

DR. RONNIE G SMALLING, M.D., FACC, FSCAI

PERSONAL INFORMATION:

Business Name: SMALLING VASCULAR INSTITUTE, LLC
Business Phone: (913) 912-3624
Business Fax: (913) 717-6362
Business Address: 11025 Metcalf Avenue, Overland Park Kansas 66210
Email: info@inveinmd.com
Cell Phone: (417) 830-3731
Date of Birth: February 1, 1959
Place of Birth: Prineville, Oregon
Citizenship: United States of America
Gender: Male

LICENSURE:

Kansas Medical License 2008, #04-33046
Arkansas Medical License 1996, #E-1033
Missouri Medical License 1993, #MD 102873
Oregon Medical License 1992, #17658 (Inactive)
California Medical License 1988, #A045524 (Inactive)
Oklahoma Medical License 1986, #16141

BOARD CERTIFICATION:

Diplomate American Board of Internal Medicine
September 13, 1989; currently Certified

Diplomate National Board of Physicians and Surgeons Board Certified
Diplomate of Internal Medicine,
August 2019 – August 2021

BOARD CERTIFICATION: (continued)

Diplomate	American Board of Internal Medicine Subspecialty Board of Cardiovascular Diseases November 1991; Recertified 2002
Diplomate	National Board of Physicians and Surgeons Board Certified Diplomate of Cardiovascular Diseases <i>August 2019 to August 2021</i>
Diplomate	American Board of Internal Medicine Subspecialty Board Certification: Added Qualifications in Interventional Cardiology May 2001
Diplomate	National Board of Physicians and Surgeons Board Certified Diplomate of Interventional Cardiology <i>August 2019 to August 2021</i>

EDUCATION:

Degree:	Medical Doctor, 1986 University of Oklahoma, College of Medicine Oklahoma City, OK
Degree:	Bachelor of Science in Biomedical Chemistry, 1981 Oral Roberts University Tulsa, OK
Diploma:	Broken Bow Senior High School, 1977 Broken Bow, OK

MEDICAL TRAINING:

July 1, 1992 – June 30, 1993
Interventional Cardiology Fellowship
Heart Institute at St. Vincent Hospital, Portland, OR

MEDICAL TRAINING: (continued)

July 1, 1989 – June 30, 1992

Cardiovascular Fellowship

Clinical Instructor in Medicine

University of Southern California Medical Center, Los Angeles, CA

July 1987 – June 1989 Resident, Internal Medicine

University of Oklahoma Affiliated Hospitals, Oklahoma City, OK

July 1986 – June 1987

Intern, Internal Medicine

University of Oklahoma Affiliated Hospitals, Oklahoma City, OK

HONORS:

“435 Magazine” June 2018

“Her Life” October 2017, Magazine

Appointed Sanctioned Medtronic Venaseal™. Preceptor Site 2017 – Present

Top Docs of 2003, Selected by peers as one of the best physicians in Cardiovascular Disease,
417 Magazine

Chief Administrative Fellow, Division of Cardiology, Los Angeles County and University of
Southern California Medical Center, 1991-1992

MEMBERSHIPS:

American College of Cardiology

American Board of Venous & Lymphatic Medicine

New Cardiovascular Horizons, faculty

Vein Experts

American Medical Association

Kansas State Medical Association

Fellowship of the Society for Cardiovascular Angiography and Interventions (**SCAI**)
Member since 2005

Missouri Chapter of the American College of Cardiology – **District 4 Councilor** April
2002 to October 2002

POSITIONS:

Nov '15 – Present

IN VEIN – Smalling Vascular Institute, LLC

Founder/Owner

Diagnostic Treatment – Superficial Interventional Vascular Disease

- Peripheral Varicose Veins; CVI Disease Diagnostics/Management/Treatment. Assessment of PAD, Iliac Venous Compression diagnostics, Deep Vein Reflux. Full peripheral vascular assessment

Interventional Treatment – Superficial Venous Disease

- A Medtronic Sanctioned National Preceptor Site for Venaseal™
- Endovenous Ultrasound Guided Thermal Ablation
- Chronic Venous Insufficiency; Varicose Veins
- Sclerotherapy and Laser spider/reticular vein
- Lymphedema, Lipedema, Lipodermatosclerosis
- Varithena Treatment
- 1st KC Metro area sanctioned Venaseal™ Physician

