

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
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| NAME Joseph L. Mills, M.D. | POSITION TITLE Professor of Surgery Chief, Vascular Surgery Section University of Arizona | | |
|--|---|---------|---------------------------|
| eRA COMMONS USER NAME (credential, e.g., agency login) JOSEPHMILLS | | | |
| EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i> | | | |
| INSTITUTION AND LOCATION | DEGREE <i>(if applicable)</i> | MM/YY | FIELD OF STUDY |
| Georgetown University | B.S. | 1977 | Biology/German |
| Georgetown University School of Medicine | M.D. | 1981 | Medicine |
| Wilford Hall USAF Medical Center | | 1981-86 | Resident, General Surgery |
| Oregon Health Sciences University | | 1986-87 | Fellow, Vascular Surgery |
| Texas Tech University Health Sciences Center, Fellow | | 2004 | Endovascular Surgery |

A. Personal Statement

As a board-certified surgeon in vascular surgery and general surgery, my special interests include aortic aneurysm repair, carotid interventions to prevent stroke, and lower extremity bypass and endovascular intervention for limb salvage. My research has focused on vein graft stenosis, intimal hyperplasia and limb-salvage in patients with diabetes mellitus. I've published more than 175 peer-reviewed manuscripts and book chapters, served as editor or associate editor for the two most-widely utilized textbooks in vascular and endovascular surgery, and have been the principal investigator for more than 30 clinical and basic science research studies. My expertise is recognized regionally, nationally and abroad in duplex assessment of vascular reconstructions, lower extremity open surgical and endovascular reconstruction, and the education and training of surgical residents. I just completed a six-year term as a Director of the American Board of Surgery (ABS). I am the Chair of the Vascular Surgery Board, a component board of the ABS (2010-2013).

B. Positions & Honors

Positions

- 1987–1989 Assistant Chief, Vascular Surgery. Wilford Hall USAF Medical Ctr. Lackland AFB, TX
- 1989–1992 Chief, Vascular Surgery, Wilford Hall USAF Medical Ctr. Lackland AFB, TX
- 1992–1994 Associate Professor Surgery, University of South Florida. Tampa, FL
- 1994–Pres Director, Vascular Surgery Fellowship Program. University of Arizona, Tucson, AZ.
- 1994–Pres Professor of Surgery & Chief, Vascular & Endovascular Surgery. University of Arizona, Tucson

Other Experience/Memberships

- 2000-2006 Editorial Board, Journal of Vascular Surgery
- 2003-2008 Senior Examiner for Vascular Surgery, Certifying Exam, American Board of Surgery
- 2006-2008 President-Elect, Association of Program Directors in Vascular Surgery
- 2006-2010 Executive Committee, Association of Program Directors
- 2006-2008 Program Committee Chair, APDVS
- 2007-2013 Director, The American Board of Surgery
- 2008-2010 President, Association of Program Directors in Vascular Surgery
- 2012-2013 President, Rocky Mountain Vascular Surgery Society
- 2012-2013 President, Western Vascular Surgery Society
- 2013-2014 Board of Directors, SVS; Western Vascular Society Regional Representative

Honors and Awards

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| 1981 | Alpha Omega Alpha, Georgetown University School of Medicine |
| 1981 | Cum Laude, Georgetown University School of Medicine |
| 1985 | The Surgeon General's Award Outstanding Paper, Air Force Clinical Surgeons |
| 1993-1994 | Edwin J. Wylie Traveling Fellowship (Lifeline Foundation, SVS) |
| 2002 | The Anthony C. Guzauskas Excellence in Clinical Teaching Award, Univ of AZ |
| 2002 | Department of Surgery Outstanding Teaching Award, U of A COM Class of 2004 |
| 2004-2005 | Department of Surgery Outstanding Teaching Award |
| 2004-2007 | Who's Who in Science and Engineering |
| 2005 | University of Arizona College of Medicine, Class of 2006 |
| 2006-2008 | Who's Who in American Education, 7 th Editio |
| 2011 | The 8th Annual Edward James Olmos Award for Advocacy in Amputation Prevention. DFCon (Diabetic Foot Conference) |
| 2011 | The Anthony C. Guzauskas Excellence in Clinical Teaching Award, Univ of AZ |

