

CURRICULUM VITAE

Date: 12/10/2008

PERSONAL DATA

Name:	Allan Schwartz, MD
Date of Birth:	January 22, 1947
Place of Birth:	New York, New York
Citizenship:	United States

ACADEMIC TRAINING

1967	BS - Magna Cum Laude City College of New York New York, New York
1968	MA - Physics Harvard University Cambridge, Massachusetts
1974	MD College of Physicians & Surgeons Columbia University New York, New York

TRAINEESHIP

7/1/74 - 6/30/75	Medical Intern Presbyterian Hospital New York, New York
7/1/75 - 6/30/76	Medical Resident Presbyterian Hospital New York, New York
7/1/74 - 6/30/76	Visiting Fellow College of Physicians & Surgeons Columbia University New York, New York
7/1/76 - 6/30/78	Clinical and Research Fellow in Cardiology Harvard Medical School Boston, Massachusetts
7/1/76 - 6/30/78	Clinical Cardiology Fellowship Massachusetts General Hospital Boston, Massachusetts

MEDICAL LICENSURE

1975 New York - 124208

BOARD CERTIFICATION

1977 Diplomate, American Board of Internal Medicine
Diplomate, Subspecialty Board of Cardiovascular
Diseases

PROFESSIONAL ORGANIZATIONS AND SOCIETIES

American College of Cardiology, Fellow
American College of Physicians, Fellow
American Heart Association, Member
New York State Society of Medicine, Member
Paul Dudley White Society, Member
American Heart Association - Council on Clinical Cardiology,
Fellow
American Heart Association - Council on Circulation, Member
Heart Valve Society of America (HVSA) – founding member
Board of Directors – CRF
New York Academy of Medicine - Fellow

ACADEMIC APPOINTMENTS

1978 - 1987	Assistant Professor of Clinical Medicine College of Physicians & Surgeons Columbia University New York, New York
1987 - 1990	Associate Clinical Professor of Medicine College of Physicians & Surgeons Columbia University New York, New York
1990 - 1993	Clinical Professor of Medicine College of Physicians & Surgeons Columbia University New York, New York
1990 - 1999	Director, Cardiac Catheterization Laboratory College of Physicians & Surgeons Columbia University New York, New York
1993 - 1996	Margaret Milliken Hatch Clinical Professor of Medicine College of Physicians & Surgeons

	Columbia University, New York, New York
1996- 1999	Margaret Milliken Hatch Professor of Clinical Medicine College of Physicians & Surgeons Columbia University, New York, New York
1994 - 1999	Associate Director, Division of Cardiology Department of Medicine College of Physicians & Surgeons Columbia University, New York, New York
1999 – Present	Chief, Division of Cardiology Department of Medicine College of Physicians & Surgeons Columbia University, New York, New York
1999 - Present	Harold Ames Hatch Professor of Clinical Medicine College of Physicians & Surgeons Columbia University, New York, New York
2003 - Present	Vice Chairman for Clinical Affairs Department of Medicine College of Physicians & Surgeons Columbia University, New York, New York
2005 – Present	Seymour Milstein Professor of Clinical Medicine College of Physicians & Surgeons Columbia University, New York, New York

HOSPITAL APPOINTMENTS

1978 - 1987	Assistant Attending Physician The Presbyterian Hospital in the City of New York New York, New York
1987 - 1990	Associate Attending Physician The Presbyterian Hospital in the City of New York New York, New York
1990 - Present	Attending Physician The Presbyterian Hospital in the City of New York New York, New York
1990 – 1999	Director of Cardiac Catheterization Laboratory The Presbyterian Hospital in the City of New York New York, New York

2000-Present	Medical Director – Cardiovascular Service Line CUMC campus of NYPH
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HONORS

1967	Magna Cum Laude, City College of New York
1967	Beldin Medal in Applied Mathematics, City College of New York
1967	Phi Beta Kappa, City College of New York
1967 - 1968	Woodrow Wilson National Fellow
1974	Alpha Omega Alpha
1974	Janeway Price (Top Academic Performance in P&S Graduating Class)
1974	Robert F. Loeb Award (Medicine)
1974	Helen Sciarra Award (Neurology)
1974	Herbert J. Bartelstone Award (Pharmacology)
1974	Frederick F. Gay Award (Microbiology)
1993	Margaret Milliken Hatch Clinical Professor of Medicine
1996	Margaret Milliken Hatch Professor of Clinical Medicine
1997 – 2008	New York's Best Doctors – New York Magazine
1999	Harold Ames Hatch Professor of Clinical Medicine
2005 - present	Seymour Milstein and Harold Ames Hatch Professor of Clinical Medicine
2007	Teacher of the Year - Cardiology