May 15 – Present

Medical Director, Smart Injector, LLC

Denver, CO

Sep' 14 – Nov' 15

Coronary & Peripheral Vascular Interventional Cardiologist

Via Christi Heart & Pulmonary Clinic

2711 South Rouse Road, Suite C/D, Pittsburg, KS 66762

recruited to build a peripheral vascular program

Coronary **128**

Angiograms 60

Interventions 68

Peripheral **318**

Angiograms 108

Interventions 210

2007 – 2004

Coronary & Peripheral Vascular Interventional Cardiologist

Mercy Joplin Heartcare

3020 St. Johns Blvd, Suite A, Joplin, Missouri 64804

recruited to build a peripheral vascular program

Coronary

Angiograms 20/mo

Interventions 10/mo

Peripheral

Angiograms 12/mo

Interventions 7/mo

POSITIONS: (continued)

2002 – 2004 **Medical Director**
Hammons Heart Institute, Springfield, Missouri

1993 – 2007 **Coronary and Interventional Cardiologist**
St. John’s Regional Health Center, Springfield, MO

CAREER CARDIAC & PERIPHERAL VASCULAR EXPERIENCE 1993-2019:

SMALLING VASCULAR INSTITUTE	VENASEAL PROCEDURE	THERMAL/CHEMICAL ABLATIONS	VARITHENA	PHLEBECTOMY	TOTAL PROCEDURES
3/2016 – 5/2019	559	2724	138	5	3426
HOSPITAL	DIAGNOSTIC CATHS	CARDIAC INTERVENTIONS	PERIPHERAL CATHS	PERIPHERAL INTERVENTIONS	TOTAL PROCEDURES
Total CAD & PAD PROCEDURES 1993 – 2015	7260	5918	920	986	15084
8/2000 –11/2007	700	350	120	215	498
ST JOHN’S / MERCY SPRINGFIELD, MO 1993-2007	6500	5500	PRE-PROTOCOL	PRE-PROTOCOL	13075

Details:

- **CARDIAC INTERVENTION** – Balloon, stent, or atherectomy (using laser or cutting devices) to coronary arteries
- **PERIPHERAL INTERVENTIONS** – Balloon, stent, atherectomy (using laser or cutting devices) to legs, arms, and/or kidneys

COMMITTEES:

St. John's Clinic Cardiovascular Research Committee July 2003 to 2007

St. John's Physicians and Clinics, Women's Health Services Committee, January 2002 to 2007

St. John's Physicians and Clinics, P&T Committee, 1998 to 2007

St. John's Cardiovascular Service Line Executive Committee, July 1, 2000 to 2004

St. John's Clinic Umbrella Committee for Women's Health 2004

St. John's Vascular Center of Excellence Project Physician Co-Chair for the Education / Marketing Subcommittee, 2003

St. John's Physicians and Clinics, Compensation Committee, 2000

Boston Scientific Corporation, Rotational Atherectomy Division Physician Advisory Panel Member, 2000

St. John's Physicians and Clinics Restructuring Oversight Committee Operations and Management – Physician Co-Chair March – July 1999

AREAS OF CLINICAL EXPERTISE AND PRACTICE**I. Coronary Interventions**

- Diagnostic Cardiac Catheterization
- Balloon Angioplasty
- Coronary Stenting
 - Native Bypass Graft
 - Bypass Graft

II. Percutaneous Peripheral Interventions

- Diagnostic
- Interventional
 - PTA, Peripheral and Renal Stents, Plaque Excision, Excimer Laser

III. Superficial Venous Disease Diagnosis and Treatment

- Diagnose Vascular Disease: non-diagnostic testing of arterial and venous of the lower extremities
- Comprehensive treatment of CVI and wound healing therapies
- Endovenous ablation therapy for superficial venous disease using Ultrasound Guided treatment for abnormal and or diseased superficial venous disease
 - Sclerotherapy / Laser Aesthetics for Superficial spider/reticular

IV. Consultation

- Wound Clinic Collaboration
- Arterial, Coronary, and Interventional Vascular Disease

