

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF SURGERY

Katherine A. Gallagher, M.D., assistant professor of surgery, Department of Surgery, Medical School, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.

Academic Degrees:

M.D.	2002	University of Maryland
B.S.	1998	University of Maryland

Professional Record:

2011-present	Assistant Professor in Surgery, University of Michigan
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Summary of Evaluation:

Teaching: Dr. Gallagher is a dedicated and excellent teacher of trainees at all levels. She is highly regarded by trainees and medical students alike, who have only positive things to say about her. She is the current director for the Section of Vascular Surgery Medical Student Clerkship program and co-director of the Peripheral Arterial Disease (PAD) Program. In addition, she also holds several other teaching leadership positions at the University of Michigan, which include: M4 Anatomy Boot Camp Clinical Teacher and PAD Algorithm Development. Her teaching responsibilities have included medical student, house officer, and fellow education in a variety of settings, including but not limited to the scholarly functions that take place at the Medical School and Cardiovascular Center. She is also mentoring a surgical house officer, doing his research effort in the T32 Vascular Biology Training Program and a vascular surgery resident.

Research: Dr. Gallagher is one of the top clinician scientists in the country. Her research focuses on the mechanisms underlying impaired diabetic wound healing. Her long-term goal is to uncover the basic mechanisms responsible for the coordination of immune cells in early tissue repair processes, determine impairments in Type 2 Diabetes and translate this knowledge to the bedside. It is her belief that the diabetic phenotype has systemic effects on bone marrow cells that alter innate immune cell phenotypes resulting in impaired peripheral wound healing. Since joining the University of Michigan, her research has focused on histone methylation changes in bone marrow progenitor cells and the impact on peripheral macrophage phenotypes as it relates to wound healing and inflammation. This work has provided important data on inflammatory macrophages in peripheral tissue and their contribution to chronic inflammation and may lead to novel treatment modalities. Dr. Gallagher has 38 publications to her name in high impact journals, of which she is first author on 14. She has presented at 73 different

meetings, and also authored five book chapters. Her educational background equips her to continue making contributions to research in the field of vascular surgery.

Recent and Significant Publications:

Gallagher KA, Meltzer AJ, Ravin RA, Graham A, Shrikhande G, Connolly PH, Aiello F, Dayal R, McKinsey JF: Endovascular management as first therapy for chronic total occlusion of the lower extremity arteries: Comparison of balloon angioplasty, stenting, and directional atherectomy. *J Endovasc Ther* 18:624-637, 2011.

Arya S, Coleman DM, Osborne NH, Englesbe M, Rzucidlo E, Henke PK, Rectenwald JE, Gallagher KA: Outcomes of endovascular interventions for salvage of renal transplant allografts. *J Vasc Surg* 57:1621-1627, 2013.

Gallagher KA, Joshi A, Carson WF, Schaller M, Allen R, Mukerjee S, Kittan N, Feldman EL, Henke PK, Hogaboam C, Burant CF, Kunkel SL: Epigenetic changes in bone marrow progenitor cells influence the inflammatory phenotype and alter wound healing in type 2 diabetes. *Diabetes* 2014. PMID: 25368099 and highlighted as a featured article in *Nature Reviews Endocrinology* 11, 65 (2015) doi: 10.1038/nrendo.2014.207.

Cawthorn W, Scheller E, Learman B, Parlee S, Simon B, Mori H, Ning X, Bree A, Schell B, Broome D, Soliman S, Del Proposto J, Lumeng C, Mitra A, Pandit S, Gallagher KA, et al: Bone marrow adipose tissue is an endocrine organ that contributes to increased circulating adiponectin during caloric restriction. *Cell Metabolism* 20:1-8, 2014.

Gallagher KA, Obi AT, Elflin MA, Hogikyan D, Luke CE, Henke SP, Oostra C, Comerota AJ, Coleman D, Henke PK: Alterations in macrophage phenotypes in experimental venous thrombosis. Accepted by *JVS* Mar 2016.

