

# Curriculum Vitae

**Date Prepared:** 10-24-2011  
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**Place of Birth:** Baltimore, Maryland

## Education

1989	A.B.	Chemistry	Duke University, Durham, NC
1994	M.D.	Medicine	University of Pennsylvania, Philadelphia, PA
1998		Program in Clinical Effectiveness	Harvard School of Public Health, Boston, MA

## Postdoctoral Training

7/94-6/95	Intern	Internal Medicine	Brigham and Women's Hospital, Boston, MA
7/95-6/97	Resident	Internal Medicine	Brigham and Women's Hospital, Boston, MA
1996-1996	Chief Medical Resident	Internal Medicine	West Roxbury Veteran's Administration Medical Center, West Roxbury, MA
7/97-6/99	Clinical Fellow	Cardiovascular Disease	Brigham and Women's Hospital, Boston, MA
7/99-6/00	Chief Medical Resident	Internal Medicine	Brigham and Women's Hospital, Boston, MA
7/00-6/01	Research Fellow	Clinical Biometrics	Brigham and Women's Hospital, Boston, MA
7/01-6/02	Clinical Fellow	Interventional Cardiology	Brigham and Women's Hospital, Boston, MA

## Faculty Academic Appointments

7/99-6/00	Instructor	Internal Medicine	Harvard Medical School, Boston, MA
7/02-6/07	Assistant Professor	Internal Medicine	Tufts University School of

7/07-6/08	Lecturer	Internal Medicine	Medicine, Boston, MA Harvard Medical School, Boston, MA
7/08-	Assistant Professor	Internal Medicine	Harvard Medical School, Boston, MA

### **Appointments at Hospitals/Affiliated Institutions**

9/96-2/01	In-Hospital Staff	Internal Medicine	South Shore Hospital, South Weymouth, MA
11/96-7/01	Courtesy Staff	Internal Medicine	Whidden Memorial Hospital, Everett, MA
9/98-5/02	Adjunct Staff	Cardiovascular Division	Cape Cod Hospital, Hyannis, MA
10/99-7/02	Adjunct Staff	Internal Medicine	Hallmark Health Systems, Melrose-Wakefield Hospital, Wakefield, MA
6/02-5-07	Active Staff	Cardiovascular Division	Caritas St. Elizabeth's Medical Center, Boston, MA
3/04-6/07	Consulting Staff	Cardiovascular Division	Caritas Norwood Hospital, Norwood, MA
6/05-5/09	Active Staff	Cardiovascular Division	Caritas Good Samaritan Medical Center, Brockton, MA
6/06-5/07	Associate Staff	Cardiovascular Division	Caritas Carney Hospital, Dorchester, MA
2/07-	Active Staff, Associate Physician	Cardiovascular Division	Brigham and Women's Hospital, Boston, MA
2/07-	Active Staff		Metro-West Medical Center, Natick, MA
3/08-	Active Staff	Cardiovascular Division	Children's Hospital, Boston, MA
6/09-	Consulting Staff	Medical Oncology	Dana-Farber Cancer Institute, Boston, MA

### **Major Administrative Leadership Positions**

#### **Local**

2002-2007	Associate Director, Cardiac Catheterization Laboratory	Caritas St. Elizabeth's Medical Center, Boston, MA
2002-2007	Director, Clinical Research, Cardiac Catheterization	Caritas St. Elizabeth's Medical Center, Boston, MA
2003-2004	Interim Director, Cardiac Catheterization Laboratory	Caritas St. Elizabeth's Medical Center, Boston, MA
2003-2007	Associate Director, Cardiovascular Disease Training Program	Caritas St. Elizabeth's Medical Center, Boston, MA
2004-2007	Director, Quality Assurance, Cardiac Catheterization Laboratory	Caritas St. Elizabeth's Medical Center, Boston, MA

2006-2007	Director, Interventional Cardiovascular Disease Training Program	Caritas St. Elizabeth's Medical Center, Boston, MA
2007-2009	Director, Clinical Trials Unit, Cardiac Catheterization Laboratory	Brigham and Women's Hospital, Boston, MA
2007-	Director, Interventional Cardiovascular Disease Training Program	Brigham and Women's Hospital, Boston, MA