CURRENT CLINICAL PRACTICE

Chronic Superficial Venous Disease (CVI) diagnosis and treatment is my primary and sole current clinical scope of practice. Diagnosing Peripheral Vascular disease, including PAD and PVD is a focus with emphasis in treating Chronic Venous Insufficiency. Our practice is the first sanctioned national private practice Medtronic preceptorship and was the first treatment center in the KC area to treat CVI with Medtronic's non-thermal, non-tumescent, Adhesive Ablation Treatments (NTNT) with Medtronic's Venaseal™. Additionally, we use two thermal ablation modalities: Radiofrequency (RFA) and Endovascular Laser Therapy (EVLT) in treating symptomatic Venous Disease from Dysfunctional Venous Valvular disease. We utilize Boston Scientific's Varithena™, a commercially developed sclerotherapy to treat CVI chemically. We believe collaborative medicine is essential. We collaborate with Podiatrists, Endocrinologists, Lymphedema Therapists, Orthopedists, Cardiologists, Wound Management Physicians and other disciplines.

HISTORICAL CLINICAL PRACTICE

Interventional cardiology was the primary focus of my 23-year clinical practice, performing 300 to 400 coronary interventions, and 300 to 400 diagnostic coronary angiograms annually.

The first 23 years of my clinical cardiovascular career was focused on a traditional hospital-based practice where the majority of procedures were radiologically guided. In addition to a highly successful career in the interventional cardiac arterial disease treatment and peripheral arterial disease diagnosis and treatment, I have participated in numerous research trials and cardiovascular device development. I was in private clinical practice in large and medium sized interventional cardiology groups. Some of the medical device developments resulted in cardiovascular disease peer-viewed journals with many devices being marketed commercially and became very successful products still in use today in the clinical Endovascular treatment of patients around the world.

In the area of peripheral interventions, I performed percutaneous transluminal angioplasty, peripheral and renal stenting, plaque excision, as well as Excimer laser procedures.

Research and development in emerging technologies as related to vascular access management, peripheral and coronary interventions.

Further details and discussions regarding my scope of interventional practice are available upon request.

PRESENTATIONS:

1. **Smalling RG.** “A Cardiologist Perspective on Venous Disease” New Cardiovascular Horizons (NCVH) 2019 June, New Orleans, LA
2. **Smalling RG.** “A Cardiologist Perspective on Venous Disease” New Cardiovascular Horizons (NCVH) 2018 June, New Orleans, LA
3. **Smalling RG.** “Building Your Practice and Working with other Disciplines” Cardiovascular Update & Venous Forum – New Cardiovascular Horizons (NCVH) 2017 June, New Orleans, LA
4. **Smalling RG.** “Gone Are the Days of the Five-Year Wound” Venous Forum – New Cardiovascular Horizons (NCVH) 2016 June, New Orleans, LA
5. **Smalling RG.** “Current Indications for Renal Artery Stenting: Are There Any and Will They Make a Difference?” New Cardiovascular Horizons (NCVH) 2015 June, New Orleans, LA
6. **Smalling RG.** “Current Indications for Renal Artery Stenting: Are There Any and Will They Make a Difference?” New Cardiovascular Horizons (NCVH) 2014 May, New Orleans, LA
7. **Smalling RG.** “A Review of Thienopyridine Antiplatelet Agents” Cardiovascular Update for Primary Care Provider – Session I. New Cardiovascular Horizons (NCVH) 2012 Jun, New Orleans, LA
8. **Smalling RG.** “Strategies for Managing CV Patients in a Natural Disaster” Cardiovascular Update for Primary Care Provider – Session II. New Cardiovascular Horizons (NCVH) 2012 Jun, New Orleans, LA
9. **Smalling RG.** “Evaluation and Therapy of Acute Chest Pain” Cardiovascular Update for Primary Care Provider – Session II. New Cardiovascular Horizons (NCVH) 2012 Jun, New Orleans, LA
10. **Smalling RG.** “Evaluation and Therapy of Acute Chest Pain” New Cardiovascular Horizons (NCVH) 2011 Jun, New Orleans, LA
11. **Smalling RG.** “Evaluation and Therapy of Acute Chest Pain” New Cardiovascular Horizons (NCVH) 2010 Jun, New Orleans, LA
12. **Smalling RG.** “Coronary Calcium Scoring – Who Should Have It?” New Cardiovascular Horizons (NCVH) 2010 Jun, New Orleans, LA
13. **Smalling RG.** “Emerging Technologies Vascular Closure” New Cardiovascular Horizons (NCVH) 2009 Jul, New Orleans, LA
14. **Smalling RG.** “Avoiding Vascular Access Complications: How to ‘BEST’ Remove Access Catastrophes from your Cath Lab” New Cardiovascular Horizons (NCVH) 2008 Sep, New Orleans, LA