UNIVERSITY AND HOSPITAL COMMITTEES

1978 - Present	Fellow Selection Committee – Division of Cardiology
1978 - Present	Education Committee, Division of Cardiology
1980 - 1990	Intern Selection Committee
1990 - 1994	Department of Medicine Representative to the Medical Board
1990 - Present	Planning Committee of the Cardiology Division for Cardiac Invasive and Non-Invasive Facilities
1990 – 1993	Cardiac Services Committee
1990 - Present	Advisor, Cardiac Outreach Program
1991 - 1993	Dean's Advisory Committee on Clinical Practice
1992 - 1993	Chairman, Dean's Special Committee on Clinical Teaching
1993 - 1994	Ophthalmology Chair Search Committee
1996 - Present	Executive Committee of Department of Medicine
1996 – Present	Clinical Operations Council, Milstein Hospital
1997 – 2004	Columbia-Presbyterian Medical Center Sentinel Events Committee
2001 - 2004	Dean's Strategic Planning Committee for Patient Care-Executive Subcommittee
2002 – Present	University Billing Oversight Committee
2004 – 2005	Search Committee for Urology Chair
2004 – 2006	Search Committee for Pediatric Cardiology Chief
2004 – Present	Leadership Committee of the Columbia University Campaign

2004 – 2005	Leadership Committee of the NYPH Campaign
2005 - 2007	Planning Committee Trans Catheter Therapeutics Symposium (TCT), Washington, DC
2006	Search Committee for Dean and Executive Vice President of the Faculty of Health Sciences
2007	Executive Committee, The Helen and Clyde Wu Center for Cardiac Research
2006 – Present	Heart Center Outreach & Practice Development Committee, NYPH
2006 - Present	Heart Center Steering Committee, NYPH
2000 - Present	Cardiovascular Service Line – Medical Director
2000 - Present	NYPH Cardiac Executive Council
2007 – 2008	Search Committee for Department of Medicine Chairman
2008 – Present	Search Committee for Department of Radiology Chairman

OUTSIDE COMMITTEES

8/2005 – Present	Mitral Repair Advisory Board (Edwards Lifesciences)
2005 - Present	William J. Clinton Foundation Liaison to AHA Committee on Atherosclerosis, Hypertension & Obesity in the Young
2005 – Present	Board of Directors – Cardiology Research Foundation
2006 – Present	NBA – Chair of committee to develop CV screening for NBA Athletes - Protocol instituted 2006 Season

TEACHING EXPERIENCE

1978 - Present	Medical Housestaff Orientation Series, Lectures on Aortic Dissection, Cardiac Tamponade, and Hypertensive Emergencies, Mitral and Aortic Regurgitation
1978 - Present	Pathophysiology (Second Year Medical Student Course), Preceptor and Lecturer: Clinical Manifestations of Ischemic Heart Disease, Aortic and Mitral Valve Disease, Pericardial Disease, Cardiac Tumors
1978 – Present	Preceptor, Fourth Year Elective in Cardiology
1978 - Present	Attending, Coronary Care Unit, Medical Intensive Care Unit, Cardiology Consult Service, Cardiac Step-Down Unit
1978 - Present	Medical Grand Rounds, lectures: Aortic Stenosis, Acute Mitral Regurgitation, Endomyocardial Disease, Aortic Dissection, Atrial Myxoma, Current Status of PTCA, Percutaneous Valve Therapy
1980 – Present	Course Director, Cardiology Rotation Taken by Cardiac

Surgical Fellows

1988 – 1990	Lecturer, Cardiology Section, MKSAP-VIII Review Course for New York Area
1992	Course Director, Interventional Cardiology for the Non-Interventional Cardiologist, Columbia-Presbyterian Medical Center
1993 - 1997	Lecturer - CPMC Heart Institute - Cardiology Workshop
2006 – Present	Department of Medicine Noon Conference Lectures: Valvular Disease – Mitral/Aortic Regurgitation, Valvular Disease, Mitral/Aortic Stenosis

CLINICAL RESEARCH

1981 – 1990	TIMI Trials - Investigator
1998	Principal Investigator, CURE (Columbia University Restenosis Elimination) Safety Trial
2001 – Present	Safety Monitoring Board of the SIRIUS Trial
2004 - 2005	Co-Investigator, EVEREST I Trial: Percutaneous Mitral Valve Repair
2005 - Present	Co-Investigator: EVEREST II Trial, Percutaneous Mitral Valve Repair System: Randomized Comparison with Surgery

BIBLIOGRAPHY

A. SCIENTIFIC PAPERS:

1. **Schwartz A**, Vignola P, Walker H, King ME, Goldblatt A. Echocardiographic estimation of aortic stenosis. *Annals of Internal Medicine* 1978; 89:329-335.
2. Wiedermann JG, Amols H, **Schwartz A**, Marboe C, Weinberger JZ. Intracoronary irradiation markedly reduces restenosis after balloon angioplasty in a porcine model. *J Am Coll Cardiol* 1994; 23:1491-1498.
3. Wiedermann JG, Leavy JA, Amols H, **Schwartz A**, Homma S, Marboe C, Weinberger J. Effects of high-dose intracoronary irradiation on vasomotor function and smooth muscle histopathology. *Am J Physiol* 1994; 267 (Heart Circ Physiol 36):H125-H132.

