PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY

<u>Kojo S.J. Elenitoba-Johnson, M.D.</u>, 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.	1988	University of Lagos, Nigeria
Pre-Medicine	1983	University of Lagos, Nigeria

Professional Record:

2006-present	Associate Professor of Pathology, University of Michigan
2003-2006	Associate Professor of Pathology, University of Utah
1997-2003	Assistant Professor of Pathology, University of Utah

Summary of Evaluation:

Teaching: Dr. Elenitoba-Johnson's main educational activities involve residents and fellows in hematopathology and molecular genetic pathology when they rotate through the services. In hematopathology, most of the teaching occurs during microscopic diagnostic sign-out, and on the molecular genetic service, the teaching involves one-on-one evaluation of complex genetic and molecular tests with the residents and fellows. He also gives multiple didactic lectures in both of these areas. For molecular genetic pathology, he has developed a new fellowship program, and he has already successfully recruited the first fellow to begin in July, 2009. Dr. Elenitoba-Johnson has also mentored postdoctoral and graduate students in the laboratory setting. At the national level, he and his colleagues have developed the first Short Course Symposium on Proteomics for Pathologists at the annual meetings of the United States and Canadian Academy of Pathology, beginning in 2009. He is the convener and director of the Proteomic Symposium at the 2008 Congress of the International Academy of Pathology; he has directed a short course in Advanced Molecular Pathology for the USCAP and a similar course for the College of American Pathologists. In all of these activities, he is regarded as an enthusiastic, dedicated and highly effective teacher.

<u>Research</u>: Dr. Elenitoba-Johnson's research has been focused on the elucidation of the biologic events underlying the development and progression of malignant lymphomas. He has become an internationally renowned leader in the field of mass spectrometry-driven proteomics studies of hematopoietic malignancies. Prior to coming to the University of Michigan in 2006, he made

major contributions evaluating the discordance between the detection of p53 mutations and its protein in Reed-Sternberg cells in Hodgkin's lymphoma. He also contributed greatly to our understanding of follicular lymphoma progression by demonstrating that a p16 tumor suppression gene was targeted by genetic alterations in this progression. During his tenure at the University of Michigan, he has developed an approach for identification of chromosomal translocation partners. More recently, he has begun the definition of the proteomic signature of malignant lymphomas using tandem mass spectrometry. The goal of these studies is the elucidation of the pathogenic aberrations underlying the development and evolution of lymphoma, and thereby identifying unique molecular, genomic and/or proteomic targets that may be bio- markers for early disease detection, prognostication or targets for novel therapy. His work has been continually funded. He is currently the principal investigator on a R01 from the NIH to study salivary MALT lymphoma. He is also the principal investigator of an R33 from the NIH/NCI for the evaluation of proteomics of follicular lymphoma transformation. His research has been recognized by his being the Ramzi Cotran Young Investigator awardee from the United States and Canadian Academy of Pathology, a once-a-year award given to the most outstanding young investigator in the United States. He has been invited to present his work at the European Association for Hematopathology meeting in France, at the International Academy of Pathology International Congress in Greece, and at the Cancer Institute in the Howard Hughes Medical Institute, both affiliated with New York University. His work has appeared in highly selected, peer-reviewed journals, including the PNAS, Molecular Diagnosis, Human Pathology, Laboratory Investigation, Proteomics, and National Biotechnology. In the two years since he has been on the faculty at the University of Michigan, he has had ten publications.

Recent and Significant Publications:

Mathivanan S, Ahmed M, Ahn NG, Elenitoba-Johnson KS, et al.: Human proteinpedia enables sharing of human protein data. *Nat Biotechnol* 26(2):164-167, 2008.

Schumacher JA, Crockett DK, Elenitoba-Johnson KS, Lim MS: Evaluation of enrichment techniques for mass spectrometry: identification of tyrosine phosphoproteins in cancer cells. *J Mol Diagn* 9(2):169-177, 2007.

Vaughn C, Crockett DK, Lin Z, Lim MS, Elenitoba-Johnson KSJ: Identification of proteins released by follicular lymphoma-derived cells using a mass spectrometry-based approach. *Proteomics* 6:3223-3230, 2006.

Elenitoba-Johnson KS, Crockett DK, Schumacher JA, Jenson SD, Coffin CM, Rockwood AL, Lim MS: Proteomic identification of oncogenic chromosomal translocation partners encoding chimeric anaplastic lymphoma kinase fusion proteins. *Proc Natl Acad Sci USA* 103:7402-7407, 2006.