Service: Dr. Gallagher currently serves as the chair of the Society for Vascular Surgery Research Awards Guidelines Sub-Committee, and is the lead member for the Society for Vascular Surgery Writing Group – Arterial Disease in Women. She is also a reviewer for numerous nationally recognized journals, which include: *Wound Repair Regeneration*, *Circulation*, *Diabetes*, *Journal of Surgical Research*, *Journal of the American Heart Association*, *PLoS ONE*, and is a distinguished reviewer for the *Journal of Vascular Surgery*. Dr. Gallagher currently holds memberships in the following professional societies: American College of Surgeons, Society for Vascular Surgeons, Association for Academic Surgery, Society for Clinical Vascular Surgery, Eastern Vascular Surgery, American Heart Association, Michigan Vascular Society, Midwestern Vascular Society, Vascular and Endovascular Surgery Society, and the American Diabetes Association. She is also a reviewer for the National Institutes of Health.

Professional Work: Dr. Gallagher is an outstanding physician and vascular surgeon. She demonstrates exceptional judgment in the clinic and technical skill in the operating room. She is described as a compassionate and competent physician, as well as collegial and level-headed. Dr. Gallagher's appointment with Vascular Surgery at the Cardiovascular Center has included

participation in all aspects of outpatient, inpatient and operative clinical care for a combined arterial and venous surgical practice with an emphasis on PAD, participation in multi-disciplinary clinics, call responsibilities at the Cardiovascular Center, and as a reader in the Diagnostic Vascular Laboratory. She is the co-director of the multi-disciplinary Peripheral Arterial Disease Program; to which she provides extraordinary service.

External Reviewers:

Reviewer A: “Dr. Gallagher has developed a regional and national reputation as a talented surgeon and basic science researcher... I believe that Dr. Gallagher’s quality and quantity of research is outstanding for someone at her stage of career... Her initial success in this field is a clear testament to her dedication and hard work, and she stands out as a leader of her peers in this regard. In addition to her clinical and research work, she has found time for significant service to our national societies, and as a journal reviewer.”

Reviewer B: “I sincerely believe that Kathy is the most important vascular surgeon-scientist [of her cohort] in the country and represents the finest qualities of our specialty. Most importantly, Dr. Gallagher’s clinical work is well respected; she is well-known to be a strong clinician and technical surgeon... Dr. Gallagher embodies the highest ideals of excellence in vascular surgery, performing meticulous and important work driving the field, with clear evidence of a national reputation for quality and excellence, as well as clinical care and teaching of the highest caliber.”


Reviewer C: “Dr. Gallagher is clearly a leader for all research scientists in vascular surgery, not simply those in the early stage of their careers. There are exceedingly few who can claim this career path across the country, and she places herself amongst likely fewer than a dozen vascular surgeons who have achieved external funding while maintaining an active clinical practice. Her work has and will continue to advance the treatment of patients with vascular disease. Her clinical, educational, and research accomplishments are stellar, and evidence of an emerging regional and national leader in vascular surgery.”

Reviewer D: “Dr. Gallagher represents the best of what it means to be an academic surgeon. Her contribution to surgical education is extensive. She mentors both medical students and fellows and has tremendous longitudinal success in launching success.”

Reviewer E: “Dr. Katherine Gallagher has few peers who meet her standards of innovative research contributions. The quality and impact of her work is truly world class... Dr. Gallagher’s record of performance, current level of funding and role in development of important new basic and clinical studies ensure that she will continue on her brilliant path to academic excellence and leadership.”

Summary of Recommendation:

Dr. Gallagher is an important national contributor for the vascular surgery community. She is truly a rising star and the University of Michigan will unquestionably benefit from her continued success as a member of the vascular surgery faculty. I strongly recommend Katherine A. Gallagher, M.D. for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School

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