### **Committee Service**

#### Regional

2008-	Clinical Endpoints Committee	Harvard Clinical Research Institute, Boston, MA
2008-2011	Committee on Admissions Subcommittee 2	Harvard Medical School, Boston, MA

#### **National and International**

2004-2005	TIMI 25 EXTRACT Clinical Trial, Clinical Endpoints Committee	TIMI Research Group, Boston, MA
2005-2007	Young Clinician and Clinical Investigators Committee	American Heart Association
2005-2007	TIMI 36 MERLIN Clinical Trial, Clinical Endpoints Committee	TIMI Research Group, Boston, MA
2007	IMPROVE-IT Clinical Trial, Clinical Endpoints Committee	TIMI Research Group, Boston, MA
2007-2009	Diagnostic and Interventional Cardiac Catheterization Committee	American Heart Association
2008-	Data Safety Monitoring Board, Injection of Autologous CD34-Positive Cells for Improved Symptomatic Relief and Ischemic Wound Healing in Subjects with Moderate or High Risk Critical Limb Ischemia	
2008-	Data Safety Monitoring Board, Prediction of Progression of Coronary Artery Disease and Clinical Outcome Using Vascular Profiling of Shear Stress and Wall Morphology (The PREDICTION Study)	
2010-	Trans-radial Access Committee	Society for Cardiac Angiography and Intervention

### **Professional Societies**

1996-	Massachusetts Medical Society	Member
1999-	American Heart Association	Member

2002-	Society for Cardiac Angiography and Intervention	Fellow
2002-	American College of Cardiology	Fellow

### **Editorial Activities**

Ad Hoc Reviewer, Journal for Cardiac Angiography and Interventions  
 Abstract Reviewer, American College of Cardiology Scientific Sessions  
 Ad Hoc Reviewer, Circulation

### **Honors and Prizes**

1988	Duke Futures Scholar	Duke University
1988	Phi Beta Kappa	Duke University
1989	Magna Cum Laude	Duke University
1993	Alpha Omega Alpha	University of Pennsylvania School of Medicine
1994	Dr. Morris Ginsburg Award	University of Pennsylvania School of Medicine
2000	Laennec Society	Young Clinical Award, American Heart Association
2005	Excellence in Teaching Award	Caritas St. Elizabeth's Medical Center

### **Report of Funded and Unfunded Projects**

#### **Funding Information**

2002-2004	REPLACE-2, The Medicines Company, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2003-2004	EVOLVE, Mitsubishi Pharma, Site Principal Investigator, Caritas St. Elizabeth's Medical Center
2003-2004	TIMI-30 PROTECT, Millenium Pharmaceuticals, Site Principal Investigator, Caritas St. Elizabeth's Medical Center
2003-2004	VEGF Gene Transfer to Prevent Coronary Artery Restenosis BB-IND 10051, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2004-2005	Injection of Autologous CD34-Positive Cells for Neovascularization and Symptom Relief in Patients with Myocardial Ischemia. BB IND 11196, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2004-2005	SPIDER, EV3, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2004-2007	CLOSURE I, NMT Medical, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2004-2005	Injection of VEGF-2 In Patients with Class III or IV Angina BB IND 8205, Site Co-Investigator, Caritas St. Elizabeth's Medical Center
2004-2006	ACUITY, The Medicines Company, Site Principal Investigator
2004-2005	DISCOVER Registry, Cordis Corporation, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2005-2007 EVENT Registry, Millenium Pharmaceuticals, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006-2007 RESISTOR, Accumetrics and Schering-Plough, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006 TC-WYRE, Boston Scientific, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006-2007 CHAMPION PCI, The Medicines Company, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006-2007 IMMEDIATE Trial, National Institutes of Health, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006-2007 Renal Guard Trial, PLC Medical, Site Principal Investigator, Caritas St. Elizabeth's Medical Center

2006-2007 MASS-COM Trial, Massachusetts Department of Public Health, Caritas St. Elizabeth's Medical Center