C. Selected Peer-Reviewed Publications

1. Mills, JL. Larger Area Stenosis After PTA Predicts Anatomic Restenosis Commentary, Vascular Surgery Outlook, Volume 10-11, #3, 1999.
2. Ihnat DM, Mills JL, Dawson DL, Hughes JD, Hagino RT, DeMaiores CA, Gentile AT, Westerband A. The correlation of early flow disturbances with the development of infrainguinal graft stenosis: A 10-year study of 341 autogenous vein grafts. J Vasc Surg 1999;30:8-15.
3. Gentile AT, Mills JM, Westerband A, et al. Characterization of cellular density and determination of neointimal extracellular matrix constituents in human lower extremity vein graft stenosis. Cardiovascular Surgery, 7(4):464-469 1999.
4. Wixon CL, Mills JL, Ihnat DM, Westerband A, Hughes JD. Modulation of Human Vascular Smooth Muscle Cell Phenotype in Response to Arterialization. Surgical Forum. Vol L:419-421, 1999.
5. Patel SP, Mills JL, Tynan-Cuisinier G, Goshima KR, Westerband A, Hughes JD. Limitations of Magnetic Resonance Angiography in the Diagnosis of Renal Artery Stenosis: Comparative Analysis with Conventional Arteriography. J Vasc Surg 41:462-8, March 2005.
6. Ballard J, Mills JL. Surgical Management of Critical Limb Ischemia. Tech in Vasc and Intervent Radiology. Vol. 8, Issue 4, Pages 169-71, 2005.
7. Mills JL. *Invited Commentary on:* Heparin-bonded expanded polytetrafluoroethylene vascular graft for femoropopliteal and femorocrural bypass grafting: 1 year results. J Vasc Surg 2006;43:318-319.
8. Mills JL. *Invited Commentary:* Is Duplex Surveillance of Value After Leg Vein Bypass Grafting? Principal Results of the Vein Graft Surveillance Randomized Trial (VGST)". Perspectives in Vascular Surgery and Endovascular Therapy Vol 18, No. 2:194-196 June 2006.
9. Ihnat DM, Tynan-Cuisinier G, Mills JM. Influence of Hyperlipidemia and its Treatment on Outcome in Patients with Peripheral Arterial Disease. Vascular Disease Management. July/August 2006, Vol. 3, No. 4: 317-321.
10. Mills JL. *Invited Commentary on:* Prospective multi-center study of quality of life before and after lower extremity vein bypass in 1404 patients with critical limb ischemia. J Vasc Surg 2006;44:983-984.
11. Mills JL. Steal. Controversies in Dialysis Access. J of Vascular Access 2006;7:59-60.
12. Mills JL. The DRIL Procedure. Controversies in Dialysis Access. J of Vascular Access 2006;7:60-61.
13. Mills JL. *Invited Commentary on:* Does percutaneous transluminal angioplasty for critical limb ischemia benefit physiologically impaired patients unsuitable for open surgery? In: J Vasc Surg Feb 2007, Vol 45 (2):310-311.
14. Leon LR, Psalms B, Stevenson S, Mills JL. Review Article: Nontraumatic aneurysms affecting crural arteries: case report and review of the literature. Vascular; Vol 15, No.2:102-108 March-April 2007.