4. Leibowitz D, Smith C, Michler RE, Ginsburg M, Schulman LL, McGregor CC, DiTullio MR, **Schwartz A**, Homma S. Usefulness of routine angiography for coronary artery disease detection in patients undergoing lung transplant evaluation. *J Heart Lung Transplantation* 1994; 13:701-3.
5. Leibowitz DW, Levin HR, Weslow RG, Slater J, DiTullio MR, **Schwartz A**, Rose EA, Homma S. Intravascular ultrasound imaging of the heartmate 1000 IP left ventricular assist device. *J Am Soc Echo* 1994; 7(6):624-630.
6. Wiedermann J, **Schwartz A**, Apfelbaum M. Anatomic and physiologic heterogeneity in syndrome X patients: an intravascular ultrasound study. *J Am Coll Cardiol* 1995; 25:1310-1317.
7. Wiedermann J, Marboe C, Amols H, **Schwartz A**, Weinberger J. Intracoronary irradiation markedly reduces neointimal proliferation after balloon angioplasty in swine: persistent benefit at 6-month follow-up. *J Am Coll Cardiol* 1995; 25:1451-1456.
8. Wang W, Chen HJ, Giedd KN, **Schwartz A**, Cannon PJ, Rabbani LE. T cell lymphokines, interleukin-4 and gamma interferon, modulate the induction of vascular smooth muscle cell tissue plasminogen activator and migration by serum and platelet-derived growth factor. *Circ Res* 1995; 77(6):1095-1106.
9. Ravalli S, Li Mandri G, DiTullio M, Marboe C, Chin S, Sacco RL, Santiago D, **Schwartz A**, Homma S. In-vitro intravascular ultrasound imaging of human cerebral arteries. *J Neuroimaging*; 1996; 6:71-75.
10. Wang W, Chen HJ, **Schwartz A**, Cannon PJ, Stein CA, Rabbani LE. Sequence-independent inhibition of in vitro vascular smooth muscle cell proliferation, migration, and in vivo neointimal formation by phosphorothioate oligodeoxynucleotides. *J Clin Invest* 1996; 98: 443-450.
11. Weinberger J, Amols H, Ennis RD, **Schwartz A**, Wiedmann JG, Marboe C. Intracoronary irradiation: dose response for the prevention of restenosis in swine. *International Journal of Radiation Oncology, Biology Physics* 1996; 36(4):767-775.
12. Wang W, Chen HJ, **Schwartz A**, Cannon PJ, Rabbani LE. T cell lymphokines modulate vascular smooth muscle cell fibrinolysis and migration induced by basic fibroblast growth factor. *Am J Physiol: Cellular Physiology*, 1997; 272 (Cell Physiol 41):C392-C398.
13. Wang W, Chen HJ, Warshofsky M, **Schwartz A**, Stein CA, Rabbani LE. Effects of S-dC28 on vascular smooth muscle cell adhesion and plasminogen activator production. *Antisense and Nucleic Acid Drug Development* 1997; 7:101-107.
14. Warshofsky MK, Wasserman HS, Wang W, Teng P, Sciacca R, Apfelbaum M, **Schwartz A**, Michler R, Mancini DM, Cannon PJ, Rabbani LE. Plasma levels of

tissue plasminogen activator and plasminogen activator inhibitor-1 are correlated with the presence of transplant coronary artery disease in cardiac transplant recipients. *Am J Cardiol* 1997; 80: 145-149.