2007-2008 SPIRIT IV, Abbot Vascular, Site Co-Investigator, Brigham and Women's Hospital

2007-2008 CLOSURE I, NMT Medical, Site Co-Investigator, Brigham and Women's Hospital

2007-2008 Renal Guard Trial, PLC Medical, Site Co-Investigator, Brigham and Women's Hospital

2007-2009 MASS-COM Trial, Massachusetts Department of Public Health, Site Co-Investigator, Brigham and Women's Hospital

2007-2008 EVENT Registry, Millenium Pharmaceuticals, Site Co-Investigator, Brigham and Women's Hospital

2008- RESOLUTE Stent Trial, Medtronic, Site Co-Investigator

2008- PROTECT II Impella Clinical Trials, Abiomed, Site Co-Investigator

2009- DAPT Study, Site Co-Investigator

2010- CYPRESS Study, Site Co-Investigator

2010- The Transfusion Trigger Trial in Coronary Artery Disease: A Pilot Study, NIH-NHLBI, Site Principal Investigator

2010- Hybrid Revascularization Observations Study. NIH-NHLBI, Site Co-Investigator

2011- TRYTON Bifurcation Stent Study, TRYTON Medical, Site Principal Investigator

## **Report of Local Teaching and Training**

### **Teaching of Students in Courses**

1997-1999	Introduction to Physical Examination Instructor Four medical students	Harvard Medical School II Two one-hour sessions per year requiring one hour of preparation prior to sessions
1997-2001	Cardiac Pathophysiology Instructor Twenty medical students	Harvard Medical School II Three one-hour sessions per semester requiring two hours of preparation prior to each session
1999-2000	Electrocardiography Core Curriculum Instructor Eight medical students	Harvard Medical School III Twelve one-hour sessions per quarter requiring one hour of preparation prior to each session

2004	Introduction to Coronary Artery Disease and Myocardial Infarction Instructor Four to eight medical students	Tufts University School of Medicine III Four one-hour sessions per year requiring one hour of preparation prior to each session
2005-2007	Preceptor, Ambulatory Cardiology Clinic Two medical students	Tufts University School of Medicine III One half-day session per week requiring minimal preparation

**Clinical Supervisory and Training Responsibilities**

1999-2000	Attending, General Medical Service, Brigham and Women's Hospital Three one-month rotations supervising one resident, two interns, and two medical students per rotation	Three hours of teaching preparation per week
2002-2007	Attending, Cardiac Catheterization Laboratory, Caritas St. Elizabeth's Medical Center, Two days per week supervising two cardiovascular medicine fellows per session	Minimal preparation prior to each session
2002-2007	Attending, Cardiovascular Disease Ambulatory Clinic, Caritas St. Elizabeth's Medical Center One half-day per week supervising a single cardiovascular disease trainee in an outpatient setting.	Minimal preparation prior to each session
2003-2005	Attending, Coronary Care Unit Caritas St. Elizabeth's Medical Center Four one-week rotations per year supervising one cardiovascular medicine fellow, one resident, one intern, and one medical student.	Two hours of preparation per rotation
2007-	Attending, Cardiac Catheterization Laboratory, Brigham and Women's Hospital Three days per week supervising first year cardiovascular disease fellows and interventional cardiology fellows	Minimal preparation prior to each session
2007-	Attending, Interventional Cardiology Clinic, Brigham and Women's Hospital One half day per week supervising interventional cardiology fellows in an ambulatory setting	Minimal preparation prior to each session

