

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Blake J. Roessler, M.D., associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School, is recommended for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

M.D.	1983	University of Cincinnati
A.B.	1979	Kenyon College, Gambier, Ohio

Professional Record:

1997-present	Associate Professor of Internal Medicine, University of Michigan
1997-2008	Associate Professor of Pharmacy, University of Michigan
1995-1997	Assistant Professor of Pharmacy, University of Michigan
1992-1997	Assistant Professor of Internal Medicine, University of Michigan
1990-1992	Instructor, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Roessler is very active as a teacher in both laboratory and clinical settings. In the laboratory he has trained many undergraduate students, graduate students and postdoctoral fellows. Through his role in the Vector Core he provides continuous education to colleagues throughout the medical campus. In all of his outpatient and inpatient clinical activities, Dr. Roessler is engaged in teaching as part of his clinical work, focusing on medical students, internal medical house officers and rheumatology fellows. His teaching evaluations are highly favorable and his teaching load is very substantial.

Research: Dr. Roessler's early research established him as a pioneer in the area of in vivo gene expression in specialized tissue such as brain and synovium. This work has provided a conceptual basis for gene therapy of human organ specific diseases. These research accomplishments also provided the basis for Dr. Roessler's institutional service roles in directing the Vector Core, the Human Applications Laboratory, and the Center for Gene Therapy. More recently, Dr. Roessler has turned his research focus to the development of novel molecular and structural approaches to imaging of cartilage and synovial fluid. This work is aimed at detecting significant changes in joint related tissues before structural changes have appeared that are detected by current imaging techniques. Molecular and spectroscopic profiling of cartilage, synovium and synovial fluid, also promises to provide novel insights into the pathogenesis of joint diseases such as osteoarthritis. Some of this work is currently supported by an NIH R21 grant.

Recent and Significant Publications:

Esmonde-White KA, Mandair GS, Raaii F, Jacobson JA, Miller BS, Urquhart AG, Roessler BJ, Morris MD: Raman spectroscopy of synovial fluid as a tool for diagnosing osteoarthritis. *J Biomed Opt* 14:034013, 2009.

Chamberland DL, Wang X, Roessler BJ: Photoacoustic tomography of carrageenan-induced arthritis in a rat model. *J Biomed Optics* 13:011005, 2008.

Kish PE, Tsume Y, Kijek P, Lanigan TM, Hilfinger JM, Roessler BJ: Bile acid-oligopeptide conjugates interact with DNA and facilitate transfection. *Mol Pharm* 4:95-103, 2007.

Dehring KA, Smukler AR, Roessler BJ, Morris MD: Correlating changes in collagen secondary structure with aging and defective type II collagen by Raman spectroscopy. *Appl Spectrosc* 60:366372, 2006.

Kolka JA, Vreede AP, Roessler BJ: Lipopolysaccharide recognition protein, MD-2, facilitates cellular uptake of *E. coli*-derived plasmid DNA in synovium. *J Gene Med* 7:956-964, 2005.

Service: Dr. Roessler consistently provides important contributions as a clinician in the Division of Rheumatology and Department of Internal Medicine. He holds a very busy weekly rheumatology clinic, seeing his own panel of patients as well as supervising trainees. He also does rounds each year for at least four weeks on both general medicine inpatient and rheumatology consultation services. His clinical workload and productivity is well beyond the norm expected for a physician scientist. Even more notable and outstanding are Dr. Roessler's institutional service contributions as a director of innovative core facilities that facilitate research advances by many investigators. These include the Vector Core, which provides high quality vectors for gene expression in vivo or in vitro, as well as the Human Applications Laboratory which prepares cells and molecular reagents for human clinical research protocols. Through his leadership of these facilities, Dr. Roessler has a broad impact on basic, translational and clinical research throughout the institution. These core units contribute in important ways to the success of the CTSA, the Cancer Center, the Rheumatic Diseases Core Center and other important multi-disciplinary efforts that involve millions of dollars of NIH funding annually to the University of Michigan. Few among our faculty have made such substantial contributions to the success of the research enterprise of the entire institution, over a sustained period of almost two decades.

External Review:

Reviewer A: "Particularly outstanding are his studies related to the development of technologies for gene transfer that have been applied to the study of cell and molecular biological processes and importantly to the development of approaches for clinical application....His publication record is indicative of the unique role that he has played in the Rheumatology Division in applying his scientific expertise to the study of important clinical diagnostic and therapeutic challenges."

Reviewer B: “I have also been impressed by the diversity and creativity of Dr. Roessler’s scholarly activities....Dr. Roessler is a skilled clinician, unusually innovative researcher, and exceptional contributor to institutional and national professional organization services. He has developed creative interdisciplinary research with biomedical engineers and gene therapists. Dr. Roessler is a valuable faculty member and deserving of promotion to Professor...”

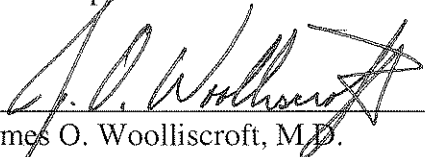
Reviewer C: “Dr. Roessler has a solid and continuing track record of attracting external funding. Notable is also his extensive portfolio of organizational services and involvement in regional, national and international committees....Dr. Roessler’s pioneering research is highly interdisciplinary, innovative and in many areas internationally leading.”

Reviewer D: “Dr. Roessler was one of the first investigators to use gene therapy for treatment of arthritis, and was especially one of the early pioneers in the use of adenovirus gene therapy for treatment of arthritis....it is highly appropriate at this time that Dr. Roessler be promoted to full Professor. This title would adequately reflect the importance and contribution of Dr. Roessler to so many of the University of Michigan’s outstanding facilities and research efforts, and his contributions to the extramural funding of a significant number of grants for the University of Michigan.”

Reviewer E: “Dr. Roessler has been active in his educational role, mentoring a significant number of graduate and post-doctoral students from a variety of different departments within the Medical School and also the College of Pharmacy.”

Summary of Recommendation:

Dr. Roessler’s two decade career at the University of Michigan has been distinguished not only by original and important scientific discoveries, but also by extraordinary contributions to building the research infrastructure and scientific capabilities of the University of Michigan. In addition, he is an accomplished clinician and teacher. His contributions have been recognized institutionally and nationally. I recommend him with high enthusiasm for promotion to professor in the Department of Internal Medicine.



James O. Woolliscroft, M.D.
Dean
Lyle C. Roll Professor of Medicine

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