PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF RADIATION ONCOLOGY

Reshma Jagsi, M.D., D.Phil., assistant professor of radiation oncology, Department of Radiation Oncology, Medical School, is recommended for promotion to associate professor of radiation oncology, with tenure, Department of Radiation Oncology, Medical School.

Academic Degrees:

| M.Sc. and D.Phil. | 2002 | Oxford University, Oxford, England |
|-------------------|------|------------------------------------|
| M.D. | 2001 | Harvard University |
| A.B. | 1995 | Harvard-Radcliffe Colleges |

Professional Record:

2006-present Assistant Professor of Radiation Oncology, University of

Michigan

Summary of Evaluation:

Teaching: Dr. Jagsi is a dedicated and able teacher. She has been particularly active in graduate medical education and serves on the graduate medical education committee in the Department of Radiation Oncology. She spends 10-15 hours every week in direct one-on-one apprenticeship teaching of an individual resident, and she consistently receives excellent teaching evaluations in this role. Since starting on the faculty, 12 residents and two fellows have spent three months each rotating with her, learning about breast cancer by seeing her interact with her patients and by discussing cases and research papers with her. Many of the residents who have rotated with her have then been inspired to conduct research projects to continue working under her mentorship. Dr. Jagsi also teaches residents and medical students through the regularly scheduled teaching conferences, journal clubs, and seminars. Residents look forward to Dr. Jagsi's weeks because she is particularly interactive and Socratic in her teaching of them. Dr. Jagsi has also actively sought out the medical students who rotate through radiation oncology; in addition to countless hours discussing breast cancer treatment with these students, she has formally mentored three students in research projects. Dr. Jagsi has given annual lectures for the Michigan State radiation therapy students. She has also been active in peer education by lecturing in numerous University of Michigan continuing medical education courses, breast care center multidisciplinary forums, and departmental conferences. She is relatively unique. certainly in radiation oncology, as she teaches for a number of other groups across the University as well. For example, she has taught law students in a weekly mini-seminar (for which she was evaluated in the top quartile for law faculty) and lectured in a seminar series on Women and the Economy for the Institute for Research on Women and Gender. She has also taken on this year the substantial responsibility to teach a 30-session weekly seminar for the health servicesoriented residents participating in the Robert Wood Johnson Foundation Clinical Scholars Program.

Research: Dr. Jagsi has been exceptionally productive in her research. She has already written 39 peer-reviewed original papers, and she has served as first author on a very high number of these (27). When she joined our faculty, she immediately obtained a number of seed grants, which she has then leveraged into three substantial and highly competitive grants: one from the American Cancer Society, one from the Robert Wood Johnson Foundation, and an R01 grant She has gained a national reputation both as a breast from the National Institutes of Health. cancer researcher in radiation oncology and as a social scientist with expertise in gender disparities in the medical profession, and she is a sought-after presenter, having been invited to speak at such prestigious institutions as Memorial Sloan-Kettering Cancer Center, the Mayo Clinic, and Massachusetts General Hospital. In her time as an assistant professor, the primary focus of her research has been on improving the quality of care delivered to patients with breast cancer. She seeks to do this in two ways: first, through clinical research to improve the efficacy and safety of the radiation therapy we use to treat breast cancer, and second, through health services research to improve patient decision-making, knowledge, and access to appropriate care. She has an exceptional ability to conduct complex medical physics research, clinical trials, and She has published a number of highly regarded clinical studies, survey studies to that end. including studies evaluating accelerated regimens of partial breast irradiation and studies assessing the cardiovascular toxicity of breast radiation and developing new techniques to minimize it. She has a substantial grant from the American Cancer Society to study patient experiences and outcomes in a randomized breast radiation technology trial and is actively involved in efforts to build both a statewide registry and a nationwide registry to evaluate the patterns and correlates of use of advanced radiation technologies, as well as the comparative effectiveness of various treatments. In addition, she has published a number of papers with the CanSORT collaborative group, which partners with SEER registries to gather patient-reported data regarding treatment receipt, experiences, and decision-making. As the sole radiation oncologist in that highly visible group, she has been able to provide a unique perspective and to lead a number of analyses with important implications for the improvement of breast cancer care in this country. Thus, although social scientists and health services researchers are still relatively rare in radiation oncology, many regard her as one of the emerging leaders in a nascent field that she is helping to build. Another important focus of Dr. Jagsi's research is upon the medical profession more generally, and her work in that area has most recently been focused on gender equity and predictors of success within academic medicine. She has established herself as a national authority in this area as well. A recent study she published revealing sex disparities in the success rates of NIH K Award recipients in achieving R01 grants was widely read and particularly influential. She has large ongoing projects funded by her R01 and by the Robert Wood Johnson Foundation to build upon this critical line of research, in which she is again rapidly becoming a national authority.