PRESENTATIONS: (continued)

15. **Smalling RG.** “Vascular Access Management: Strategies to Preserve the ‘Precious CFA Real Estate’” New Cardiovascular Horizons (NCVH) 2007 September, New Orleans, LA.
16. **Smalling RG.** “Results of the Boomerang II Trial: A multicenter, controlled, randomized comparison of Boomerang Access Management System to manual compression showing significantly accelerate time to ambulation and discharge without active fixation.” EuroPCR Conference, 2007 May, Barcelona, Spain.
17. **Smalling RG.** “New Techniques in the Treatment of Peripheral Interventions in the Endovascular Suite.” St. Louis, Missouri Regional Interventional Cardiology Conference. 2007 April. St. Louis, MO.
18. **Smalling RG.** “Preliminary Data Results from Boomerang II Trial.” International Congress XX (ISES) 2007 February. Scottsdale, AZ.
19. **Smalling RG.** Allie DE, Goswami N. “Contemporary Solution to Access Management New Platform – New Paradigm.” International Symposium of Endovascular Therapy (ISET), 2007 January; Hollywood, FL.
20. Weinstock BS, **Smalling RG.** Allie DE. “Targeted Renal Therapy (TRT) in the Prevention and Treatment of Contrast-Induced Nephropathy (CIN) and Renal Insufficiency.” New Cardiovascular Horizons (NCVH) 2006 November, New Orleans, LA.
21. **Smalling RG.** “Accelerated vascular access management using the new novel Boomerang percutaneous femoral access management system without active mechanical arterial site fixation: Initial Experience.” International Symposium of Endovascular Therapy (ISET), 2006 January; Miami Beach, FL.
22. **Smalling RG.** St John’s Annual Women’s Program, Chateau on the Lake, Branson, Missouri. November 2002 and 2003.
23. **Smalling RG.** “Congestive Heart Failure: Understanding the Continuum of Care for Optimal Management.” Presented at St. John’s Regional Health Center, *Disease Management Winter Symposium*. Springfield, MO. January 2003.
24. **Smalling RG.** “New NCEP-ATP3 Guidelines.” Presented at St. John’s Regional Health Center, *Grand Rounds*. Springfield, MO, October 2001.
25. Meurer MF, **Smalling RG.** Tjoa HI. “What’s New: Interventional Therapies?” *Thirteenth Cardiopulmonary Nursing Symposium*. Springfield, MO, April 13, 2001.

PRESENTATIONS: (continued)

