

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF FAMILY MEDICINE

Approved by the Regents
May 14, 2009

Caroline R. Richardson, M.D., assistant professor of family medicine, Department of Family Medicine, Medical School, is recommended for promotion to associate professor of family medicine, with tenure, Department of Family Medicine, Medical School.

Academic Degrees:

M.D.	1994	Harvard University
B.S.	1986	Massachusetts Institute of Technology

Professional Record:

2004–present	Assistant Professor of Family Medicine, University of Michigan
1998–2004	Clinical Lecturer of Family Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Richardson has developed a substantial reputation as a teacher. She has demonstrated a high level of quality as a clinical teacher of medical students in the outpatient family medicine setting for one four-hour session weekly (average quality scores in the range of 4.3 to 4.9 out of 5, which is at or above the department average for medical student teaching). She also had primary responsibility as the initial developer of a required, major M2 sequence focusing on interpersonal violence (1999-2006), and continues to be an active teacher in the course. The sequence is often one of great controversy in many medical schools, but at the University of Michigan it has become one of the most highly-rated experiences in the second year. She makes several presentations to M3 clerkship students each year (mean score 4.84/5) with numerous positive comments about her evidence-based teaching style and engaging give-and-take presentation skills. She has also served as a mentor to five medical students in the past three years in the Summer Biomedical Research Program, as well as two undergraduate students (2006, 2007) in the UROP. She has received one TAMS award (Token of Appreciation from Medical Students).

Her significant service as a mentor extends to Robert Wood Johnson Clinical Scholars from whom she recently received the Clinical Scholars Program Mentor Award. She serves as a mentor to two VA postdoctoral fellows. She has served as a research mentor for five family medicine residents in recent years, a particularly large commitment. She has made several presentations each year to family medicine residents (scores in the 4.55 to 5.0 range), in addition to her core clinical precepting responsibilities at the Chelsea Family Health Center.

She has given several major Grand Rounds presentations to the department since her last promotion, as well as a wide range of regional and national CME presentations (scores in the 4.59 to 4.96 range). She has made major professional and academic skills presentations at the

Society of Teachers of Family Medicine (STFM) as well as 11 major invited national presentations in her area of research expertise since 2003.

Overall both the quantity and quality of teaching exceed an already high norm in the Department of Family Medicine. Her service as a mentor to medical students, residents and fellows is particularly notable.

Research: Dr. Richardson's research training has been particularly rigorous, with a high level of expertise in complex quantitative and qualitative methods appropriate to study the measurement and promotion of physical activity in high risk, underserved, chronic disease patients. This is an area of considerable need and importance, but often fraught with weak study design, poor mathematical modeling, and a lack of rigorous measurement methods. She is believed to be one of only two family physicians nationally to be recruited to and appointed in the VA HSR&D unit, a particularly well-regarded health services research unit. Her role has progressed from mentee to mentor as she has developed a large and successful research team that has tackled a wide range of projects and grants.

Her growth as an independent investigator is attested by her success in securing grant funding to support her work, the large number of invited presentations she has made, her commitment to manuscript review for several major journals, and her involvement in a range of national scientific committees. She serves as principal investigator on three federally-funded grants (a Mentored Clinical Research Career Development K Award and two VA Merit Awards totalling \$1.3M), as well as being selected as a Robert Wood Johnson Foundation Faculty Scholar for a four-year investigator award. She serves as a co-investigator or consultant on five major and three minor grants that total roughly \$3.8M in total funding. This work has generated the publication of 23 data-based and peer-reviewed manuscripts (12 as first- or senior-author) since her promotion in 2003, in addition to 11 abstracts. Her total number of publications is somewhat modest, but the recent "slope" of her publication productivity curve is impressive as several large studies come to fruition. As noted above, she has also made 11 major national invited presentations during that time, in addition to 67 presentations in other venues. She reviews manuscripts for 18 scientific journals, as well as serving on the executive board of a national physician activity resource center and a member of the STFM Research Committee that plans the research presentation section of a major national annual conference.

As a result of this significant success in both her research and its dissemination, Dr. Richardson is considered a major national expert on the measurement and promotion of physical activity in underserved and high-risk patients with chronic disease, as well as a resource for complex methodologic approaches to study these and related topics.

