

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF PATHOLOGY

Robertson D. Davenport, M.D., associate professor of pathology, with tenure, Department of Pathology, Medical School, is recommended for promotion to professor of pathology, with tenure, Department of Pathology, Medical School.

Academic Degrees:

M.D.	1984	University of Michigan
M.A.	1979	University of California, Berkeley
B.S.	1977	California Institute of Technology, Pasadena

Professional Record:

1997-present	Associate Professor of Pathology, University of Michigan
1990-1997	Assistant Professor of Pathology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Davenport has been active in education for medical students, residents in pathology, and fellows in blood bank, cytopathology, and adult and pediatric hematology. His clinical teaching occurs in the Blood Bank during daily rounds and during twice weekly sign-out sessions, and he is also active in teaching cytopathology. He teaches transfusion medicine to medical students for two hours a year during their second year. He is regarded as a superb educator who devotes considerable time and energy to explaining the complex issues involved in transfusion medicine and cytopathology. He has also been actively involved in post-graduate education, particularly in the series of Current Topics in Blood Banking at the University of Michigan and during didactic sessions at the annual meetings of the American Association of Blood Banks.

Research: Dr. Davenport's research has centered on hemolytic transfusion reactions, non-hemolytic transfusion reactions and transfusion-related acute lung injury. During his early years, he developed in vitro models of acute and delayed hemolytic transfusion reactions which helped him define the roles of cytokines and chemokines in the evolution of these reactions. His work was pioneering and has since been confirmed in both experimental models and in clinical studies by other investigators. More recently, he has concentrated on transfusion safety and apheresis. His group was one of the first to establish that West Nile Virus was transmittable by blood transfusion. Since his promotion to associate professor, he has been the author or co-author of 41 publications in high-quality peer-reviewed journals, including *Transfusion*, the most important journal in blood banking as well as *Clinical Laboratory Medicine* and *Diagnostic Cytopathology*, the most important journal for clinical cytopathology reports. He has had numerous invitations to present his work at regional, national and international professional meetings related to blood banking and transfusion medicine. He has also been the author or co-author of two books and 23 book chapters since his last promotion.

Recent and Significant Publications:

Davenport RD, Judd WJ, Dake LR: Persistence of cefotetan on red blood cells. *Transfusion* 44:849-852, 2004.

Kleinman S, Caulfield T, Chan P, Davenport R, McFarland J, McPhedran S, Meade M, Morrison D, Pinsent T, Robillard P, Slinger P: Toward an understanding of transfusion-related acute lung injury: statement of a consensus panel. *Transfusion* 44:1774-1789, 2004.

Zhou L, Giacherio D, Cooling L, Davenport RD: Use of B-natriuretic peptide as a diagnostic marker

in the differential diagnosis of transfusion-associated circulatory overload. *Transfusion* 45:1056-1063, 2005.

Cancelas JA, Rugg N, Pratt PG, Worsham DN, Pehta JC, Banks K, Davenport RD, Judd WJ: Infusion of P-Capt prion-filtered red blood cell products demonstrate acceptable in vivo viability and no evidence of neoantigen formation. *Transfusion* 51:2228-2236, 2011.

Yamada C, Ramon D, Cascalho M, Sung R, Leichtman A, Samaniego M, Davenport R: Efficacy of plasmapheresis on donor specific antibody reduction by HLA specificity in post-kidney transplant recipients. *Transfusion* 55:727-735, 2015.

Service: Dr. Davenport has made significant contributions to his profession and to his institution. He has been active and continues to be active in the American Association of Blood Banks where he has had significant committee assignments over the years. The same holds for the Michigan Association of Blood Banks for which he also served a term as president. He has been a member of the Institutional Review Board of MidMichigan Health and since 2007 he has been a member of the Institutional Review Board of the University of Michigan Medical School (IRBMED), for the past four years as its vice chair, a considerable time and energy commitment. Furthermore, he has been a member of the editorial board for *Transfusion*, the most important and prestigious journal in blood banking, a reviewer for 12 additional journals, and he continues to be a member of special emphasis panels of the National Institutes of Health.