26. Marwah O, Posley K, Tak T, **Smalling RG**, Youssef M, Kawanishi DT, Chandraratna PAN. "Detection of Impaired Coronary Flow Reserve in Patients with Angiographically Successful Angioplasty of the Left Anterior Descending Artery by Transesophageal Echocardiography." *Annual Meeting of the American Heart Association* (AHA), New Orleans, LA, November 16-19, 1992.
27. **Smalling RG**. Albornoz M, Tak T, Agarwal C, Tubau JF, Chandraratna PAN. "Role of Transesophageal Echocardiography in Evaluating Pericardial Disease." Submitted for presentation. *Annual Meeting of American Heart Association* (AHA). New Orleans, LA, November 16-19, 1992.
28. Kawanishi DT, Stellar W, **Smalling RG**. Marchand AE, Morrison E, Rahimtoola SH. "Sustained Long-Term Benefits of Catheter Balloon Commissurotomy for Mitral Stenosis: Response to Exercise." *XIV Annual InterAmerican Congress of Cardiology* (IACC) Scientific Sessions. Orlando, FL, May 23-27, 1992.
29. **Smalling RG**. Kawanishi DT, Stellar W, Morrison E, Rahimtoola SH. "Small Stature Increases Risk of Fatal Complications During Double-Balloon Commissurotomy for Mitral Stenosis." *XIV Annual InterAmerican Congress of Cardiology* (IACC) Scientific Sessions. Orlando, FL, May 23-27, 1992.
30. Kawanishi DT, Stellar W, **Smalling RG**. Marchand AE, Morrison E, Rahimtoola SH. "Sustained Long-Term Benefits of Catheter Balloon Commissurotomy for Mitral Stenosis: Response to Exercise." *Western Regional Meeting, American Federation for Clinical Research*. Carmel, CA, February 1992.
31. **Smalling RG**. Voyles WF, Thadani U, Teague SM. "Effects of Beta Blockade, Beta Stimulation, and Afterload on Doppler Ejection Dynamics." *Annual Meeting of the Oklahoma Association of House Staff Physicians*. May 19, 1989.
32. **Smalling RG**. Voyles WF, Teague SM, Anderson JL, Thadani U. "Mitral Annular Calcification: An Age Stratified Case-Control Study." *Annual Meeting of the American College of Physicians, Oklahoma Chapter*. October 20-22, 1988.
33. **Smalling RG**. Voyles WF, Teague SM. "A Comparison of Left Ventricular Systolic Ejection Indices During Alterations of Contractility and Loading Conditions." *Annual Meeting of the Oklahoma Association of House Staff Physicians*. May 25, 1987.
34. **Smalling RG**. Anderson JL, Voyles WF, Teague SM, Thadani U. "Mitral Annular Calcification: Prevalence and Associated Clinical Features." *Annual Meeting of American College of Physicians, Oklahoma Chapter*. October 23-25, 1986.

PANELS:

Venous Disease Session: Insights on Venous Disease Session 2. Panelist: **R Smalling, MD**. New Cardiovascular Horizons (NCVH) 2019 June, New Orleans, La.

Venous Disease Session: Insights on Venous Disease Session 2. Panelist: **R Smalling, MD**. New Cardiovascular Horizons (NCVH) 2018 June, New Orleans, La.

Venous Disease Session: Making the Diagnosis of DVT. Panelist: **R Smalling, MD**. New Cardiovascular Horizons (NCVH) 2010 June, New Orleans, LA.

Cardiovascular General Session: The SFA and Popliteal Intervention. Chair: K Misumi, MD
Panel: R Foster, MD; T Davis, MD; **R Smalling, MD**; A Ebner, MD. New Cardiovascular Horizons (NCVH) 2009 July, New Orleans, LA.

Live Case – CTA Imaging Performed By: C Walker, MD; P Fail; MD; S Stagg, III, MD & Colleagues

Panel II: M Wholey, MD; B Weinstock, MD; R Beasley, MD; F Bunch, MD; E Kassab, MD; P Krishnan, MD; I Feuerstein, MD; M Khan, MD; Y Moosa, MD; M Wholey, MD; **R Smalling, MD** & C Peña, MD New Cardiovascular Horizons (NCVH) 2008 September, New Orleans, LA.

Live Case – Limb Salvage I Performed By: Craig Walker, MD; Peter Fail, MD; Samuel Stagg, III, MD & Colleagues

Panel I: R Beasley MD; A Schmidt, MD; R Gammon, MD; J Ruiz-Aburto, MD; R Gallino, MD; E Dippel, MD; F Bunch, MD; **R Smalling, MD**; T Das, MD; N Choksi, MD & G Biamino, MD.

New Cardiovascular Horizons (NCVH) 2008 September, New Orleans, LA.

Live Case – Critical Limb Ischemia Performed by: C Walker, Md & Colleagues

Panel II: A Schmidt, MD; R Dave, MD; R Gallino, MD; P Krishnan, MD; E Kassab, MD; E Dippel, MD; B Weinstock, MD; M Khan, MD; F Bunch, MD; R Beasley, MD; **R Smalling, MD**; B Reddy, MD.

New Cardiovascular Horizons (NCVH) 2008 September, New Orleans, LA.