15. Dawson DL, Mills JL. Critical Limb Ischemia. Current Treatment Options in Cardiovascular Medicine. Vol. 9, No. 2; 159-70 April 2007.
16. Leon LR, Mills JL, Psalms SB, Goshima K, Duong S, Ukatu C. A novel hybrid approach to the treatment of common iliac aneurysms: Antegrade endovascular hypogastric stent grafting and femorofemoral bypass grafting. *JVS* 2007 June;45(6):1244-8.
17. Leon LR, Mills JL, Psalms SB, Kashner J, Kim J, Ihnat DM. Aortic Paraprosthetic-colonic fistulae: Review of the Literature. *Euro J of Vasc and Endo Surgery*. August 2007.
18. Leon LR, Ojeda H, Mills JL, Leon CR, Psalms SB, Villar HV. The journey of a foreign-trained physician to a United States residency: Controversies surrounding the impact of this migration to the U.S. *Journal of the American College of Surgeons*. Vol. 205(5), page e6. November 2007.
19. Leon LR, Psalms SB, Ihnat DM, Mills JL. Vascular Images: Aortic graft-colonic paraprosthetic fistula. *JVS* 47(2):460(and the cover), Feb 2008.
20. Leon LR, Psalms SB, Ihnat DM, Becker GJ, Mills JL. Endovascular Common Iliac Aneurysm Exclusion with Antegrade Hypogastric Artery Flow Preservation: a Novel Approach. *Vascular*, Vol 16, No 1, 2008.
21. Ihnat DM, Arslan B, Taylor Z, Leon L, Goshima K, Duong S, Mills JL. Contemporary outcomes after superficial femoral artery angioplasty and stenting: The influence of TASC classification and runoff score *JVS* Vol 47 (5) 967-974, May 2008.
22. Mills JL, Doung ST, Leon LR, Goshima KR, Wendel CS, Ihnat DM, Chavez L, Zimmerman H, Pike SL. Comparison of the effects of open and endovascular aortic aneurysm repair on long-term renal function using chronic kidney disease staging based on glomerular filtration rate. *JVS* Vol 47 (6); 1141-49, June 2008.
23. Luis LR, Goshima KR, Shemuel PB, Mills JL. Lower Extremity Glomus Tumors: Comprehensive Review for Surgeons. *Vascular*, Vol 16(5) 2008.
24. Mills JL. Open bypass and endoluminal therapy: Complementary techniques for revascularization in diabetic patients with critical limb ischemia. 5th International Symposium on the Diabetic Foot. *Diabetes/Metabolism, Research and Reviews*. *Diabetes Metab Res Rev* 2008; 24 (Suppl 1):S34-39.
25. Goshima KR, Mills JL, Awari K, Pike SL, Hughes, JD. Measure what matters: Institutional outcome data are superior to the use of surrogate markers to define "centers of excellence" for abdominal aortic aneurysm repair. *Ann Vasc Surgery* 2008, 22:328-334.
26. Sumpio BE, Allie DE, Horvath KA, Marston WA, Meites HL, Mills JL, et al. Role of negative pressure wound therapy in treating peripheral vascular graft infections. *Vascular* 2008 Jul-Aug; 16(4): 194-200.
27. Biskup NI, Ihnat DM, Leon LR, Gruessner AC, Mills JL. Infrainguinal Atherectomy: A retrospective review of a single-center experience. *Ann Vasc Surg* 2008; 22(6):776-782.
28. Leon LR, Psalms SB, Goshima KR, Mills JL, Labropoulos N. Lower extremities glomus tumors: A comprehensive review for surgeons. *Vascular* 2008 Nov-Dec; 16 (6): 326-332.
29. Mills JL. Vascular surgery training in the United States: a half century of evolution. *JVS* 2008;48(6 Suppl):90S-97S.
30. León LR, Mills JL, Jordan W, Morasch MM, Kovacs ME, Becker GJ, Arslan B, Dake MD, Katzen BT. The risks of celiac artery coverage during endoluminal repair of acute and chronic thoracic aortic pathology. *Vascular and Endovascular Surgery* Vol 43 (1) Feb/Mar 2009: 51-60.
31. Bharara M, Mills JL, Suresh K, Rilo HL, Armstrong DG. Diabetes and landmine-related amputations: A call to arms to save limbs. *Int Wound J* 2009; 6(1):2-3.
32. Fitzgerald RH, Mills JL, Joseph W, Armstrong DG. The diabetic rapid response acute foot team: 7 essential skills for targeted limb salvage. April 2009.
33. Armstrong DG, Boulton AJ, Andros G, Attinger C, Eisenbud D, Lavery LA, Lipsky BA, Mills JL, et al. Defining success in clinical trials of diabetic foot wounds: the Los Angeles DFCon consensus. *Int Wound J* 2009;6(3):211-3.
34. Lauvao LS, Ihnat DM, Goshima KR, Chavez L, Gruessner AC, Mills JL. Vein diameter is the major predictor of fistula maturation. *JVS* 2009;49(6)1499-1504.