15. Yazdani S, Simon AD, Kovar L, Wang W, **Schwartz A**, Rabbani LE. Percutaneous interventions alter the hemostatic profile of patients with unstable versus stable angina. *J Am Coll Cardiol* 1997; 30:1284-1287.
16. Wang W, Chen HJ, **Schwartz A**, Cannon PJ, Stein CA, Rabbani LE. Inhibitory non-sequence-specific effects of cytidine homopolymers on in vivo neointimal formation. *Antisense and Nucleic Acid Drug Development* 1997; 7:559-566.
17. Wang W, Chen HJ, Yazdani S, Simon A, **Schwartz A**, Rabbani LE. Interleukin-4 modulation of platelet-derived growth factor-induced smooth muscle cell urokinase plasminogen activator. *J Thrombosis and Thrombolysis* 1998; 5:119-123.
18. Wang W, Chen HJ, Sun J, Benimetskaya L, **Schwartz A**, Cannon P, Stein CA, Rabbani LE. A comparison of guanosine-quartet inhibitory effects versus cytidine homopolymer inhibitory effects on rat neointimal formation. *Antisense and Nucleic Acid Drug Development* 1998; 8:227-236.
19. Yazdani S, Simon AD, Vidhun R, Gulotta C, **Schwartz A**, Rabbani LE. Inflammatory profile in unstable angina versus stable angina in patients undergoing percutaneous interventions. *Am Heart J* 1998; 136:357-361.
20. Simon AD, Giedd KN, **Schwartz A**, Wang W, Chen HJ, Marboe CA, Rabbani LE. Porous balloon delivery of S-dC28 does not prevent restenosis in the porcine coronary artery model of balloon injury (Letter to the Editor). *Antisense and Nucleic Acid Drug Development* 1999; 9:549-553.
21. Simon AD, Yazdani S, Wang W, **Schwartz A**, Rabbani LE. Circulating levels of IL-1 β , a prothrombotic cytokine, are elevated in unstable angina versus stable angina. *J Thrombosis and Thrombolysis* 2000; 9:217-222.
22. Eisenberg MS, Chen HJ, Warshofsky MK, Sciacca RR, Wasserman HS, **Schwartz A**, Rabbani LE. Elevated levels of plasma C-reactive protein are associated with decreased survival in cardiac transplant recipients. *Circulation* 2000; 102:2100-2104.
23. Simon AD, Yazdani S, Wang W, **Schwartz A**, Rabbani LE. Elevated plasma levels of interleukin 2 and soluble IL-2 receptor in ischemic heart disease. *Clin Cardiol* 2001; 24:253-256.
24. Warshofsky MK, Dominguez M, Eisenberg MS, Wasserman HS, Sciacca R, Wang W, Simon AD, Morse JH, **Schwartz A**, Angles-Cano E, Rabbani LE. Elevated plasma tissue plasminogen activator and anti-THP-1 antibodies are independently associated with decreased graft survival in cardiac transplant recipients. *Am J Cardiol* 2001; 88:30-34.

25. Feldman T, Wasserman HS, Herrmann HC, Gray W, Block PC, Whitlow P, St Goar F, Rodriguez L, Silvestry F, **Schwartz A**, Sanborn TA, Condado JA, Foster E. Percutaneous mitral valve repair using the edge-to-edge technique: six-month results of the EVEREST Phase I Clinical Trial. J Am Coll Cardiol. 2005; 46(11):2134-40.
26. Wu HD, Maurer M, Friedman RA, Marboe CC, Ruiz-Vazquez EM, Ramakrishnan R, **Schwartz A**, Tilson MD, Stewart AS, Winchester R. The Lymphocytic Infiltration in Calcific Aortic Stenosis Predominantly Clonally Expanded T Cells.

B. CASE REPORTS:

1. Todd G, Rapaport F, **Schwartz A**. Management of an enlarging aortic aneurysm in the presence of radiation induced retroperitoneal fibrosis. J Cardiovascular Surg 1989; 2:233-235.
2. Li Mandri G, **Schwartz A**, Rose EA, Patel MB, Santiago DW, DiTullio MR, Homma S.
3. Atrial septal dissection following mitral valve replacement: A transesophageal echocardiographic demonstration. Am Heart J 1994; 127:219-221.

C. CLINICAL TRIALS:

1. **The TIMI Study Group**. The thrombolysis in myocardial infarction (TIMI) trial: Phase I findings. N Engl J Med 1985; 312:932-936.
2. Hillis LD and the **TIMI Investigators**. High dose intravenous streptokinase for acute myocardial infarction: Preliminary results of a multicenter trial. J Am Coll Cardiol 1985;6:957-962.
3. Williams DO and the **TIMI Investigators**. Intravenous recombinant tissue type plasminogen activator in acute myocardial infarction: A report from NHLBI thrombolysis in myocardial infarction (TIMI) trial. Circulation 1986; 73:338-346.
4. Williams D and the **TIMI Investigators**. Coronary angiography following recombinant tissue type plasminogen activator in acute myocardial infarction: A report from the thrombolysis in myocardial infarction (TIMI) trial. J Am Coll Cardiol 1987; 20(5):45B-50B.
5. Passamani E and the **TIMI Investigators**. The (TIMI) thrombolysis in myocardial infarction phase II pilot: Tissue plasminogen activator (t-PA) followed by percutaneous transluminal coronary angioplasty (PTCA). J Am Coll Cardiol 1987; 10(5):51B-64B.

6. Dalen JE and the **TIMI Investigators**. Six and twelve-month follow-up of the phase I thrombolysis in myocardial infarction (TIMI) trial. *Am J Cardiol* 1988; 179-185.
7. Wackers FJ and the **TIMI Investigators**. Quantitative radionuclide assessment of regional ventricular function after thrombolytic therapy for acute myocardial infarction: Results of phase I thrombolysis in myocardial infarction (TIMI) trial. *J Am Coll Cardiol* 1989; 5:998-1005.
8. Rogers WJ and the **TIMI Investigators**. Variable predictors of good functional outcome following thrombolytic therapy in the thrombolysis in myocardial infarction phase II (TIMI II) pilot study. *Am J Cardiol* 1989; 63:503-512.
9. Roberts R and the **TIMI Investigators**. Immediate versus deferred beta-blockade following thrombolytic therapy in patients with acute myocardial infarction. *Circulation* 1991; 83(2):422-437.

