

**CURRICULUM VITAE  
OREGON HEALTH & SCIENCE UNIVERSITY**

**NAME**

Howard K. Song, M.D., Ph.D.

**DATE**

January 2008

**PRESENT POSITION AND ADDRESS**

**Academic  
Rank:**

Assistant Professor

**Department/Di  
vision:**

Department of Surgery  
Division of Cardiothoracic Surgery

**Professional  
Address:**

Division of Cardiothoracic Surgery  
Oregon Health & Science University  
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**II. EDUCATION**

**Undergraduate and Graduate:**

1985-89

B.S., Biology and Economics  
Honors in Biology  
*Phi Beta Kappa*  
*Magna cum laude*  
Yale University  
New Haven, Connecticut

1989-94 M.D.  
Stanford University School of Medicine  
Stanford, California

1997-2001 Ph.D. in Immunology  
University of Pennsylvania Biomedical Graduate Studies  
Philadelphia, Pennsylvania

**Postgraduate:**

1994-95 Intern in Surgery, Hospital of the University of Pennsylvania  
Philadelphia, Pennsylvania

1995-97 Junior Resident in Surgery, Hospital of the University of Pennsylvania  
Philadelphia, Pennsylvania

1997-99 Research Fellow, Harrison Department of Surgical Research  
University of Pennsylvania  
Philadelphia, Pennsylvania

1999-2000 Senior Resident in Surgery, Hospital of the University of Pennsylvania  
Philadelphia, Pennsylvania

2000-2001 Chief Resident in Surgery, Hospital of the University of Pennsylvania  
Philadelphia, Pennsylvania

2001-2003 Resident in Cardiothoracic Surgery, Emory University Affiliated Hospitals  
Atlanta, Georgia

2003-2004 Chief Resident in Cardiothoracic Surgery, Emory University Affiliated  
Hospitals  
Atlanta, Georgia

**Awards and Honors:**

Yale University

1988 *Phi Beta Kappa*

1989 *Magna cum laude*

1989 Honors in Biology

Stanford University School of Medicine

- 1992 Research Fellowship, American Diabetes Association
- 1994 Medical School Graduation Award for Achievement in Clinical Curriculum
- 1994 Medical School Graduation Award for Achievement in Basic Science Research

University of Pennsylvania School of Medicine

- 1997 Research Fellowship, Juvenile Diabetes Foundation
- 1998 William Y. Inouye Award for Excellence in Teaching
- 1999 Young Investigator Award, American Society of Transplant Surgeons
- 2000 Jonathan E. Rhoads Research Award

Oregon Health and Science University

- 2007 *Portland Monthly Best Doc's*

**Certification:**

American Board of Surgery, 2002-2013

American Board of Thoracic Surgery, , 2005-2015

Gore TAG Thoracic Endoprosthesis, 2006

DaVinci S Surgical System Console Surgeon Certified, 2007

United Network for Organ Sharing Certified Heart Transplant Surgeon, 2007

**Medical Licensure:**

Oregon, 1/1/06, Active

**III. PROFESSIONAL EXPERIENCE**

**Academic Appointments:**

- 1995-2000 Assistant Instructor in Surgery

|              |  |
|--------------|--|
| 2000-2001    | Instructor in Surgery  |
| 2004-present | Assistant Professor of Surgery   |
| 2004-present | Director, Investigational Research, Division of Cardiothoracic Surgery |
| 2005-present | Cardiothoracic Surgery Director, Thoracic Aorta Program at OHSU        |
| 2007-present | Surgery Director, Heart Failure and Transplant Program at OHSU         |

**Administrative Activities:**

|           |   |
|-----------|---|
| 2000-2001 | Moderated weekly Department of Surgery Morbidity and Mortality Conference, University of Pennsylvania |
| 2003-2004 | Moderated monthly Division of Cardiothoracic Surgery Grand Rounds Conference, Emory University        |