Live Case – Limb Salvage I Performed By: C Walker, MD; P Fail, MD; S Stagg, III, MD

Panel I: R Beasley, MD; D Scheinert, MD; R Gammon, MD; J Ruiz-Aburto, MD; R Gallino, MD; E Dippel, MD; D Dulas, MD; **RG Smalling, MD**; T Das, MD & S Mehta MD
New Cardiovascular Horizons (NCVH) 2007 September, New Orleans, LA.

PANELS: (continued)

Live Case Part II performed by Walker CM, Fail P, Stagg III S.

Panel II Discussants: Heuser R, Khan M, Gallino R, Weinstock BS, **Smalling RG**, Dippel E, Razavi M, Fogarty T. *New Cardiovascular Horizons (NCVH)* 2006 November 5.

Critical Limb Ischemia (CLI) – Live Case Limb Salvage II performed by Walker CM, Fail P, Stagg III S.

Panel II Discussants: Ramaiah VG, Gammon RS, Serino F, Garcia L, Runyon JP, Neville R, Smalling RG, Veerina K, Choksi N, McNamara T. *New Cardiovascular Horizons (NCVH)* 2006 November 4.

PUBLICATIONS:

BOOK CHAPTERS:

Voyles WF, Smalling R, “Effects of Beta Blockade, Beta Stimulation and Afterload Upon Doppler Ejection Dynamics.” *Stress Doppler Echocardiography*. Editor: Teague, SM. Martinus Nijhoff Publishers, 1989.

ARTICLES:

1. Goswami NJ, **Smalling RG**, Sinha S, Gammon RS, Ramaiah VG. “Comparison of the Boomerang™ Wire vascular access management system versus manual compression alone during percutaneous diagnostic and interventional cardiovascular procedures: The Boomerang™ Wire Vascular Access Management trail II” *Catheterization and Cardiovascular Interventions*. 2016 87(1): 75-81
2. Allie DE, **Smalling RG**, Hebert CJ, Walker CM. “Novel Vascular Access Management: The Boomerang system facilitates manual compression while leaving nothing behind.” *Endovascular Today*. 2006 Apr; 5(4):52-58.
3. Block PC, **Smalling RG**, Owings RM. “Percutaneous Double Balloon Valvotomy for Bioprosthetic Tricuspid Stenosis.” *Catheterization and Cardiovascular Diagnosis*. 1994 33:342-344.
4. Hutchison SS, **Smalling RG**, Albornoz M, Colletti P, Tak T, Chandraratna PAN, “Comparison of Transthoracic and Transesophageal Echocardiography in Clinically Overt or Suspected Pericardial Heart Disease.” *The American Journal of Cardiology* 1994 Nov 1;74(9):962-965.

ARTICLES: (continued)

5. Hutchinson SJ, Smalling RG, Ma A, Tubau JF, Kawanishi DT, Tak T, Rahimtoola SH, Chandraratna PA. "Transthoracic and Transesophageal echocardiography pre and post percutaneous mitral catheter balloon valvulotomy." *J Heart Valve Dis.* 1994 Mar 3(2): 149-54.

PEER REVIEW:

1. Voyles WF, **Smalling RG**, Teague SM, Anderson JL, Johsen G, Thadani U. "Mitral Annular Calcification: An Age Stratified Case-Control Study." Submitted to *Archives of Internal Medicine*.
2. **Smalling RG**, Kawanishi DT, Chandraratna PAN, Rahimtoola SH "Small Left Ventricular Size and Length Are the Cause of Left Ventricular Perforation and Death During Double-Balloon Catheter Mitral Commissurotomy." Submitted for publication.
3. **Smalling RG**, Riggio D, Widerhorn J. "Pregnancy and AICD: Case Report of a Successfully Completed Pregnancy in A Female Patient with An Implantable Cardioverter Defibrillator." Submitted for publication.
4. **Smalling RG**, Albornoz M, Tak T, Tubau JF, Colletti P, Rahimtoola SH, Chandraratna PAN "Transesophageal Echocardiographic Evaluation of Pericardial Disease: Uses and Limitations of TEE Compared to Other Imaging Modalities." Submitted for publication.
5. **Smalling RG**, Agarwal C, Gupta R, Tak T, Tubau JF, Rahimtoola SH, Chandraratna PAN "Cardiac Masses: Transthoracic and Transesophageal Echocardiographic Comparative Study: Uses and Limitations of Technique/Technology." Submitted for publication.