D. REVIEWS, CHAPTERS, EDITORIALS

1. **Schwartz, A.** Chapter on Valvular Heart Disease, *InfoMed Computer Textbook of Medicine*. InfoMed Project, 1988.
2. **Schwartz, A.** Chapter on Mechanical Complications of Myocardial Infarction, *InfoMed Computer Textbook of Medicine*. InfoMed Project, 1988.
3. Jan K-M, Powers E, Reinhart W, Berke A, Nichols A, Watson R, Reison D, **Schwartz A**, Chien S. Altered rheological properties of blood following administrations of tissue plasminogen activator and streptokinase in patients with acute myocardial infarction. In: *Fibrinogen, Thrombosis, Coagulation & Fibrinolysis*, 1st edition. CY Liu and S Chien eds, Plenum Press, New York, 1990; pp 409-417.
4. **Schwartz A.** Balloon angioplasty: An overview. *J Cardiovasc Tech* 1992; 10(3):177-180.
5. **Schwartz A.** Book Review of *Textbook of Interventional Cardiology*. Eric J. Topol, ed. Philadelphia, Pa. WB Saunders Co. 1994. *JAMA* 272(21):1713-1714, Dec. 7, 1994.
6. Rabbani LE, Simon AD, **Schwartz A.** Minimally invasive CABG versus percutaneous coronary interventions for coronary artery disease. In: *Minimally Invasive Cardiac Surgery*, 1st Edition, MC Oz and D Goldstein eds, Humana Press Inc, Totowa 1999; pp 45-54.
7. Simon AD, Warshofsky MK, **Schwartz A.** Restenosis: the clinical problem. In: *Applications of Antisense Therapies to Restenosis*, 1st edition, LE Rabbani ed, Kluwer Academic Publishers, Boston 1999; 1-19.

8. **Schwartz A.** Review of manuscript "Survival of Patients with Aortic Stenosis Referred for Percutaneous Aortic Valve Replacement". Journal of the American College of Cardiology July 2008.

E. ABSTRACTS

1. **Schwartz A,** Vignola P, Walker H, King ME, Goldblatt A. Echocardiographic estimation of aortic valve gradients in aortic stenosis. Clin Res 1978; 26(3):270A.
2. **Schwartz A,** Vignola P, Walker H, King ME, Goldblatt A. Limitations of echocardiographic estimation of aortic valve gradients. Circulation 1978; 58(4, Part II):193.
3. Hardy MA, Dobelle W, Bregman D, Drusin R, **Schwartz A,** Edie R, Reemtsma K. Cardiac transplantation following mechanical circulatory support. ASAIO Transactions 1979; (25): 182.
4. Jan K-M, Reinhart W, Chien S, Berke A, Powers E, Nichols A, Watson R, Reison D, **Schwartz A.** Altered rheological properties of blood following administrations of tissue plasminogen activator and streptokinase in patients with acute myocardial infarction. Circulation 1985; 72(III):413.
5. Wiedermann J, Leavy J, Amols H, Homma S, DiTullio M, Sherman D, Apfelbaum M, **Schwartz A,** Weinberger J. Intracoronary irradiation acutely impairs endothelial and smooth muscle function as assessed by intravascular ultrasound. Presented at the Scientific Session of the AHA, November 1992. Circulation 1992; 86(4):I-188.
6. Li Mandri G, Ravalli S, Homma S, Boxt L, Di Tullio M, Marboe C, Santiago D, **Schwartz A.** Intravascular imaging of human pulmonary arteries gives accurate luminal measurements. Am Rev Resp Dis; 1993; 147.
7. Homma S, Mihalatos D, DiTullio M, Li Mandri G, Santiago D, Kassotis J, Apfelbaum M, **Schwartz A.** Combined use of Doppler guide wire and intravascular ultrasound imaging for assessing absolute flow: An in-vitro validation. J Am Soc Echo 1993; 6:S10.
8. Ravalli S, Li Mandri G, DiTullio M, Marboe C, Chin S, Sacco R, Santiago D, **Schwartz A,** Homma S. In-vitro intravascular imaging of human cerebral arteries. Ann Neurol 1993; 34:253.
9. Wiedermann J, Marboe C, Amols H, **Schwartz A,** Weinberger J. Intracoronary irradiation markedly reduces restenosis after balloon angiography in a porcine model. Presented at the 66th Scientific Session of the AHA, November 1993. Circulation 1993; 88:4(2):I-655.
10. Wiedermann J, Weinberger J, Wasserman H, **Schwartz A,** Apfelbaum M. Anatomic and physiologic heterogeneity in syndrome X patients: an intravascular ultrasound study. Presented at the 66th Scientific Session of the AHA, November