**IV. SCHOLARSHIP**

**Areas of Scholarly Interest:**

Outcomes of patients undergoing adult cardiac surgery

Genetically triggered thoracic aortic aneurysms

Recombinant factor replacement following cardiopulmonary bypass to decrease postoperative bleeding

Bioengineering of prosthetic materials and blood pumps to improve biocompatibility

**Study Protocols:**

Participating Surgeon, Veterans Administration Cooperative Study 517, "Outcomes Following Myocardial Revascularization: On and Off Cardiopulmonary Bypass"

Principal Investigator, OHSU IACUC Protocol B11032 "Inhibition of Neointimal Hyperplasia using Rapamycin and VEGF in a Novel in vivo Drug-infusing ePTFE Graft"

Principal Investigator, OHSU IRB Protocol 8578 EXP "Pre-operative Hemoglobin A1c and Post-operative Insulin Requirements in Cardiothoracic Surgery Patients"

Principle Investigator, OHSU IACUC Protocol #B11070, “LPS Preconditioning and Neuroprotection in Rats.”

### Grants and Contracts:

Principal Investigator, NIH/NICHD/ORWH Grant Number 5 K12 HD043488-04. “Scholars in Women’s Health Research Across the Lifespan,” 8/1/05-7/31/08. \$79,787 per year. 75% effort.

Principal Investigator, Oregon Health and Science University Medical Research Foundation Grant. “Local Rapamycin for the Inhibition of Neointimal Hyperplasia Following Bypass Surgery,” 3/1/06- 2/28/08. \$30,000. 10% effort.

Local Principal Investigator, NovoNordisk A/S, OHSU IRB #1496, “A multi-center, randomized, double-blind, placebo controlled, dose escalation trial on safety and pharmacokinetics of recombinant Factor XIII in patients following first time myocardial revascularization requiring cardiopulmonary bypass,” 6/2/05-present. \$13,832 per enrolled patient.

Co-Investigator, NIH/NHLBI-HV-05-09. Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions—Data Coordinating Center, 10/1/06-9/30/10. \$623,658. 15% effort

Principal Investigator, NIH/NHLBI Contract #HHSN268200548198C, OHSU IRB #2598, “Interagency Registry of Mechanically Assisted Circulatory Support.”

### Publications/Creative Work:

#### Peer-reviewed Journals:

Alters SE, **Song HK**, Fathman CG. Evidence that clonal anergy is induced in thymic emigrant cells after anti-CD4-mediated transplantation tolerance. *Transplantation* 1993; 56:633.

**Song HK**, Alters SE, Fathman CG. Evidence that anti-CD8 abrogates anti-CD4-mediated clonal anergy but allows allograft survival in mice. *Transplantation* 1993; 55:133.

**Song HK**, Kreisel D, Canter R, Krupnick AS, Stadtmauer EA, Buzby G. Changing presentation and management of neutropenic enterocolitis. *Archives of Surgery* 1998; 133:979.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Barker CF, Naji A. A novel method for the study of alloimmune responses. *Transplantation*

1998; 66:S3.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. Alloimmune responses against major and minor histocompatibility antigens: distinct division kinetics and requirement for CD28 costimulation. *Journal of Immunology*. 1999; 162:2467.

Noorchashm H, Lieu YK, **Song HK**, Rostami S, Greeley SS, Barker CF, Naji A. B lymphocytes influence the shape of the mature preimmune CD4<sup>+</sup> TCR repertoire. *Transplantation Proceedings*. 1999;31:832.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. In vivo MLR: a novel method for the study of alloimmune responses. *Transplantation Proceedings*. 1999; 31:834.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. Characterization of the alloimmune response to minor histocompatibility antigens by in vivo MLR. *Transplantation Proceedings*. 1999; 31:836

Noorchashm H, **Song HK**, Lieu YK, Rostami S, Greeley SS, Bazel S, Barker CF, Naji A. A direct method for the calculation of alloreactive CD4<sup>+</sup> T cell precursor frequency in vivo. *Transplantation*. 1999; 67:1281.