35. Clark JC, Mills JL, Armstrong DG. A method of external fixation to offload and protect the foot following reconstruction in high risk patients: The SALSA stand. June 2009.
36. Ihnat DM, Mills JL. Current assessment of endovascular therapy for infrainguinal arterial occlusive disease in patients with diabetes. *J Vasc Surg* 2010; 52:92S-95S.
37. Eidt JF, Mills JL, Rhodes RS, Biester T, Gahtan V, Jordan WD, et al. Comparison of surgical operative experience of trainees and practicing vascular surgeons: A report from the Vascular Surgery Board of the American Board of Surgery. *J Vasc Surg* 2011;53:1130-40
38. Zhan LX, Bharara M, White ML, Bhatnagar S, Lepow B, Armstrong DG, Mills JL. Comparison of initial hemodynamic response after endovascular therapy and open surgical bypass in patients with diabetes mellitus and critical limb ischemia. *JVS* 2012 (56): 380.
39. Bui TD, Mills JL, Ihnat DM, Gruessner AC, Goshima KR, Hughes JD. The natural history of duplex-detected stenosis after femoropopliteal endovascular therapy suggests questionable clinical utility of routine duplex surveillance. *JVS* Feb 2012;55(2):346-352.
40. Leon LR, Dieter RS, Gadd CL, Ranellone E, Mills JL, Montero-Baker MF, Gruessner AC, Pacanowski JP. Preliminary results of the initial United States experience with the Supera woven nitinol stent in the popliteal artery. *J Vasc Surg* 2013; 57(4):1014-1022.
41. Braun JD, Trinidad-Hernandez M, Perry D, Armstrong DG, Mills JL. Early quantitative evaluation of indocyanine green angiography in patients with critical limb ischemia. *J Vasc Surg* 2013;57:1213-8.
42. Armstrong DG, Kanda VA, Lavery LA, Marston W, Mills JL, Boulton AJM. Mind the Gap: Disparity Between Research Funding and Costs of Care for Diabetic Foot Ulcers. *Diabetes Care* 2013; 36:1815-17.

D. Research Support

Ongoing Research Support

Carotid Revascularization Endarterectomy vs. Stent Trial (CREST) 2004 – 2014
 This is a prospective, randomized, multicenter clinical trial of carotid endarterectomy (CEA) versus carotid artery stenting (CAS) as prevention for stroke in patients with symptomatic stenosis $\geq 50\%$.
 Role: PI Sponsor: National Institutes of Health (NIH)

Completed Research Support

PIVOTAL STUDY: Positive Impact of Endovascular Options for Treating Aneurysms Early 2006- 2009
 Role: PI Sponsor: Cleveland Clinic Foundation and Medtronic Vascular

CABANA Registry: A carotid stenting Boston Scientific surveillance program 2006
 Role: PI Sponsor: Boston Scientific

A prospective evaluation of preoperative duplex criteria for creating arteriovenous fistulas 2006
 Role: Participating Investigator PI: Ihnat Sponsor: University of Arizona, IRB approved

Swirl Graft - A post marked clinical study to compare the performance of ePTFE SwirlGraft with a conventional PTFE graft for vascular access indications. 2008-2009
 Role: PI Sponsor: Veryan Medical

SONOMA - the NexStent Carotid Stent System: A post market approval evaluation study in conjunction with the FilterWire EZ embolic protection system. 2008-2009
 Role: PI Sponsor: Boston Scientific