1993. *Circulation* 1993; 88:4(2):I-549.
11. Wiedermann J, Mohr J, Homma S, **Schwartz A**, Apfelbaum M. Transvenous carotid ultrasound imaging: a novel approach to visualization of the extracranial carotid artery. Presented at the 66th Scientific Session of the AHA, November 1993. *Circulation* 1993; 88:4(2):I-658.
 12. Ravalli S, LiMandri G, DiTullio MR, Marboe C, Sacco RL, Santiago DW, Apfelbaum M, **Schwartz A**, Homma S. Intravascular ultrasound imaging of human cerebral arteries: an in-vitro study. *Stroke* 1994; 25:250.
 13. Wang WZ, Chen HJ, Giedd KN, **Schwartz A**, Rabbani LE. Gamma interferon attenuates interleukin-4 augmentation of smooth muscle cell tissue plasminogen activator production. Xth International Symposium on Atherosclerosis. *Atherosclerosis* 1994; 109/1,2:183.
 14. Wiedermann JG, Marboe C, Amols H, **Schwartz A**, Weinberger J. Intracoronary irradiation: minimal effective dose for prevention of restenosis in swine. AHA 67th Scientific Sessions, November 1994. *Circulation* 1994; 90(4 Pt 2):I-59.
 15. Wiedermann JG, Marboe C, Amols H, **Schwartz A**, Weinberger J. Intracoronary irradiation markedly reduces restenosis after balloon angioplasty in a porcine model: six month follow-up. AHA 67th Scientific Sessions, November 1994. *Circulation* 1994; 90(4 Pt 2):I-652.
 16. Wiedermann JG, Wasserman HS, Weinberger JZ, **Schwartz A**, Apfelbaum M. Severe intimal thickening by intracoronary ultrasound predicts early death in cardiac transplant recipients. AHA 67th Scientific Sessions, November 1994. *Circulation* 1994; 90 (4 Pt 2):I-93.
 17. Wiedermann JG, Wasserman HS, Weinberger JZ, **Schwartz A**, Apfelbaum M. Coronary vasomotion in Syndrome X patients: an intravascular ultrasound study of exercise response and propranolol effect. AHA 67th Scientific Sessions, November 1994. *Circulation* 1994; 90 (4 Pt 2):I-58.
 18. Wang WZ, Chen HJ, **Schwartz A**, Cannon PJ, Rabbani LE. Effects of interleukin-4 and gamma interferon on human smooth muscle cell fibrinolysis induced by basic fibroblast growth factor. *Blood* 1994; 84(10), Suppl 1:75a.
 19. Wiedermann JG, Drusin R, Levin H, **Schwartz A**, Apfelbaum M. Unexplained heart failure in cardiac transplant recipients: intracoronary ultrasound identifies two distinct subgroups. ACC 44th Scientific Session, May 1995. *J Am Coll Cardiol* 1995; 25(2 Supplement A):334A.
 20. Wang WZ, Chen HJ, Giedd KN, **Schwartz A**, Cannon PJ, Rabbani LE. Effects of interleukin-4 and gamma interferon on platelet-derived growth factor induction of smooth muscle cell fibrinolysis. *J Am Coll Cardiol* February 1995; 218A.
 21. Chen HJ, Wang WZ, Santoni-Rugiu F, **Schwartz A**, Cannon PJ, Rabbani LE. Effects