Readings NS, Lim MS, Elenitoba-Johnson KSJ: Detection of acquired Janus kinase 2 V617F mutation in myeloproliferative disorders by fluorescence melting curve analysis. *Mol Diagn Ther* 10(5):311-317, 2006.

Service: Dr. Elenitoba-Johnson directs the Molecular Diagnostic Laboratory within the Department of Pathology, which is responsible for sophisticated evaluation of molecular and

genetic diagnostic testing for the medical center. This is critical for patient care, particularly in diagnosis and treatment of neoplasms and evaluation of specific genetic abnormalities that contribute to patient diseases. He is also responsible for introducing new diagnostic tests into that service. He has developed that laboratory to the point where it is now one of the premier such molecular and genetic diagnostic services in the country. In addition, he is responsible for routine diagnosis on the Hematopathology Service for approximately two months a year.

Professional Work: Dr. Elenitoba-Johnson has done great service to his department and to his He has administrative responsibilities as director of the Clinical Molecular profession. Diagnostics Laboratory of the Department of Pathology and he is also the director of the Division of Translational Pathology of the Department of Pathology, a new division that is geared to making the department one of the premier translational institutions in the country, if not the world, and it was for this position he was specifically recruited. Within that division, he has been instrumental in developing the mass spectrometry-based proteomics resource which provides services including identification of proteins from multiple sources, shotgun proteomics analysis of complex mixtures using multidimensional proteomic identification technology, identification of post-translational modifications and quantitative proteomic profiling using stabilized isotope labeling of amino acids in culture. He is a member of numerous professional societies in both pathology and in basic science. He is an associate editor of the Journal of Hematopathology and a reviewer for such prestigious journals as Blood, Cancer Research, American Journal of Pathology, Cancer, Journal of Molecular Diagnostics and Proteomics. He has been on the abstract review board for several important societies. He has also been a reviewer of grants for the National Institutes of Health and the National Cancer Institute, and in January 2009, he will become a member of the Pathology and Tumor Biomarkers Panel of the National Cancer Institute of Canada. He is a member of the scientific advisory board of the Lymphoma Research Foundation, the chair-elect of the Hematopathology Division of the Association for Molecular Pathology, and a consultant to the Food and Drug Administration.

External Review:

Reviewer A: "Dr. Elenitoba-Johnson's niche is partnering new technologies with routine diagnostics....He understands continued utility of more traditional diagnostic methods, including morphology and immunophenotyping, and adds on these new techniques to rapidly advance the field. I would say he has few peers in this area....His successful track record of funding would support the idea that he is an outstanding scientist as well as clinical pathologist."

Reviewer B: "Kojo has been a highly productive and successful investigator in the field of hematopathology....He is regarded as an expert in his field and he sits on the review panels of several influential granting agencies...He reviews for prestigious journals and organizations and he is an Associate Editor of the Journal of Hematopathology."

<u>Reviewer C</u>: "I consider Kojo to be the world's leading board-certified pathologist in the realm of proteomics research....Kojo is unique in being both a leading investigator of proteomic identification and exploration of human disease...and being the individual who can bring these

technologies to clinical fruition. In his recruitment to the University of Michigan, he and his team now position your institution to be the world's leader in this translational research."

Reviewer D: "He is without a doubt, an outstanding role model for students of all ethnic backgrounds, as well as academic institutions, such as the University of Michigan, in its commitment to leadership in international diversity and attracting academic excellence in its recruited medical/scientific faculty."

Reviewer E: "Dr. Elenitoba-Johnson is a national and internationally recognized hematopathologist with research interests in the biology of lymphoma and the application of novel technologies to the study of human disease. In comparison to colleagues at similar premier academic institutions like the University of Michigan, Dr. Elenitoba-Johnson would certainly place at least in the top 5% of his peers or better....I have no hesitation stating that Elenitoba-Johnson's accomplishments are so significant that there would be no question of promotion to the rank of Professor in the ladder series here... You are indeed a very fortunate institution."

Summary of Recommendation:

Kojo S.J. Elenitoba-Johnson, M.D., is one of the premier scientists in the world in the study of the evolution of lymphomas, and his current research and clinical work involves the use of proteomics to further elucidate this progression. His work has been continually funded from external sources, including the NIH. He is a dedicated clinician, an effective and enthusiastic educator, and a great support for his department and his profession. I enthusiastically recommend him for promotion to professor of pathology, with tenure.

James O. Woolliscroft, M

Dean

Lyle C. Roll Professor of Medicine

May 2009