## **Formal Teaching of Peers**

- 2003-2004 Introduction to Intravascular Ultrasound  
Boston Scientific and Caritas St. Elizabeth's Medical Center  
Lecturer/Preceptor  
Ten visiting interventional cardiologists and catheterization laboratory staff per session  
Ten total session, two days each  
Five hours of preparation prior to each session
- 2007 Non-invasive Modalities for the Detection of Coronary Artery Disease/Ischemia  
Brigham and Women's Hospital Primary Care Retreat  
Lecturer  
Forty primary care physicians  
One-hour lecture requiring fifteen hours of preparatory time
- 2007 Cases in Chronic Coronary Artery Disease  
Brigham and Women's Hospital Update in Cardiovascular Medicine  
Lecturer/Case Presenter  
Fifty primary care physicians and cardiologists per session  
Three one-hour sessions requiring total of five hours of preparatory time
- 2010 Patent Foramen Ovale: Innocent Bystander or Target for Intervention?  
Brigham and Women's Hospital Update in Cardiovascular Medicine  
Lecturer  
One-hundred primary care physicians and cardiologists  
One fifty minute lecture requiring a total of ten hours of preparatory time
- 2011 Faculty Moderator: Cases in Valvular Heart Disease  
Brigham and Women's Hospital Triennial Valve Symposium  
Two-hundred cardiac surgeons and cardiologists  
Ninety minute case review session requiring ten hours of preparatory time

## **Local Invited Presentations**

- 2002 Medical Grand Rounds, Improving Outcomes in Interventional Cardiology: An Update  
Caritas St. Elizabeth's Medical Center, Lecturer  
Seventy medical students, trainees, and attendings  
One-hour lecture requiring 15 hours of preparatory time
- 2002 Medical Grand Rounds, Improving Outcomes in Interventional Cardiology: An Update  
Caritas Carney Hospital, Dorchester, MA, Lecturer  
Seventy medical students, trainees, and attendings  
One-hour lecture requiring one hour of preparatory time
- 2002-2007 Caritas St. Elizabeth's Medical Center, Internal Medicine Residency Program Morning  
Report Attending  
Twenty-five residents, ten medical students  
Ten one-hour sessions per year with minimal preparation prior to each session
- 2002-2007 Caritas St. Elizabeth's Medical Center, Internal Medicine Resident Program, Core  
Curriculum, Lecturer  
Thirty residents, ten medical students  
Approximately four one hour lectures per year requiring two hours of preparation prior to

each presentation

2002-2007 Caritas St. Elizabeth's Medical Center, Cardiovascular Disease Training Program, Core Curriculum, Lecturer  
 Nine fellows, several residents and medical students  
 Approximately six one hour lectures per year requiring two hours of preparation prior to each presentation

2002-2007 Caritas St. Elizabeth's Medical Center, Cardiovascular Disease Training Program, Cardiac Catheterization Conference, Lecturer/Instructor  
 Nine fellows, several residents and medical students  
 Weekly discussion of cardiac catheterization cases as well as six to eight half-hour lectures per year requiring one-hour of preparation per session

2003 Medical Grand Rounds, Update in Interventional Cardiology: Drug-Eluting Stents  
 Caritas St. Anne's Hospital, Fall River, MA  
 Lecturer  
 Ten attendings, One hour lecture requiring five hours of preparatory time.

2004 Medical Grand Rounds, Evidence Based Approach to the Management of Unstable Angina /Non ST Segment Elevation Myocardial Infarction: 2004 Caritas St. Elizabeth's Medical Center, Lecturer  
 Seventy medical students, trainees, and attendings  
 One-hour lecture requiring fifteen hours of preparatory time

2004-2007 Caritas St. Elizabeth's Medical Center, Cardiovascular Division Morbidity and Mortality Conference, Lecturer/Organizer  
 Twelve attendings, nine general cardiovascular fellows, four subspecialty fellows  
 Monthly conference where specific cases discussed to identify areas of quality improvement requiring two hours of preparation and one hour of contact time per month

2006 Medical Grand Rounds, Update on Clinical Trials of Acute Coronary Syndromes at Caritas St. Elizabeth's Medical Center  
 Caritas St. Elizabeth's Medical Center, Lecturer  
 Seventy medical students, trainees, and attendings  
 Fifteen minute segment of a one hour presentation requiring 3 hours of preparatory time

2006 Medical Grand Rounds, Patent Foramen Ovale, Do We Need Closure?  
 Caritas St. Elizabeth's Medical Center, Lecturer  
 Seventy medical students, trainees, and attendings  
 One-hour lecture requiring ten hours of preparatory time