Noorchashm H, Lieu YK, Rostami S, Noorchashm N, Greeley SS, **Song HK**, Jevnikar AM, Barker CF, Naji A. I-Ag<sup>7</sup> mediated antigen presentation by B lymphocytes is critical in overcoming a checkpoint in T cell tolerance to islet b cells in Non-obese diabetic (NOD) mice. *Journal of Immunology*. 1999; 162:743.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. Tracking alloreactive cell division in vivo. *Transplantation*. 1999; 68:297.

Noorchashm H, Moore DJ, Lieu YK, Noorchashm N, Schlachterman A, **Song HK**, Lambris JD, Barker CF, Naji A. Contribution of the innate immune system to autoimmune diabetes: a role for the CR1/CR2 complement receptors. *Cellular Immunology*. 1999; 195:75.

Trani JL, **Song HK**, Lerner SM, Noorchashm H, Markmann J, Wang J, Barker CF, Naji A, Markmann JF. In vivo characterization of cellular xenoreactivity. *Transplantation*. 1999; 67:S554.

**Song HK**, Noorchashm H, Lin TH, Rostami S, Greeley SS, Barker CF, Naji A. CD28 costimulation in alloimmune responses against major and minor histocompatibility antigens. *Transplantation*.

1999; 67:S598.

Kreisel D, de Silva N, Krupnick AS, **Song HK**, Rosato EF, Williams NN. Early radiological imaging may improve outcome of appendicitis in the elderly. *Gastroenterology*. 1999; 116:S0141.

Krupnick AS, Williams NN, Kreisel D, **Song HK**, DiMeo AC, Rosato EF. Minimally invasive vertical banded gastroplasty: Early results. *Gastroenterology*. 1999; 116:S0143.

**Song HK**, Canter RJ, Kreisel D, Krupnick AS, Rosato EF, Williams NN. Distinct presentation and management of functioning and non-functioning islet cell tumors. *Gastroenterology*. 1999; 116:S0264.

Williams NN, Krupnick AS, Kreisel D, **Song HK**, DiMeo AC, Rosato EF. Postoperative course after bariatric surgery. *Gastroenterology*. 1999; 116:S0320.

**Song HK**, Lin TH, Noorchashm H, Greeley SS, Moore DJ, Caton AJ, Barker CF, Naji A. Specialized CC-chemokine secretion by heart-specific CD4<sup>+</sup> T cells contributes to their pathogenic potential in a novel model of autoimmune myocarditis. *Circulation*. 1999; 100S:I-614.

Noorchashm H, Moore DJ, Noto LE, Noorchashm N, Reed AJ, Reed AL, **Song HK**, Mozaffari R, Jevnikar AM, Barker CF, Naji A. Impaired CD4 T cell activation due to reliance upon B cell-mediated costimulation in nonobese diabetic (NOD) mice. *Journal of Immunology*. 2000; 165(8):4685.

Bleier JI, Krupnick AS, Kreisel D, **Song HK**, Rosato EF, Williams NN. Hand-assisted laparoscopic vertical banded gastroplasty: early results. *Surgical Endoscopy*. 2000; 14:902.

**Song HK**, Buzby GP. Nutritional support for Crohn's disease. *Surgical Clinics of North America*. 2001; 81:103.

Trani JL, **Song HK**, Lerner SM, Markmann JW, Barker CF, Naji A, Markmann JF. Comparison of activation requirements and activation phenotype of allogeneic and xenogeneic rodent responses in vivo and in vitro. *Transplantation*. 2001; 72:485.

Greeley SA, Moore DJ, Noorchashm H, Noto LE, Rostami SY, Schlachterman A, **Song HK**, Koeberlein B, Barker CF, Naji A. Impaired activation of islet-reactive CD4 T cells in pancreatic lymph nodes of B cell-deficient nonobese diabetic mice. *Journal of Immunology*. 2001; 167:4351.