ABSTRACTS:

1. **Smalling RG**. Results of the Boomerang II Trial: A multicenter, controlled, randomized comparison of Boomerang Access Management System to manual compression showing significantly accelerated time to ambulation and discharge without active fixation. Accepted for presentation at EuroPCR Conference, Barcelona, Spain. 2007 May.
2. **Smalling RG**, Accelerated Vascular Access management Without Active Mechanical Site, Accepted for presentation at the Annual International Symposium on Endovascular Interventional (ISET), Miami Beach, FL. 2006 January.
3. **Smalling RG**, Albornoz M, Tak T, Agarwal C, Tubau JF, Chandraratna PAN "Role of Transesophageal Echocardiography in Evaluating Pericardial Disease." *Circulation* 1992; 86(S1):I-726.

ABSTRACTS: (continued)

4. Marwah O, Poseley K, Tak T, **Smalling RG**, Youssef M, Kawanishi DT, Chandraratna PAN “Detection of Impaired Coronary Flow Reserve in patients with Angiographically Successful Angioplasty of the Left Anterior Descending Artery by Transesophageal Echocardiography.” *Circulation* 1992; 86(S 1): I-724.
5. **Smalling RG**, A Novel New Vascular Access Management Paradigm – Boomerang Wire System: Initial Experience”. Submitted for presentation at the Annual Scientific Meeting of the Society of Interventional Radiology (SIR), Toronto, CAN, 2006 Mar.
6. **Smalling R**, Kawanishi DT, Stellar W, Morrison E, Rahimtoola SH “Small Stature Increases Risk of Fatal Complications During Double-Balloon Catheter Commissurotomy for Mitral Stenosis.” Submitted for presentation at the XIV Annual InterAmerican Congress of Cardiology (IACC) Meeting, Orlando, FL, May 1992.
7. **Smalling R**, Agarwal C, Tak T, Tubau JF, Chandraratna PAN. “Comparison of Transesophageal and Transthoracic Echocardiography Findings in Rheumatic Mitral Valve Disease.” Submitted for presentation at the Annual Meeting of the American Heart Association, Anaheim, CA November 1991.
8. **Smalling R**, Kawanishi DT, Stellar W, Morrison E, Rahimtoola SH. “Small Stature Increases Risk of Fatal Complications During Double-Balloon Catheter Commissurotomy for Mitral Stenosis.” Submitted for presentation at the Annual Meeting of the American Heart Association (AHA), Anaheim, CA, November 1991.
9. **Smalling R**, Tak T, Tubau JF, Agarwal C, Chandraratna PAN. “Uses and Limitations of Transesophageal Echocardiography in the Evaluation of Cardiac Masses.” Submitted for presentation at the Annual Meeting of the American Heart Association (AHA), Anaheim, CA, November 1991.

CLINICAL RESEARCH

“**WINNER**” Registry; Cutting Balloon Device Utilization Trial. Principal Investigator: **Ron Smalling, MD**. 2002-2003.

RESEARCH EXPERIENCE:**INTERVENTIONAL CARDIOLOGY FELLOWSHIP: (1992-1993)**

1. “Intracoronary Fluosol During Direct PTCA for the Treatment of Acute Myocardial Infarction.” Principal Investigators: Peter C. Block, MD and Henry B. Garrison, MD.
2. “Excimer Laser Coronary Angioplasty Device with Saline Perfusion.” Principal Investigators: Peter C. Block, MD and Kenton Gregory, MD.

CLINICAL RESEARCH: (continued)