2006 Medical Grand Rounds, Patent Foramen Ovale, Do We Need Closure?  
 Caritas St. Anne's Hospital, Fall River, MA  
 Lecturer  
 Ten attendings  
 One-hour lecture requiring one hour of preparatory time

2006 Medical Grand Rounds, Patent Foramen Ovale, Do We Need Closure?  
 Caritas Good Samaritan Hospital, Brockton, MA  
 Lecturer  
 Twenty attendings, One-hour lecture requiring one hour of preparatory time

2006 Medical Grand Rounds, Patent Foramen Ovale, Do We Need Closure?  
 Caritas Carney Hospital, Dorchester, MA  
 Lecturer  
 Seventy medical students, trainees, and attendings



- 2006 One-hour lecture requiring one hour of preparatory time  
 Medical Grand Rounds, Patent Foramen Ovale, Do We Need Closure?  
 Caritas Norwood Hospital, Norwood, MA  
 Lecturer
- 2007 Twenty attendings, One-hour lecture requiring one hour of preparatory time  
 Primary Care Conference, Antithrombotic Therapy Following Coronary Stenting  
 Brigham and Women's Hospital, Boston MA  
 Lecturer  
 Fifteen primary care residents
- 2008 One-hour lecture requiring two hours of preparatory time  
 Medical Interns ACLS Course- Brigham and Women's Hospital  
 Acute Coronary Syndromes and Activating the Cardiac Catheterization Laboratory  
 Lecturer  
 Two sessions, thirty medical interns each
- 2010 One-hour lecture requiring five hours of preparatory time  
 Internal Medicine Residency Training Program Conference, Introduction to Cardiac  
 Catheterization  
 Brigham and Women's Hospital, Boston MA  
 Lecturer  
 Fifteen internal medicine residents
- 2011 One-hour lecture requiring twenty minutes of preparatory time  
 Internal Medicine Residency Training Program Conference, Introduction to Right Heart  
 Catheterization  
 Brigham and Women's Hospital, Boston, MA  
 Lecturer  
 Fifteen internal medicine residents  
 One-hour lecture requiring twenty minutes of preparatory time

## **Report of Regional, National and International Invited Teaching and Presentations**

### **Invited Presentations and Courses**

#### **Regional, National and International Invited Presentations and Courses**

##### **Regional**

- 2002 Medical Grand Rounds, Inflammatory Markers of Coronary Artery Disease  
 Southbridge Hospital, Sturbridge, MA  
 Lecturer  
 Twenty staff physicians
- 2007 One hour lecture requiring five hours of preparatory time  
 Medical Grand Rounds, Patent Foramen Ovale: Should We Have Closure  
 Leonard Morse Hospital, Natick, MA  
 Lecturer  
 Forty physicians and support staff
- 2007 One hour lecture requiring one hour of preparatory time  
 Medical Grand Rounds, Patent Foramen Ovale: Should We Have Closure  
 Charlton Memorial Hospital, Fall River, MA

