohman, Icon Publications. Icon Publications, Teterboro NJ, 2004

Kroll CR, Tan W, Stouffer GA: Renal Artery Stenosis; In Netter's Cardiology; edited by Marschall S. Runge and E. Magnus Ohman, Icon Publications. Icon Publications, Teterboro NJ, 2004

Chiles CD, Stouffer GA: Pericardial Disease: Clinical Features and Treatment; In Netter's Cardiology; edited by Marschall S. Runge and E. Magnus Ohman, Icon Publications. Icon Publications, Teterboro NJ, 2004

***Cardiology Grand Rounds Published in
The American Journal of the Medical Sciences***

Kelly RV, Cohen MG, Stouffer GA: Incidence and management of “no-reflow” following percutaneous coronary interventions. *Am J Med Sci* 2005;329:78-85

Riley SJ, Stouffer GA: The antioxidant vitamins and coronary heart disease: Part II – Randomized clinical trials. *Am J Med Sci* 2003;325:15-19

Riley SJ, Stouffer GA: The antioxidant vitamins and coronary heart disease: Part I – Basic science background and clinical observational studies. *Am J Med Sci* 2002;324:314-320

Agrawal M, Stouffer GA: Contrast induced nephropathy after coronary angiography. *Am J Med Sci* 2002;323:252-258

Gupta R, Stouffer GA: Deep venous thrombosis – a review of the pathophysiology, clinical features and diagnostic modalities. *Am J Med Sci* 2001;322:358-364

Jacobs WF, Chamoun AJ, Stouffer GA: Mitral valve prolapse: A review of the literature. *Am J Med Sci* 2001;321:401-410

Rosanio S, Tocchi M, Uretsky BF, Stouffer GA: Current status of peripheral artery stenting. *Am J Med Sci* 2000;319:111-117

Mott L, Brizolaro A, McCreery C, Stouffer GA: Left main coronary artery disease. *Am J Med Sci* 1999;318:406-412

Lerakis S, Barry WL, Stouffer GA: Use of coronary flow reserve to evaluate the physiologic significance of coronary artery disease. *Am J Med Sci* 1999;318:281-285

Subbarao VD, Phillips JR, Stouffer GA: Use of glycoprotein IIb/IIIa inhibitors in patients with coronary artery disease. *Am J Med Sci* 1999;318:107-114

Rozo JC, Barry WL, Stouffer GA: New treatment strategies in patients with impaired left ventricular systolic function. Part II: Treatment of moderate to severe cardiac dysfunction. *Am J Med Sci* 1999;317:312-317

Rozo JC, Barry WL, Stouffer GA: New treatment strategies in patients with impaired left ventricular systolic function. Part I: Background and treatment of mild cardiac dysfunction. *Am J Med Sci* 1999;317:247-250

Lerakis S, Lindner JR, Stouffer GA: Use of echocardiography in patients with known or suspected endocarditis. *Am J Med Sci* 1998;316:209-212

Rosanio S, Tocci M, Stouffer GA; Use of stress testing to evaluate patients with recurrent chest pain after percutaneous coronary revascularization. *Am J Med Sci* 1998;316:46-52

Tavackoli S, Stouffer GA, Sheahan RG: Amiodarone-induced thyrotoxicosis. *Am J Med Sci* 1997;314:97-100

Abreo G, Zwishenberger JB, Farrell RW, Ahmad M, Stouffer GA: Aortic root pseudoaneurysm following aortic dissection repair. *Am J Med Sci* 1997;314:273-275

Lerakis S, Stouffer GA: Hypertrophic cardiomyopathy - Presentation and pathophysiology. *Am J Med Sci* 1997;314:324-329

Stouffer GA, Uretsky BF: Hemodynamic changes of aortic regurgitation. *Am J Med Sci* 1997;314:411-414

Parmar R, Stouffer GA: Use of glycoprotein IIb/IIIa inhibitors in acute coronary syndromes. *Am J Med Sci* 1997;314:31-36