Professional work: Dr. Davenport's primary clinical responsibilities are in the blood bank, where he has been the medical director since 2001. In this position, he has also been involved in several committees including the Blood Transfusion Process Improvement Team and the Transfusion Committee. He currently directs the ACGME-approved fellowship in Blood Banking-Transfusion Medicine. During his tenure, the blood bank has almost doubled the number of blood components prepared annually and the cell therapy laboratory has grown by nearly ten-fold the number of patients transplanted and the number of products annually manufactured. In addition, the apheresis procedures unit has more than doubled in volume, and is one of the largest such centers in the United States. In addition, Dr. Davenport also has responsibility as a cytopathologist, handling the diagnostic service for several weeks each year, where he is regarded as a superb diagnostician.

#### External Reviewers:

Reviewer A: "Dr. Davenport's contributions to extension of our knowledge base in transfusion medicine over the years have been substantial and broad based. Combining his interest in transfusion reactions and knowledge of immunology and clinical pathology, he elucidated key pathologic mechanisms of ABO-based reactions. Notably, he also has contributed numerous articles of substantial practical import in the operation of a transfusion services laboratory, always looking to blend efficiency with scientific rigor in providing patients with a safe transfusion experience....His many listings as a participant on others' grants and his contributions to numerous articles across a broad range of departments document his willingness to be of assistance and the value that his skill and experience bring to a project."

Reviewer B: "Dr. Davenport is well known and respected nationally and internationally. He has authored, co-authored, and edited numerous book chapters and books including authoritative chapters in well-known textbooks. He has presented his original work at national meetings and is a sought-after speaker at educational sessions....Dr. Davenport has performed a great deal of service to the transfusion community. He has been an advisor, Board Member, and Executive Committee member of the regional American Red Cross, and...a very active member and leader of the AABB (formerly American Association of Blood Banks), and President of the Michigan Association of Blood Banks. He has been a frequent member of NIH ad hoc review teams that were formed to evaluate scientific programs or individual research proposals. He continues to review original manuscripts for journals that publish work in pathology, blood transfusion and immunology."

Reviewer C: “His most valuable contribution has been expanding our understanding of transfusion reactions especially the role of cytokines in hemolysis including the cytokines produced, their effects on the hemolysis process and the impact on patients clinically. The processes he described have become an established part of our understanding of these reactions....An effective blood bank/transfusion service is essential for the strong and diverse clinical programs of the University of Michigan and the nature of their programs places a major demand on the blood bank/transfusion service. This blood bank has been a national leader for decades, initially under the direction of Hal Oberman and Rob has continued that excellence successfully....Rob is well known as a national leader in transfusion medicine.”

Reviewer D: “Rob has been a strong teacher at national meetings in our profession and carries a significant educational load at Michigan for medical students, Pathology residents, clinical fellows in transfusion medicine and hematology, and medical technologists around the country....he has been a member of the IRB and now is Vice Chair....IRB service and leadership requires significant time commitment and leadership responsibilities are bestowed upon those among us who are thoughtful scholars and ethical thinkers. IRB leadership most likely represents a high level of endorsement by Rob’s peers and the institutional leadership.”

Reviewer E: “I can frankly say that Rob is a superb blood banker and scientist that has clearly done some cutting-edge research on hemolytic transfusion reactions and plasmapheresis. He can also eloquently communicate his research results to others and can succinctly and critically analyze the various data produced not only from his own work, but from other laboratories. He has an almost unique ability to draw together multitudes of information into a readily digestible form.”

Summary of Recommendation:

Dr. Davenport is a blood banking and transfusion medicine expert and scientist, one of the pillars of his profession nationally, who has performed groundbreaking work in our understanding of the mechanisms leading to transfusion reactions and transfusion-associated lung injury. He is regarded as a superb educator with great commitments to medical students, residents and fellows as well as post-graduate students. In recognition of the many contributions and leadership roles that Dr. Davenport has served in the blood bank community and in the University of Michigan, I am pleased to recommend Robertson D . Davenport, M.D. for promotion to professor of pathology, with tenure, Department of Pathology, Medical School.



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

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