- Lecturer  
Fifteen physicians and support staff  
One hour lecture requiring one hour of preparatory time  
2008 Cardiac Catheterization Conference: Embolic Protection of Saphenous Vein Graft Stenting  
UMass/Memorial Medical Center, Worcester, MA
- Lecturer  
Twenty interventional cardiologists and trainees  
One hour lecture requiring one hour of preparatory time  
2009 Medical Grand Rounds, The Cardiac Catheterization Laboratory: More Than Just Stents  
Leonard Morse Hospital, Natick, MA
- Lecturer  
Forty physicians and support staff  
One hour lecture requiring one hour of preparatory time  
2010 Cardiology Grand Rounds, Patent Foramen Ovale: Do We Need Closure  
South Shore Hospital, S. Weymouth, MA
- Lecturer  
15 physicians (cardiologists, neurologists, and intensivists)  
One hour lecture requiring one hour of preparatory time
- National**
- 2000 Laennec Young Clinician Award Presentation: “A 50-year-old man with shock”  
American Heart Association Scientific Sessions, New Orleans, LA
- 2004 Ongoing and Planned Studies of Myocardial Angiogenesis  
Transcatheter Therapeutics Scientific Sessions, Washington, DC
- 2008 St. Jude Medical Interventional Fellows Course: Embolic Protection for Saphenous Vein Grafts and Elsewhere  
Companion Educational Session to the American College of Cardiology Meeting, Chicago, IL Lecturer  
One-hundred interventional cardiology trainees  
One-hour lecture requiring five hours of preparatory time
- 2009 St. Jude Medical Interventional Fellows Course: Vascular Access: Challenges and Complications  
Companion Educational Session to the American College of Cardiology Meeting, Orlando, FL
- Lecturer  
One-hundred interventional cardiology trainees  
One-hour lecture requiring five hours of preparatory time  
2009 Cardiac Catheterization Conference: Embolic Protection for Saphenous Vein Grafts and Elsewhere.  
St Lukes-Roosevelt Medical Center, New York, NY
- Lecturer  
Twenty interventional cardiologist, trainees, and laboratory staff  
One-hour lecture requiring give hours of preparatory time  
2009 St. Jude Medical Physician Training Seminar: Vascular Access: Challenges and Complications  
Boston, MA
- Lecturer

- 2010 Sixty practicing interventional cardiologists  
One-hour lecture requiring five hours of preparatory time  
St. Jude Medical Interventional Fellows Course: Best Practices in Primary PCI 2010  
Companion Educational Session to the American College of Cardiology Meeting  
Atlanta, GA  
Lecturer  
One-hundred interventional cardiology trainees
- 2010 One-hour lecture requiring five hours of preparatory time  
American College of Cardiology/i2 Summit 2010  
Atlanta, GA  
Symposium Moderator and Speaker: Transradial Catheterization and Intervention  
“Transitioning from femoral to radial: how to get there”  
One hundred and fifty practicing cardiologists
- 2010 Fifteen minute lecture requiring one-hour of preparatory time  
Society for Cardiovascular Angiography and Interventions Boston Trans-Radial Summit,  
2010  
Course Program Co-Director and Speaker: “Starting a Radial Program”
- Created and co-directed a training course for interventional cardiologists from around the  
United States focused on trans-radial access for percutaneous coronary intervention.  
Assembled a world-renowned faculty and put together a curriculum and case  
presentations.  
One hundred and twenty five practicing interventional cardiologists  
Approximately 50 hours of preparation time for assembly of faculty and course as well as  
preparation of presentations
- 2011 Society for Cardiovascular Angiography and Interventions; Trans-radial Intervention  
Program, Philadelphia, PA
- Program Faculty and Speaker
- Lecture: “Starting a Radial Program”  
Moderator: Case sessions and discussion
- 2011 One hundred and fifty practicing interventional cardiologist  
Thirty minute lecture requiring three hours of preparatory time  
St. Jude Medical Interventional Fellows Course: Best Practices in Primary PCI 2011  
Companion Educational Session to the American College of Cardiology Meeting  
New Orleans, LA  
Lecturer  
One-hundred interventional cardiology trainees
- 2011 One-hour lecture requiring five hours of preparatory time  
Society of Cardiovascular Angiography and Interventions Scientific Sessions 2011  
Baltimore, MD  
Symposium Panelist and Speaker: “Tips and Trick on Moving to a Radial First  
Catheterization Laboratory”  
One hundred and fifty practicing cardiologists
- 2011 Fifteen minute lecture requiring one-hour of preparatory time  
Boston Scientific Interventional Cardiology 101 Fellows Preparatory Training Course

Boston, MA  
 Panelist and Lecturer: “Pre-Case Diagnostic Tools”  
 Seventy-five rising interventional cardiology fellows  
 Thirty-five minute lecture requiring ten hours of preparatory time  
 2011 Boston Scientific Interventional Fellows Symposium  
 Panelist and Lecturer: “Introduction to Coronary Guidewires”  
 Twenty interventional cardiology fellows  
 Thirty-five minute lecture requiring two hours of preparatory time