Recent and Significant Publications:

Jagsi R, Abrahamse P, Morrow M, Hawley ST, Griggs JJ, Graff JJ, Hamilton AS, Katz SJ: Patterns and correlates of adjuvant radiotherapy receipt after lumpectomy and after mastectomy for breast cancer. *J Clin Oncol* 28:2396-2403, 2010.

Jagsi R, Motomura A, Griffith K, Rangarajan S, Ubel PA: Sex differences in attainment of independent funding by career development awardees. *Ann Intern Med* 151:804-811, 2009.

Jagsi R, Ben-David M, Moran J, Marsh R, Griffith K, Hayman J, Pierce LJ: Unacceptable cosmesis in a protocol investigating intensity modulated radiation therapy with active breathing control for accelerated partial breast irradiation. *International Journal of Radiation Oncology, Biology, Physics* 76:71-78, 2009.

Jagsi R, Griffith K, Koelling T, Roberts R, Pierce LJ: Rates of myocardial infarction, coronary artery disease, and risk factors in patients treated with radiation for early stage breast cancer. *Cancer* 109:650-657, 2007.

Jagsi R, Guancial E, Cooper C, Chang Y, Henault L, Starr R, Tarbell N, Hylek E: The "gender gap" in authorship of academic medical literature--a 35-year perspective. *New England Journal of Medicine* 355:281-287, 2006.

Service: Dr. Jagsi provides outstanding clinical care for patients with breast cancer, both through radiation oncology clinics and as a regular member of the multidisciplinary breast cancer tumor board and clinic. Dr. Jagsi has been a loyal contributor to administrative service as well. For her department, she has served on a Lean Thinking Committee, helping to streamline our processes of care. She is also an active member of the Graduate Medical Education Committee and the Quality Improvement Committee. At a national level, she serves in a number of prestigious administrative positions. These include serving on the Scientific Program Committee of the American Society for Clinical Oncology, serving as a question-writer for the American Board of Radiology's certification examinations, and serving as a grant reviewer for the Department of Defense Congressionally Directed Medical Research Programs. She performs peer review service for a wide range of high-impact journals, and she was recently asked to serve on an elite mentorship committee of the Association of Professors of Medicine (the premier association of internal medicine department chairs, who were so impressed by her research in this area that they asked her to join their committee). In light of her substantial contributions, she also recently took on co-chair responsibilities for the national Radiation Oncology Institute's Research Committee, which seeks to direct a multi-million dollar philanthropic organization's resources for the betterment of the profession and society. She also serves as the delegate of the American Society for Radiation Oncology to the Young Physicians' Section of the American Medical Association and on the Radiation Oncology Committee of the American Association of Women Radiologists.

External Review:

Reviewer A: "Dr. Jagsi has established a national reputation for excellence in breast cancer radiation oncology....One area of specific expertise for which she is recognized, is the appropriate use of innovative treatment technologies to improve the safety and efficacy of treatments for breast cancer."

Reviewer B: "Dr. Jagsi represents the most desirable characteristics of an academic physician. She is superbly trained and a wonderful educator.... Her intelligence, intellectual curiosity, and

ability to articulate issues in her areas of expertise make her a natural researcher. In terms of her accomplishments, I would rank her in the top 1% of her peers."

Reviewer C: "...Dr. Jagsi has published as a leading national authority in the field of gender disparities in academic medicine...Over the years, she has continued to conduct high quality, very much valued research within this area. In my opinion, she is one of the preeminent scholars in this field."

<u>Reviewer D</u>: "...she has written extensively about the proper use of radiation therapy for breast cancer...The quality of this work is excellent. Her papers are clear, logical, and data is presented in an organized fashion."

Reviewer E: "...Dr. Jagsi has already made very unique contributions to the field of medicine with her skills in comparative social policy and her resulting contributions to evaluating the work reduction rules impact in residency training programs, to gender issues and junior faculty issues, and more recently to physician and patient factors relating to the receipt of radiation therapy for breast cancer."

Summary of Recommendation:

Dr. Jagsi has a national reputation in health services research as it applies to the advancement of women in medicine, with specific expertise in breast cancer research and comparative clinical effectiveness of IMRT and 3D conformal therapy. She is an outstanding physician and a highly regarded teacher. I enthusiastically support her promotion to associate professor, with tenure, in the Department of Radiation Oncology.

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

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