**Song HK**, Guy TS, Kaiser LR, Shrager JB. Current presentation and optimal surgical management of sternoclavicular joint infections. *Annals of Thoracic Surgery*. 73(2):427-31, 2002 Feb.

**Song HK**, Miller JI. Primary myxofibrosarcoma of the esophagus. *Journal of Thoracic & Cardiovascular Surgery*. 124(1):196-7, 2002 Jul.

**Song HK**, Leibold TM, Gal AA, Miller JI Jr. Extraskelatal osteosarcoma of the diaphragm presenting as a chest mass. *Annals of Thoracic Surgery*. 74(2):565-7, 2002 Aug.

**Song HK**, Petersen R, Sharoni E, Guyton RA, Puskas JD. Safe evolution towards routine off-pump coronary artery bypass: negotiating the learning curve. *European Journal of Cardio-Thoracic Surgery*. 24(6):947-52, 2003 Dec.

**Song HK**, Lin TH, Noorchashm H, Moore DJ, Greeley SA, Caton AJ, Naji A. Specialized CC-chemokine secretion by Th1 cells in destructive autoimmune myocarditis. *Journal of Autoimmunity*. 21(4):295-303, 2003 Dec.

**Song HK**, Sharoni E, Williams B, Guyton RA, Puskas, JD. Long-term Left Internal Mammary Artery Graft Patency for Coronary Artery Disease Associated with Pseudoxanthoma Elasticum. *Annals of Thoracic Surgery*. 78: 691 - 693, 2004 Aug.

Halkos ME, MD, Levy JH, Chen E, MD, Reddy VS, MD, Lattouf OM, Guyton RA, **Song HK**. Early Experience With Activated Recombinant Factor VII for Intractable Hemorrhage Following Cardiovascular Surgery. *Annals of Thoracic Surgery*. 79: 1303-1306, 2005 Apr.

Komanapalli CB, Burch G, Tripathy U, Slater MS, **Song HK**. Percutaneous repair of an ascending aortic pseudoaneurysm using a septal occluder device. *Journal of Thoracic and Cardiovascular Surgery*. 130; 603-604, 2005 Aug.

Sharoni E, **Song HK**, Peterson RJ, Guyton RA, Puskas JD. Off pump coronary artery bypass surgery for significant left ventricular dysfunction: safety, feasibility, and trends in methodology over time--an early experience. *Heart*. 2006 Apr;92(4):499-502. Epub 2005 Jul 1.

Komanapalli CB, Sera V, Slater MS, Tripathy U, Brady G, Hegnell L, Ravichandran PS, Hershberger RE, **Song HK**. Becker's muscular dystrophy and orthotopic heart transplantation: perioperative considerations. *Heart Surg Forum*. 2006;9(2):E604-6.

Halkos ME, Thourani VH, Lattouf OM, Kilgo P, Kerendi F, **Song**

**HK**, Guyton RA, Puskas JD. Preoperative Hemoglobin A1c level is more predictive than diagnosis of diabetes mellitus for adverse events following coronary artery bypass surgery. Submitted.

Komanapalli CB, **Song HK**, Slater MS. Multiple Redo Aortic Valve Replacement following Orthotopic Heart Transplantation. Submitted.

Komanapalli CB, **Song HK**, Marijianowski MM, Chronos NA, Nakada M, Jordan R, Jakubowski JA, Hanson SR. Abciximab reduces neointima formation after vascular injury in a non-human primate model. Submitted.

Kaufman JA, **Song HK**, Mullins RJ, Slater MS. Percutaneous endograft repair of traumatic aortic transection in small diameter aortas. Submitted.

Komanapalli CB, **Song HK**, Marijianowski MM, Chronos NAF, Nakada M, Jordan R, Jakubowski JA, Hanson SR. Abciximab reduces neointima formation after vascular injury in a non-human primate model. Submitted.