- of interleukin-4 and gamma interferon on human smooth muscle cell migration. J Invest Med 1995; 43(2):308A.
22. Giedd KN, Dobroski D, Wang WZ, Chen HJ, **Schwartz A**, Rabbani LE. Effects of gamma interferon and interleukin-4 on growth-arrested human aortic smooth muscle cell proliferation. J Invest Med 1995; 43(2):309A.
 23. Wang WZ, Chen HJ, Dobroski D, **Schwartz A**, Cannon PJ, Rabbani LE. Interleukin-4 modulation of smooth muscle cell urokinase-type plasminogen activator production. J Invest Med 1995; 43(2):310A.
 24. Wang W, Chen HJ, Zhang LM, Wachtel C, **Schwartz A**, Stein CA, Rabbani LE. Sequence independent inhibition of smooth muscle cell proliferation by phosphorothioate oligodeoxynucleotides. Circulation 1995; 92(8):I-298.
 25. Wang W, Benimetskaya L, Chen HJ, **Schwartz A**, Stein CA, Rabbani LE. Phosphorothioate oligodeoxynucleotides inhibit vascular smooth muscle cell fibrinolysis and migration sequence independently. Circulation 1995; 92(8):I-354.
 26. Wang W, Chen HJ, Warshofsky M, **Schwartz A**, Cannon PJ, Rabbani LE. Gamma interferon inhibits platelet-derived growth factor induction of smooth muscle cell fibrinolysis and migration. Circulation 1995; 92(8):I-805.
 27. Wiedermann JG, Marboe C, Amols H, **Schwartz A**, Weinberger JZ. Intracoronary irradiation fails to reduce neointimal proliferation after oversized stenting in a porcine model. Presented at the AHA 68th Scientific Sessions, November 1995. Circulation 1995; 92(8):I-146.
 28. Wang WZ, Chen HJ, Zhang LM, **Schwartz A**, Stein CA, Rabbani LE. Fibronectin and laminin attenuate phosphorothioate oligodeoxynucleotide sequence-independent inhibition of vascular smooth muscle cell adhesion. J Invest Med 1996; 44(3):246A.
 29. Warshofsky MK, Wasserman HS, Wang WZ, Teng PI, Weinberger JZ, **Schwartz A**, Mancini DM, Rabbani LE. Serum lipids in cardiac transplant recipients with angiographic accelerated graft atherosclerosis. J Invest Med 1996; 44(3):209A.
 30. Simon AD, Yazdani S, Wang W, **Schwartz A**, Rabbani LE. T-cell lymphokines in stable and unstable angina. First Joint Meeting of the International Cytokine Society and the International Society for Interferon and Cytokine Research. European Cytokine Network 1996; 7(3): 632.
 31. Warshofsky MK, Wasserman HS, Wang W, Teng P, **Schwartz A**, Rabbani LE. Plasma tissue plasminogen activator and plasminogen activator inhibitor - 1 antigen levels correlate with transplant coronary artery disease. Circulation 1996; 94(8):I-112.
 32. Chen HJ, Wang W, Simon AD, **Schwartz A**, Cannon PJ, Stein CA, Rabbani LE. Phosphorothioate oligodeoxynucleotide sequence - independent inhibition of in

- vivo neointimal smooth muscle cell proliferation after vascular injury. *Circulation* 1996; 94 (8):I-706.
33. Wang W, Chen HJ, Simon AD, **Schwartz A**, Cannon PJ, Rabbani LE. Gamma interferon attenuates smooth muscle cell urokinase plasminogen activator and migration induced by basic fibroblast growth factor. *Circulation* 1996; 94(8):I-512.
 34. Simon AD, Yazdani S, Wang W, **Schwartz A**, Rabbani LE. Markers of T-lymphocyte activation are elevated in stable angina but not unstable angina. *Circulation* 1996; 94(8):I-81.
 35. Simon AD, Yazdani S, Wang W, **Schwartz A**, Rabbani LE. Inflammatory cytokines in stable versus unstable angina. *J Am Coll Cardiol* 1997; 29(2 Supplement A):233A.
 36. Yazdani S, Kovar LI, Simon AD, Wang W, Gulotta C, **Schwartz A**, Rabbani LE. Serial hemostatic factor measurements in coronary interventions for stable versus unstable angina. *J Am Coll Cardiol* 1997; 29(2 Supplement A):12A.
 37. Wang W, Chen HJ, Yazdani S, Campbell M, **Schwartz A**, Stein CA, Rabbani LE. Length-dependency of phosphorothioate oligodeoxynucleotide non-sequence specific inhibitory effects on in vitro vascular smooth muscle cell proliferation and migration. *J Am Coll Cardiol* 1997; 29(2 Supplement A):243A.
 38. Warshofsky MK, Wasserman HS, Wang W, **Schwartz A**, Mancini D, Rabbani LE. Elevated plasma tissue plasminogen activator and fibrin D-dimer levels are associated with decreased graft survival in cardiac transplant recipients. *The Journal of Heart and Lung Transplantation. Seventeenth Annual Meeting and Scientific Sessions* 1997; 16(1):86.
 39. Wang W, Chen H-J, Sun J, **Schwartz A**, Stein CA, Rabbani LE. Comparable inhibitory effects of G-quartet PS oligos and cytidine homopolymers on rat neointimal formation. Presented at the American College of Cardiology 47th Annual Scientific Session, Atlanta, GA, April 1, 1998. *J Am Coll Cardiol* 1998; 32(2):556.
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F. INVITED LECTURES

1. **AHA 67th Scientific Sessions**, Council on Atherosclerosis. Can restenosis be prevented? November 1994.
2. **ACCEL** Vol. 26, No. 12. 1995 Restenosis: Overview of Angioplasty Trial Results.
3. **AHA 68th Scientific Sessions, Symposium on Restenosis**. Moderator, Council on Clinical Cardiology. November 1995.
4. **AHA 69th Scientific Sessions**, MidCAB: A Cardiologist's Perspective. November 1996.
5. **The Society for Cardiac Angiography and Interventions**, 22nd Annual Meeting: Intracoronary Radiation - the Next 5 Years. May 1999.
6. **Valves in the Heart of the Big Apple**: American College of Cardiology CME course: Percutaneous Treatment of Valvular Heart Disease. April 2000.
7. **Valves in the Heart of the Big Apple**: American College of Cardiology CME course: Cholesterol and Progression of Aortic Stenosis. April 2001.
8. **Valves in the Heart of the Big Apple**: American College of Cardiology CME course: Criteria for Operating on the Asymptomatic Patient with Aortic Stenosis – Can we defend them? April 2002.

