

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF RADIATION ONCOLOGY
DEPARTMENT OF RADIOLOGY
UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCES

Alnawaz Rehemtulla, Ph.D., Associate Professor of Radiation Oncology, with tenure, Department of Radiation Oncology, and Associate Professor of Radiology, without tenure, Department of Radiology, Medical School, and Associate Professor of Environmental Health Sciences, without tenure, Department of Environmental Health Sciences, School of Public Health, is recommended for promotion to Professor of Radiation Oncology, with tenure, Department of Radiation Oncology, Professor of Radiology, without tenure, Department of Radiology, Medical School, and Professor of Environmental Health Sciences, without tenure, Department of Environmental Health Sciences, School of Public Health.

Academic Degrees:

1987	Ph.D.	University of Calgary
1984	Msc.	University of Calgary
1982	Bsc.	University of Calgary

Professional Record:

2004-Present	Associate Professor of Environmental Health Sciences, University of Michigan
2002-Present	Associate Professor Radiology, University of Michigan
2000-Present	Associate Professor Radiation Oncology, University of Michigan
1995-2000	Assistant Professor of Radiation Oncology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Rehemtulla lectures to students and residents in the Medical School and teaches graduate students in the School of Public Health. He is coordinator of "Radiation Oncology: From Bench to Bedside" which is offered to third- and fourth-year medical students to present them with basic principles of research in radiation and cancer biology. Some of his students have gone on to become academic radiation oncologists. In addition, Dr. Rehemtulla trains undergraduate and graduate students, research technicians, and postdoctoral fellows in his laboratory.

Research: Since 1995, Dr. Rehemtulla has published more than 65 papers in the field of gene therapy, apoptosis, and molecular imaging. He has made important contributions to all of these fields. His work on the regulation of apoptosis was initiated early in his tenure. This work was funded by an RO1 and has resulted in a series of highly referenced manuscripts (*Proc Natl Acad Sci* 97:1754-1759, 2000 has been cited 140 times since publication; *J Biol Chem* 272:25783-25786, 1997 has been cited 100 times since publication). As an outgrowth of his gene therapy studies, he has over the last three years initiated a program in Molecular Imaging. This is now his major effort. He has carried out important collaborative projects with Dr. Ross in Radiology in

magnetic resonance diffusion imaging, which have been translated into high profile clinical trials. He has led the development of a series of unique model systems that permit the imaging of key biological processes in animals, such as p53 activation. He is also an outstanding collaborator. This work has proven to be very fruitful in terms of publications as well as in grant funding both for himself and his collaborators. He is a co-principal investigator on a P50 Center Grant at Michigan.

Recent and Significant Publications:

Chen G, Bhojani MS, Heaford AC, Chang DC, Laxman B, Thomas DG, Griffin LB, Yu J, Coppola JM, Giordano TJ, Lin L, Adams D, Orringer MB, Ross BD, Beer DG, Rehemtulla A: Phosphorylated FADD induces NF- κ B, perturbs cell cycle, and is associated with poor outcome in lung adenocarcinomas. *Proc Natl Acad Sci USA* 102(35):12507-12512, 2005.

Moffat BA, Chenevert TL, Lawrence TS, Meyer CR, Johnson TD, Dong Q, Tsien C, Mukherji S, Quint DJ, Gebarski SS, Robertson PL, Junck LR, Rehemtulla A, Ross BD: Functional diffusion map: A noninvasive MRI biomarker for early stratification of clinical brain tumor response. *Proc Natl Acad Sci USA* 102(15):5524-5529, 2005.

Hamstra DA, Lee KC, Tychewicz JM, Schepkin VD, Moffat BA, Chen M, Dornfeld KJ, Lawrence TS, Chenevert TL, Ross BD, Gelovani JT, Rehemtulla A: The use of 19F spectroscopy and diffusion-weighted MRI to evaluate differences in gene-dependent enzyme prodrug therapies. *Mol Ther* 10(5):916-928, 2004.

Laxman B, Hall D, Swaroop M, Chenevert T, Ross BD, Rehemtulla A: Non-invasive imaging of apoptosis. *Proc Natl Acad Sci USA* 99(26):16551-16555, 2002.

Chinnaiyan A, Prasad U, Sunita P, Shinniyam M, Hamstra D, Chenevert T, Ross BD, Rehemtulla A: Combined effect of tumor necrosis factor related apoptosis inducing ligand and ionizing radiation in breast cancer therapy. *Proc Natl Acad Sci* 97:1754-1759, 2000.

Service: Dr. Rehemtulla is co-director for the program in Molecular Imaging within the Cancer Center. He is also a founding member of the Society for Molecular Imaging and on the editorial board of the journal *Molecular Imaging*. He will co-chair the fourth annual meeting of the Society for Molecular Imaging in 2006. He also founded and is editor of the journal *Neoplasia*. His recent work in Molecular Imaging has established the Center for Molecular Imaging at Michigan as a premier institution in the field.

External Review:

Reviewer A: "...Dr. Rehemtulla is a superb investigator and would be appointed to this rank at any university in the country...He is definitely in the top 1% of his peer group and has excelled in his field."

Reviewer B: "This individual, perhaps more than anyone is responsible for the remarkable success of the Michigan team in obtaining external funding in molecular imaging...but without [Rehemtulla], the Michigan group could not be as highly ranked in this field as it is today. I would love to have this person on my team, as would any other molecular imaging group in this country."

Reviewer C: “There are few researchers in the world with his background and of his caliber who have decided to work primarily in imaging and fewer still who have done so as elegantly. He continues to make important contributions to cancer biology but, significantly, he applies them to imaging and, with Dr. Ross, translates those discoveries to the clinic. I believe that he is a world leader in molecular-genetic imaging and has the capacity to train and otherwise influence the next generation of imaging scientists.”

Reviewer D: “The scientific contributions from Dr. Rehemtulla are incisive and sustained....As a collaborator and leader, Dr. Rehemtulla invests himself into many laboratories’ programs. He is sought as a scientific thought-leader, and is recognized by his peers for the insight and critical thinking he brings.”

Reviewer E: “Dr. Rehemtulla is the Editor of *Neoplasia*, an internationally recognized cancer research journal and is on the Editorial Board of the journal, *Molecular Imaging*. I would rank Dr. Rehemtulla in the top 5% of his peers and strongly support his application for promotion to the level of professor at the University of Michigan.”

Reviewer F: “His international reputation and stature as a world-class scientist is evidenced by his many invitations to speak and chair sessions at international meetings and at various institutions around the world....It should also be noted that his service extends outside the university to include significant involvement in the Society for Molecular Imaging’s governance and meetings as well as participation in other organizations....His publication record is truly outstanding on the basis of its impact on and recognition by his peers and on the basis of the scientific merit of this research. His funding record is equally outstanding. I recommend his promotion with the highest level of enthusiasm.”

Summary of Recommendation:

We strongly endorse the promotion of Dr. Alnawaz Rehemtulla to Professor, with tenure, in the Department of Radiation Oncology and Professor, without tenure, in the Department of Radiology and in the Department of Environmental Health Sciences. He has been extraordinarily productive since his last promotion, and his work is highly translational. We anticipate that he will continue to be a valued member of the faculty.



Allen S. Lichter, M.D.
Dean, Medical School
*Newman Family Professor
of Radiation Oncology*



Kenneth E. Warner, Ph.D.
Dean, School of Public Health

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