**Song HK**, Grab JD, O'Brien SM, Wellke KF, Edwards F, Ungerleider RM. Gender differences in mortality after mitral valve surgery: evidence for higher mortality in perimenopausal women. Submitted.

Hagg DS, Oveson KE, Strauss W, Ahmann AJ, **Song HK**, Slater MS, Smith SM. Morning glucose does not correlate with daily mean glucose in cardiac surgical ICU patients. Submitted.

Book Chapters:

**Song HK**, Gardner TJ. Cardiovascular Pathophysiology and Treatment. In Kreisel D, et al(eds.): *The Surgical Review: an Integrated Basic and Clinical Science Study Guide*. Philadelphia, Lippincott-Raven Press, 2001, 314-332.

**Song HK**, Puskas JD. Off-pump Coronary Artery Bypass Grafting. In Kaiser L, et al(eds.): *Mastery of Cardiothoracic Surgery*. Philadelphia, Lippincott Williams & Wilkins, 2006.

**Song HK**, Slater MS. Postoperative Management of Adult Cardiovascular Surgery Patients In Civetta JM, et al (eds.): *Critical Care, 4<sup>th</sup> edition*. Philadelphia, Lippincott Williams & Wilkins, In press.

Slater, MS, Komanapalli C, **Song HK**. Myocardial Protection *In* Gravlee GP, et al (eds.): *Cardiopulmonary Bypass: Principles and Practice 3<sup>rd</sup> edition*. Philadelphia, Lippincott Williams & Wilkins, In press.

Electronic Publications:

**Song HK**, Puskas JD. Recent Advances in Surgery for Atrial Fibrillation, in <http://www.ctsnet.org/sections/innovation/arrhythmia/article-.html>, 2004.

**Song HK**, Chaugle H, Slater MS, Kaufman J. Endovascular Repair of a Descending Thoracic Aortic Pseudoaneurysm Using a Tapered Endoprosthesis, in <http://www.ctsnet.org/sections/clinicalresources/clinicalcases/article-17.html>, 2006.

**Song HK**, Slater MS, Kaufman JA. Technique for percutaneous transfemoral stent graft repair of traumatic aortic transection. [http://www.ctsnet.org/sections/clinicalresources/adultcardiac/expert\\_tech-24.html](http://www.ctsnet.org/sections/clinicalresources/adultcardiac/expert_tech-24.html), 2007.

Abstracts/Posters:

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. In vivo MLR: A Novel Method for the Study of the Alloimmune Response, *The Transplantation Society World Congress*, 1998.

**Song HK**, Noorchashm H, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. Characterization of the Alloimmune Response to Minor Histocompatibility Antigens by in vivo MLR, *The Transplantation Society World Congress*, 1998.

Noorchashm H, **Song HK**, Lieu YK, Rostami S, Greeley SS, Barker CF, Naji A. B Lymphocytes Influence the Shape of the Mature Preimmune CD4+ TCR Repertoire, *The Transplantation Society World Congress*, 1998.

Greeley SS, Noorchashm H, **Song HK**, Barker CF, Naji A. The role of maternal Ig in diabetes pathogenesis. *Keystone Conference on Immunogenetics of Human Disease: MHC/TCR and Peptide*, 1999.

Canter RJ, **Song HK**, Kreisel D, Krupnick AS, Rosato EF, Williams NN. Recent experience with sporadic insulinoma, *Americas Hepato-Pancreato-Biliary Congress*, 1999.

**Song HK**, Guy TS, Friedberg J, Kaiser LR, Shrager J. Current presentation and surgical management of sternoclavicular joint infections, *Chest*, 2000.

Komanapalli CB, Brady G, Pickens L, Dixon T, Chaugle H, Slater MS, **Song HK**. Tailoring the intensity of insulin therapy to match individual patient insulin resistance improves postoperative glycemic control, *STS Annual Meeting*, 2006.