## **Report of Clinical Activities and Innovations**

### **Current Licensure and Certification**

1998 National Board of Medical Examiners  
 1996 Massachusetts Medical License 150869  
 1996 Massachusetts Drug Enforcement Agency Certification  
 1996 Federal Drug Enforcement Agency Certification  
 1997-2007 ABIM Certification in Internal Medicine  
 2001 ABIM Certification in Cardiovascular Diseases  
 2002 ABIM Certification in Interventional Cardiology

### **Practice Activities**

Invasive Cardiac Care	Cardiac Catheterization Laboratory	Brigham and Women’s Hospital	Three full-day sessions per week
Ambulatory Care	Watkins Ambulatory Center	Brigham and Women’s Hospital	One half-day session per week
Ambulatory Care-Interventional Clinic Preceptor	Watkins Ambulatory Center	Brigham’s and Women’s Hospital	One half-day session per week

My primary clinical practice is in interventional cardiology. The majority of my clinical activity is spent at Brigham and Women’s Hospital with one full day per week spent at Children’s Hospital Boston where I participate in coronary cases, adult congenital heart disease cases, and structural heart disease cases. I spend three full days per week in the cardiac catheterization laboratory at Brigham and Women’s Hospital, one half day per week in the outpatient setting, and one half day per week precepting interventional fellows in the interventional cardiology clinic. I take call for the cardiac catheterization laboratory on average of one weekend every two months, and once every seven weeknights.

I perform nearly 500 diagnostic procedures per year and 200 therapeutic procedures per year. I am fully trained and competent in all aspects of percutaneous coronary intervention including balloon angioplasty, stent placement, atherectomy, thrombectomy, and distal protection. I have significant experience in advanced diagnostic modalities including intravascular ultrasound and pressure wire analysis. I have also developed a practice in radial access for cardiac procedures, a technique that has been shown to improve patient comfort and reduce bleeding complications.

I have basic skills in peripheral angiography and have perform IVC filter placements.

I have experience in advanced cardiac support devices including intra-aortic balloon pump counter-pulsation and percutaneous ventricular assist device placement including Impella and Tandem Heart.

I am also developing a practice in structural heart disease with an emphasis on treatment of atrial septal disorders including patent foramen ovale and atrial septal defect. I have experience in trans-septal puncture, mitral valvuloplasty, and aortic valvuloplasty.

## **Report of Education of Patients and Service to the Community**

2007	Speaker	Living with Hypertrophic Cardiomyopathy Brigham and Women's Hospital: Alcohol Septal Ablation	One-hour lecture to 50 patients and families with hypertrophic cardiomyopathy
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## **Peer reviewed publications in print or other media**

- Research investigations

1. Wilson KH, Blitchington R, Shah PB, McDonald G, Gilmore RD, Mallavia, LP. Probe directed at a segment of rickettsia rickettsii rRNA amplified with polymerase chain reaction. J Clin Micro 1989; 27: 2692-6
2. Shah PB, Zasloff MA, Drummond D, Kaplan FS. Spinal deformity in patients who have fibrodysplasia ossificans progressiva. J Bone and Joint Surg 1994; 10(76-A): 1442-0.
3. Shah PB, Ahmed WH, Ganz P, Bittl JA. Bivalirudin compared with heparin during coronary angioplasty for thrombus-containing lesions. J Am Coll Cardiol 1997; 30(5): 1264-9.
4. Shore EM, Xu M, Shah PB, Janoff HB, Deardorff MA, Sovinsky L, Spinner NB, Zasloff MA, Kaplan FS. The human bone morphogenetic protein 4 (BMP-4) gene: molecular structure and translational regulation. Calc Tissue Int 1998; 63(3): 221-9.
5. Shah PB, Cutlip DE, Popma JJ, Kuntz RE, and Ho KKL. Incidence and Predictors of Total Occlusion Following Coronary Stenting. Catheterization and Cardiovascular Interventions 2003; 60(3): 344-1.
6. Losordo DW, Schatz RA, White CJ, Udelson JE, Poh KK, Weinstein R, Kearney M, Chaudhry M, Patel S, Burg A, Eaton L, Heyd L, Thorne T, Shturman L, Hoffmeister P, Story K, Zak V, Dowlings D, Traverse JH, Olson RE, Flanagan J, Sodano D, Murayama T, Kawamota A, Kusano KF, Wollins J, Welt FGP, Shah PB, Soukas PA, Asahara T, and Henry TD. Intramyocardial Transplantation of Autologous CD34+ Stem Cells for Intractable Angina: A Phase I/IIa Double-Blind Randomized Controlled Trial. Circulation 2007; 115: 3165-2.