9. **Valves in the Heart of the Big Apple:** American College of Cardiology CME course: April 2003.
10. **American College of Cardiology,** Didactic Session: Management of Mitral Valve Regurgitation, 2003.
11. **Transcatheter Therapeutics (TCT) 2004, Washington, DC.** Moderator: Percutaneous Valve Repair, Debate Moderator: PFO: To close or not; 2004.
12. **Hanshin Heart Valve Symposium.** Hanshin, Japan. Lectures: Percutaneous treatment of Valvular Heart Disease, Percutaneous Mitral Valve Repair. October 2004.
13. **Society for Heart Valve Disease.** Vancouver, Canada; Lecture: Percutaneous Mitral Valve Repair. June 2005.
14. **Valves in the Heart of the Big Apple:** American College of Cardiology CME course: Catheter-based valve repair: Techniques and the current data. April 2005
15. **American College of Cardiology Scientific Sessions 2005.** Orlando, FL. ACCEL Interview: Percutaneous Mitral Valve Repair, 2005.
16. **American Association of Thoracic Surgery.** Chicago, IL. Lecture: Timing of Surgical Intervention in Patients with Mitral Regurgitation, September 2005
17. **International Valve Symposium. Long Beach, CA.** Lecture: Mitral Valve Repair: Edge to Edge Clip Approach, November 2005.
18. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, DC. Lecture: When to Operate II: Strategic decision-making in the treatment of patients with mitral regurgitation. Moderator: Transcatheter Valve Therapy is the Next Interventional Folly: A Bridge too Far! November 2005.
19. **ACC 2006 – 55th Annual Scientific Session.** Atlanta, GA. Lecture: Percutaneous Mitral Repair Techniques. March 2006.
20. **World Congress of Cardiology 2006.** Barcelona, Spain. Lecture: Echo Guided Percutaneous Valve Repair. September 2006.
21. **PICS 2006 (Pediatric & Adult Interventional Therapies for Congenital & Valvular Heart Disease).** Las Vegas, NV. Lecture: When to Operate: Guidelines for Medical & Surgical Management of Mitral Valve Disease. September 2006.
22. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, DC. Lecture: Which patients are candidates for Transcatheter mitral valve therapy? Now & the Future: A Interventionalist's Viewpoint. November 2006.
23. **Valves in the Heart of the Big Apple.** New York, NY. American College of

Cardiology CME course: Transcatheter Aortic Valve Replacement-Current Techniques and Results. April 2007.

24. **PICS 2007 (Pediatric & Adult Interventional Therapies for Congenital & Valvular Heart Disease).** Las Vegas, NV. Lecture: Which Patients are suitable Candidates for Transcatheter Mitral Valve Therapy? July 2007.
25. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, D.C. Physiology of Mitral Regurgitation, Clinical Decision Making in Functional and Degenerative Mitral Regurgitation. October 2007.
26. **59th Annual Conference of Cardiological Society of India.** Percutaneous Valve Replacement. Hyderabad, India. December 2007.
27. **University Of Michigan Grand Rounds.** Percutaneous Valve Replacement. December 2007.
28. **EVEREST II Investigator Meeting.** San Francisco, California. Indications for MR Treatment. January 10, 2008.
29. **ACC 2008 – 57th Annual Scientific Session.** . Chicago, Illinois. Understanding Mitral Regurgitation: Insights and Interventional Therapy for Structural and MR. March 31, 2008.
30. **Transcatheter Valve Therapy (TVT) Symposium.** Seattle, Washington. Therapeutic Alternatives for Mitral Regurgitation: From Updated Guidelines to Clinical Practice. June 6, 2008.
31. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, D.C. The Valvular Heart Disease Summit – Lecture: Optimizing Medical Therapies in Mitral Regurgitation Patients and the Decision to Operate – From Guidelines to Clinical Practice. October 13, 2008.
32. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, D.C. Minimally Invasive and Advanced Valve Surgery – Lecture: Indications for Aortic and Mitral Valve Replacement and Repair: What do the Guidelines Say and What are the real World Recommendations? October 14, 2008.
33. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, D.C. Valvular Heart Disease I: Diagnosis and Current Therapies - Lecture: Early and Late Surgical Results for Aortic Stenosis and Mitral Regurgitation (Functional and Organic): A Critical Approach. October 14, 2008.
34. **Transcatheter Cardiovascular Therapeutics (TCT) Conference.** Washington, D.C. Lecture: Indications for and Long-Term Outcomes of Surgery for Aortic Stenosis and Mitral Regurgitation: A Literature Review. October 15, 2008.

35. **Innovations in Cardiovascular Interventions Meeting (ICI 2008).** Tel Aviv, Israel. Lecture: Edge to Edge Repair and the Everest Trail. December 9, 2008.