Komanapalli CB, Slater MS, Dixon T, Pickens L, Drynan K, Ahmann A, **Song HK**, Optimizing glucose control in cardiovascular surgery patients, *Portland Surgical Society*, 2006.

Komanapalli CB, Slater MS, Dixon T, Pickens L, Drynan K, Ungerleider RM, **Song HK**. Determinants of insulin utilization in cardiovascular surgery patients, *World Society of Cardio-Thoracic Surgeons 16<sup>th</sup> World Congress*, August 2006.

Halkos ME, Thourani VH, Lattouf OM, Kilgo P, Kerendi F, **Song HK**, Guyton RA, Puskas JD, Preoperative Hemoglobin A1c level is more predictive than diagnosis of diabetes mellitus for adverse events following coronary artery bypass surgery, *American Association of Thoracic Surgery 87<sup>th</sup> Annual Meeting*, June 2007.

Alexander, NE, Haranath SP, Maziarz RT, **Song HK**, The nearly lethal kiss: a case of pericardial tamponade resulting from erosion of a coronary artery by a plasmacytoma, *Chest* 2007, October 2007.

Scholl S, Hutchens M, **Song HK**, Successful management of helium gas embolism following intra-aortic balloon pump rupture, *The Society for Critical Care Medicine 37<sup>th</sup> Critical Care Conference*, February 2008.

### **Invited Lectures, Conference Presentations or Professorships:**

International and National: A novel method for the study of alloimmune responses, *American Society of Transplant Surgeons*, 1998.

Kinetics of the alloimmune response to minor histocompatibility antigens, *American Society of Transplant Surgeons*, 1998.

Distinct costimulatory requirements for alloimmune responses against major and minor histocompatibility antigens, *American Society of Transplant Surgeons*, 1999.

Specialized CC-chemokine secretion by heart-specific CD4<sup>+</sup> T cells contributes to their pathogenic potential in a novel model of autoimmune myocarditis, *American Heart Association 72<sup>nd</sup> Scientific Sessions*, 1999.

*In vivo* clonotypic CD4<sup>+</sup> T cell responses against a single transgenic minor histocompatibility antigen, *World Transplant Congress*, 2000.

Pre-operative risk stratification for significant atherosclerosis of the ascending aorta, *International Society of Minimally Invasive Cardiac Surgery*, 2003.

Septal myectomy for the surgical treatment of hypertrophic obstructive cardiomyopathy, *Southern Thoracic Surgical Association 54<sup>th</sup> Annual Meeting*, 2007.

Gender differences in mortality after mitral valve surgery: evidence for higher mortality in perimenopausal women, *Southern Thoracic Surgical Association 54<sup>th</sup> Annual Meeting*, 2007.

Regional and Local:

Indications for mitral valve repair: are we waiting too long? *Salishan Cardiology Conference*, September 2005.

Historical perspective on evolving indications for coronary artery bypass surgery, *Salishan Cardiology Conference*, September 2005.

Novel approaches to coronary artery bypass surgery: arterial grafting, epiaortic ultrasound, off-pump coronary artery bypass, and transmyocardial revascularization, *OHSU Cardiac Surgery Symposium*, October 2005.

Thoracic aortic aneurysms and dissections, *OHSU Cardiac Surgery Symposium*, October 2005.

Management of coronary artery disease: is there still a role for surgery? *Salishan Cardiology Conference*, September 2006.

Prevention of neointimal hyperplasia following arterial bypass surgery, *OHSU Women's Health Science Forum*, May 2006.

What's new in adult cardiac surgery?, *OHSU Department of Surgery Grand Rounds*, April 2007.

Aortic Surgery, *OHSU Division of Cardiology Clinical Conference Series*, June 2007.

Update on the heart failure and transplant program at OHSU, *Rogue Valley Medical Center Cardiology Conference*, August, 2007.