7. Tahir SM, Price LL, Shah PB, and Welt FGP. Eighteen Year (1985-2002) Analysis of Incidence, Mortality, and Cardiac Procedure Outcomes of Acute Myocardial Infarction in Patients  $\geq$  65 Years of Age. *Am J Cardiol* 2008; 101:930-6.
8. Shah, PB. Clinician Update: Management of Coronary Chronic Total Occlusion. *Circulation* 2011;123:1780-1784.
9. Balaji NR and Shah PB. Circulation patient page: radial artery catheterization. *Circulation* 2011;127:e407-408.

### **Clinical Communications**

1. Hoffmeister PS, Shah PB, Chaudhry GM, Orlov MV, Shukla G, Calhoun WI, Patel J, Almasry I, and Haffajee CI. Elimination of malignant atrial and ventricular arrhythmias in patient with hypertrophic cardiomyopathy and ICD after alcohol septal ablation. *Heart Rhythm* 2005; 2(5) Supplement 1: S252.
2. Maron BA, Goldhaber SZ, Sturzu AC, Rhee DK, Ali BS, Shah PB, and Kirshenbaum JM. Catheter directed-thrombolysis for giant right atrial thrombus. *Circ Cardiovasc Imaging* 2010;3:126-127.

### **Non-peer reviewed scientific or medical publications/materials in print or other media**

- o Reviews, chapters, monographs and editorials
  - o
1. Shah PB, Popma JJ, Piana RN. Bivalirudin in percutaneous coronary interventions and acute coronary syndromes: new concepts, new directions. *Current Interventional Cardiology Reports* 1999;1: 346-358.
  2. Shah PB, Beckman JA. Acute Aortic Syndromes. In Irwin RS, Rippe JM, eds. *Irwin and Rippe's Textbook of Critical Care Medicine*. Baltimore: Lippincott; 2001: 339-349.
  3. Shah, PB, Lilly CM. Interventional therapy for coronary artery disease. *Am J Respir Crit Care Med* 2002;166(6): 791-796.
  4. Shah PB, Lotun K, Losordo DW. Cardiovascular Gene Therapy. In Templeton NS, ed. *Gene Therapy, Therapeutic Mechanisms and Strategies*, Second Edition. New York: Marcel Decker, 2004: 707-720.
  5. Shah PB, Losordo DW. Clinical Trials in Cardiovascular Disease. In Hung M-C, Huang L, Wagner E, eds. *Non-Viral Vectors for Gene Therapy*. London: Elsevier Academic Press, 2005: 339-356.
  6. Shah PB and Losordo DW; Angiogenesis. In Willerson JT, Cohn J, Holmes D, Wellens H., eds. *Cardiovascular Medicine*, 3<sup>rd</sup> Edition. London: Springer, 2007:1717-1740.
  7. Shah PB and Mauri L; Balloon Angioplasty: Plain, Perfusion, and Cutting. *Cath-SAP III*, American College of Cardiology, 2008:

8. Shah PB, Krichavsky M, Dorval J-F, and Resnic FS. Interventional Cardiology. In Libby P, ed. Essential Atlas of Cardiovascular Disease. Philadelphia: Springer 2009: 269-292.
9. Sparling JM, Shah PB, and Williams DO. Key Messages from the ACC/AHA/SCAI 2009 Focused Update for the Management of ST Elevation Myocardial Infarction. Cardiac Interventions Today 2010; 31-33.
10. Balaji NR, Shah PB, and Resnic FS. Radial Catheter Selection. Cardiac Interventions Today 2011; Vol 5, No. 2:47-51.
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