3. "Intracoronary Flow Support Device for the Treatment of Acute Coronary Artery Dissection Complicating Balloon Angioplasty." Principal Investigators: Henry B. Garrison, MD and Peter C. Block, MD.
4. Kawanishi DT, Stellar W, *Smalling R*, Marchand A, Morrison E, Rahimtoola SH. "Early and Late Effect on Exercise Hemodynamics of Catheter Balloon Commissurotomy for Mitral Stenosis." Submitted for presentation at the Annual Meeting of the American Heart Association (AHA), Anaheim, CA, November 1991.
5. *Smalling RG*, Albornoz M, Tak T, Agarwal C, Tubau JF, Chandraratna PAN. "Role of Transesophageal Echocardiography in Evaluating Pericardial Disease." Submitted for presentation at the Annual Meeting of the American Heart Association, New Orleans, LA, November 1992.
6. *Smalling RG*, Albornoz M, Tubau JF, Kawanishi DT, Tak T, Rahimtoola SH, Chandraratna PAN. "Transesophageal and Transthoracic Echo in Patients Undergoing Mitral Valve Balloon Commissurotomy." Submitted for presentation at the Annual Meeting of the American Heart Association (AHA), New Orleans, LA, November 1992.
7. Marwah O, Posley K, Tak T, *Smalling RG*, Youssef M, Kawanishi DT, Chandraratna PAN. "Detection of Impaired Coronary Flow Reserve in Patients with Angiographically Successful Angioplasty of the Left Anterior Descending Artery by Transesophageal Echocardiography." Submitted for presentation at the Annual Meeting of the American Heart Association (AHA) New Orleans, LA, November 1992.
8. *Smalling RG*, Kawanishi DT, Chandraratna PAN, Rahimtoola SH. "Small Left Ventricular Length and Volume are Associated with Left Ventricular Perforation and Death in Double-Balloon Catheter Mitral Commissurotomy." Submitted for presentation at the Annual Meeting of the American Heart Association (AHA), New Orleans, LA, November 1992.

GENERAL CARDIOLOGY FELLOWSHIP: (1989-1992)

1. "Mitral Catheter Balloon Commissurotomy (Valvuloplasty): Evaluation of Different Balloon Catheters Used for Mitral Valvuloplasty in the Treatment of Patients with Rheumatic Mitral Stenosis." Principal Investigator: David T. Kawanishi, MD.
2. "Evaluation of Pericardial Disease Using Transesophageal Echocardiography: Comparing the Uses and Limitations of Transesophageal Echocardiography Compared to Transthoracic Echocardiography and Other Noninvasive Imaging Methods."

INTERNAL MEDICINE RESIDENCY: (1986-1989)

1. "Doppler Indices for Assessing Early Ventricular Ejection." Veteran Administration Research Grant, May 1986. Principal Investigator: Wyatt Voyles, MD. Role was to develop and refine the experimental protocol in the canine model, induce pharmacologic manipulations during data acquisition, and assist with data analysis.
2. "Coronary Vasodilator Reserve – Studies Using Doppler Catheters." American Heart Association, funded November 1986. Principal investigator: Wyatt Voyles, MD. Role in this research included development of the animal model; assist during the experimental protocol, and data acquisition and analysis.

PATENTS
2 US Patents awarded:

Invention	Inventor	Country	Patent Number	Date Awarded
Pressure assist system for facilitating vascular hemostasis, and associated method	RGS	USA	8,100,987	January 24, 2012
Aspiration thrombectomy catheter system, and associated methods.	RGS	USA	10,188,409	January 29, 2019

Pharmacy/Pharmaceutical Speaker's Bureau
St. John's Mercy, Springfield, MO (1995-2014) Selected and served on the Pharmacy and Therapeutics Committee (PNT) - (1995-2014)

One of two selected Cardiology physician members of an exclusive group of personnel, to serve on the PNT board evaluating and selecting the drugs and medicines used for the entire health care system for both Hospital and Outpatients. Additionally, served the board by advising and selecting the drugs and medicines for the Mercy family of 5,000 employees and physicians.

Consultant Pharmaceutical Speaker's bureau (1995-2014):

Pfizer - Lipitor and ACCUPRIL® (quinapril HCl)

Merck - ZOCOR® (simvastatin)

DAIICHI SANKYO COMPANY, LTD - BENICAR®, BENICAR HCT® (olmesartan medoxomil and hydrochlorothiazide)

DAIICHI SANKYO COMPANY, LTD - Effient™ (prasugrel)

GlaxoSmithKline plc - Lovaza® (omega-3-acid ethylesters)

Forest Labs, Inc. - Benicar (olmesartan medoxomil)

Novartis AG - AstraZeneca PLC - (rosuvastatin) Sanofi-Aventis USA - AVAPRO® (irbesartan)

Sanofi- Aventis - Amarin Pharma, Inc. - VASCEPA® - (icosapent)