Women are from Venus: how gender influences outcomes following cardiovascular surgery, *OHSU Cardiac Surgery Symposium*, October 2007.

Update on valve-sparing aortic root replacement, *OHSU Division of*

*Cardiothoracic Conference*, December 2007.

Invited Discussant: Southern Thoracic Surgical Association, November 2006, “The impact of lateral wall myocardial infarction on outcomes following surgical ventricular restoration.”

## V. SERVICE

### **Membership in Professional Societies:**

*Phi Beta Kappa*, 1988-present

World Transplantation Society, 1998-present

CTSnet, 2001-present

Oregon Medical Association, 2004-present

Southern Thoracic Surgical Association, 2006-present

Society of Thoracic Surgeons, 2006-present

International Society of Heart and Lung Transplantation, 2006-present

American College of Cardiology, 2007-present

Western Thoracic Surgical Association, 2007-present

### **Editorial and Ad Hoc Review Activities:**

Reviewer, *Annals of Thoracic Surgery*, 2003-present.

Reviewer, *World Journal of Surgery*, 2005-present.

Reviewer, *Journal of Endovascular Therapy*, 2006-present.

### **Committees:**

International/National: Steering Committee Member, National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions, 2006-present.

Cardiac Surgery Advisory Board, Novo Nordisk, 2007-present.

Regional:

Medical Advisory Committee Member, Pacific Northwest Transplant Bank, 2007-present.

Voting Member, United Network of Organ Sharing Region 6, 2007-present.

Institutional:

CABG Pathway Steering Committee Member, 2004-present.

Cardiothoracic Surgery Best Practice Group, 2005-present.

Cardiac Operating Room Design Committee, 2005.

ICU Best Practice group, 2007-present.

Departmental:

Department of Surgery Research Committee Member, 2006-present.

Adult Cardiac EPIC Physician champion, 2007-2008.

**Community Service:**

CTSnet Endoluminal Technologies Mentor, 2006-present.

Successful application to Centers for Medicare and Medicaid Services for recertification of Oregon Health and Science University Hospital as a Ventricular Assist Device Center of Excellence, 2007.

Successfully petitioned Oregon Health Plan Outcomes Subcommittee to enhance Oregon Medicaid coverage of ventricular assist device implantation for patients with endstage congestive heart failure, 2007.

Developed Activated Factor VIIa administration guidelines for OHSU pharmacy with other clinicians.

**Clinical Responsibilities:**

Attending Cardiothoracic Surgeon at OHSU Hospital and Portland Veterans Administration Medical Center.

Responsible for the preoperative, operative, and postoperative assessment and care of adult patients with a broad range of cardiovascular disorders including: ischemic heart disease, valvular heart disease, cardiomyopathy, congestive heart failure, thoracic aortic aneurysms, and thoracic trauma. Special clinical interests in aortic and mitral valve repair, surgery for congestive heart failure, transplantation, and ventricular assist devices.

Cardiothoracic Surgery Director of the Thoracic Aorta Program at OHSU.

Responsible for coordinating multidisciplinary care of patients with thoracic aortic conditions, including aortic dissection and aortic root, ascending, descending, and thoracoabdominal aneurysms. Assess and incorporate emerging techniques and technologies, including aortic valve sparing techniques and thoracic aortic endografts into the care of these patients. Participate in studies on the pathophysiology and treatment of thoracic aortic disorders.

Surgery Director of the Heart Failure and Transplantation Program at OHSU.

Responsible for the preoperative, operative, and postoperative surgical care of patients with endstage congestive heart failure. Work closely with the multidisciplinary heart failure team in the assessment and selection of patients considered for heart transplantation. Assess and incorporate emerging techniques and technologies, including ventricular restoration and axial flow ventricular assist devices into the care of these patients. Participate in studies on emerging technologies such as 2<sup>nd</sup> and 3<sup>rd</sup> generation ventricular assist devices.

## **VI. TEACHING**

See OHSU Teaching Portfolio.