

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF RADIOLOGY

Hero K. Hussain, M.D., Assistant Professor of Radiology, Department of Radiology, Medical School, is recommended for promotion to Associate Professor of Radiology, with tenure, Department of Radiology, Medical School.

Academic Degrees:

M.D. 1986 University of Baghdad, Iraq

Professional Record:

2002-present Assistant Professor of Radiology, University of Michigan
1999-2002 Lecturer, Department of Radiology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Hussain participates in all aspects of the radiology teaching program. She gives formal conferences to the radiology residents in rotation with other faculty and provides daily on-the-job teaching on the clinical service. Dr. Hussain has consistently ranked in the top quartile of radiology faculty for the quality of her teaching, both in the formal conference setting and on the clinical service. Typical comments include “wonderful teacher,” “cannot be replaced, outstanding,” “outstanding radiologist and person!” “Dr. Hero is definitely a role model in my training.”

Dr. Hussain has been recognized with several teaching awards. The residents in the Department of Radiology recognized her with the “Mentor of the Year” award in 2002 and the “Teacher of the Year” award in 2007. With over 140 faculty in the Department of Radiology, selection as the Teacher of the Year is indeed, a high honor. In addition, Dr. Hussain does an excellent job in scientific and continuing medical education courses. She is a frequently invited speaker at national and international educational meetings.

Dr. Hussain leads Radiology’s efforts in body magnetic resonance imaging. She is the clinical director of the service and is responsible for resident education. She determines the curriculum for radiology residents rotating on the service as well as the formal noon conferences in body magnetic resonance imaging. She coordinates the teaching of others on the service and is the ultimate source of information for trainees.

Research: Dr. Hussain’s research is focused on magnetic resonance imaging of the body. Her specific areas of interest include MR imaging of the liver and MR urography. She has made important contributions to the field in the technical aspects of hepatic MR imaging, identifying imaging features for better characterization of small hepatocellular carcinomas and establishing methods for fat quantification of the liver. She is the principal investigator on a NIH R21 grant to validate MR imaging as a non-invasive technique for hepatic fat quantification using biopsy

and spectroscopic fat measurements as the gold standard. She is a significant co-investigator on two other NIH grants assessing non-invasive methods for quantifying hepatic fat using MR imaging. Her goal is to develop a reliable non-invasive method to quantify fat content in the liver that can replace percutaneous biopsy.

Dr. Hussain is a pioneer in the development of MR urography where she developed the MR imaging techniques used to assess pelvic floor disorders. She is a co-investigator on a NIH grant evaluating the support mechanisms of the vaginal wall. In addition to her success in obtaining NIH grants in this highly competitive environment, the quality of her research is further confirmed by peer-reviewed publications in high quality journals.

Recent and Significant Publications:

Ergen F, Hussain H, Carlos R, Johnson T, Adusumilli S, et al: 3D excretory MR urography: improved image quality with intravenous saline and diuretic administration. *J Magn Reson Imaging* 25:783-78, 2007.

Marrero J, Hussain H, Nghiem H, Umar R, Fontana R, et al: Improving the prediction of hepatocellular carcinoma in cirrhotic patients with an arterially-enhancing liver mass. *Liver Transpl* 11:281-289, 2005.

Ergen F, Hussain H, Caoili E, Korobkin M, Carlos R, et al: MRI for preoperative staging of renal cell carcinoma using the 1997 TNM classification: Comparison with surgical and pathologic staging. *AJR* 182, January 2004.

Hussain H, Syed I, Nghiem H, Johnson T, Carlos R, et al: T2-weighted MR imaging in the assessment of cirrhotic liver. *Radiology* 230:637-644, 2004.

Hussain H, Londy F, Francis I, Nghiem H, Weadock W, et al: Hepatic arterial phase MR imaging with automated Bolus-detection three-dimensional fast gradient-recalled-echo sequence: Comparison with test-Bolus method. *Radiology* 226:558-566, 2003.

Service: Dr. Hussain provides service both to the University of Michigan and to the field of radiology on a national level. She is an integral member of the Department of Radiology. When Dr. Petter Eldevik retired last year, Dr. Hussain was the unanimous choice to succeed him as Chief of Magnetic Resonance Imaging. Here she is responsible for a variety of functional processes including screening for metallic objects prior to undergoing MR imaging, specific body imaging protocols, patient scheduling and, in conjunction with our Chief MR technologist, determining technologist deployment on the scanners. She is a member of the MR Research Committee which oversees the use of the human 3T research magnet. She has also served as a member of the Resident Selection Committee and as the Director of the Cross-sectional Fellowship Program. She currently serves as a member of the Scientific Review Committee for the General Clinical Research Center. On a national level she is a member of the Scientific Exhibit Review Committee for the Radiological Society of North America, the largest radiology society in the world. She has served as a member of the CT and MR Committee for the NIH

funded ACR Imaging Network. She is also an active member and serves on committees for the Society of Uroradiology and the American Roentgen Ray Society.

External Review:

Reviewer A: “Dr. Hussain’s scholarly pursuits have had a significant impact on the field of abdominal imaging. She has published and is currently actively involved in two ‘hot-topics’ in the field of liver imaging and hematology....Dr. Hussain has contributed significantly to national peer organizations including the Radiological Society of North America, the American Roentgen Society and the American College of Radiology.”

Reviewer B: “I consider Dr. Hussain one of a small group of leading international experts in the field of body MRI....I...found her to be knowledgeable and innovative regarding advanced applications and techniques for body MR imaging....it became clear that her knowledge and abilities placed her, in spite of her junior status, at a level higher than all but five or ten individuals I have met in the country.”

Reviewer C: “Dr. Hussain’s contributions have been recognized in North America as well as Europe—she has delivered more than 25 presentations....Dr. Hussain is clearly a leader in her field and a significant asset to the Michigan community. She has a proven track record and I fully expect she will continue her stellar trajectory.”

Reviewer D: “She is a natural teacher, with clarity of thought and presentation. Her lectures consistently receive high ratings from the ISMRM audience—which is a group of clinical MR radiologists, Physicists and MR experts.”

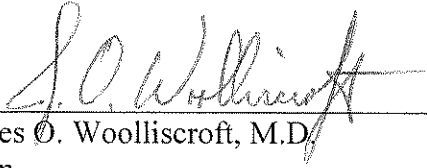
Reviewer E: “Her expertise in body MRI makes her quite unique as this remains a relatively under populated and extremely important discipline in Radiology. For individuals to be most successful in this area, a mastery of complex technical skills as well as diverse clinical principles is essential. Dr. Hussain is one of the few who excels at this dual mastery.”

Reviewer F: “In addition to her regional teaching accomplishments she is also recognized at national and international levels and has been asked to lecture worldwide. As a true role model, her research, work ethic, teaching abilities, and enthusiasm serve as templates for practicing radiologists, radiologists-in-training and MR technologists.”

Summary of Recommendation:

Dr. Hussain is widely respected throughout the medical center for her clinical expertise. Through her peer-reviewed publications and scientific presentations at national and international meetings, Dr. Hussain has become a leader in MR imaging of the abdomen and pelvis. She provides service not only at the University of Michigan but also to national radiology organizations. Most importantly, Dr. Hussain provides a wonderful role model for trainees and junior faculty as someone who is able to balance her clinical and teaching obligations with her

research pursuits and do an excellent job in all of them. I am pleased to recommend Dr. Hussain for promotion to Associate Professor, with tenure, in the Department of Radiology.

A handwritten signature in cursive script, reading "J. O. Woolliscroft". The signature is written in black ink and is positioned above a horizontal line.

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2008