Recent and Significant Publications:

Strath SJ, Holleman RG, Ronis DL, Swartz AM, Richardson CR: Objective physical activity accumulation in bouts and non-bouts and relationships to markers of obesity in U.S. adults. *Prev Chronic Dis* in press.

Richardson CR, Newton TL, Abraham JJ, Sen A, Jimbo M, Swartz AM: A meta-analysis of pedometer-based walking interventions and weight loss. *Ann Fam Med* 6(1):69-77, 2008.

Goodrich DE, Larkin AR, Lowery JC, Holleman RG, Richardson CR: Adverse events among high-risk participants in a home-based walking study: a descriptive study. *Int J Behav Nutr Phys Act* 4(1):20, 2007.

Richardson CR, Mehari KS, McIntyre LG, Janney AW, Fortlage LA, Sen A, Strecher VJ, Piette JD: A randomized trial comparing structures and lifestyle goals in an internet-mediated walking program for people with type 2 diabetes. *Int J Behav Nutr Phys Act* 16:4(1):59, 2007.

Richardson CR, Kriska AM, Lantz PM, Hayward RA: Physical activity and mortality across cardiovascular disease risk groups. *Med Sci Sports Exerc* 36(11):1923-9, 2004.

Service: Dr. Richardson is certified by the American Board of Family Medicine. She is an outstanding clinician who practices a broad range of outpatient family medicine, with an active continuity personal practice at the Dexter Family Practice Center for one to two sessions/week in addition to providing on-call coverage. She has served on the Department's Advisory Committee on Promotion and Tenure for a two-year term. She also serves as a core faculty member for the RWJ Clinical Scholars Program and is a member of the Behavioral Core of the Michigan Diabetes Research and Training Center. Perhaps one of her most high impact areas of national scientific service is her leadership in developing a Family Medicine Research "Wiki" sponsored by the Family Medicine Digital Research Library, an electronic library resource of high impact and national sponsorship. Locally, Dr. Richardson's expertise in physical activity promotion has been brought to bear for the benefit of the UM community through her consultation with the Active U worksite physical activity promotion intervention, as well as serving as a consultant to M-FIT.

External Review:

Reviewer A: "Dr. Richardson's standing in relation to her peer group working in the same field is excellent. She is one of a small group of researchers who are challenging assumptions that physical activity interventions can only be delivered one-on-one, or in small group settings."

Reviewer B: "I think Dr. Richardson compares very favorably with her peer group. She is building a strong record of external research funding, is active in several scientific/medical associations, and makes frequent presentations at meetings....I see her as an emerging leader in research and service in the areas of physical activity, health, and public health."

Reviewer C: "Within family medicine Dr. Richardson is clearly among a still relatively small and elite group of academic family physicians who have successfully developed a sustainable research program, obtained NIH funding and published [a] body of work that has contributed substantially to the literature in an area of focus."

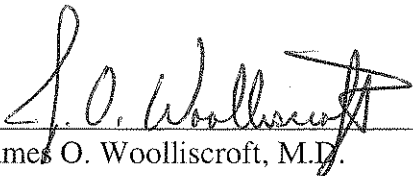
Reviewer D: "Her standing amongst assistant professors in departments of family medicine is very high, a top 10 percentile faculty member, likely to be recruited away to 'greener pastures.'"

Reviewer E: "...her CV indicates a strong record of reviewing for multiple medical and health journals, as well as clinical teaching and mentorship...giving many presentations both locally and nationally. She also has served on several expert panels nationally, addressing the related issues of physical activity and obesity."

Reviewer F: "...I am very impressed with Dr. Richardson's all-around skill and ability. I believe she is an outstanding scientist and methodologist. She has already made major contributions to the field. Dr. Richardson has an unusual depth and breadth of knowledge that can speak to medical, biological, behavioral, social and public health disciplines."

Summary of Recommendation:

Dr. Richardson is an outstanding academic family physician whose rigorous research training and methodologic expertise have led to significant success as an independent investigator in the field of physical activity promotion. She is particularly expert in innovative approaches to health promotion using the Internet in underserved, high-risk, chronic disease populations. Her success has led to a significant national leadership role that could dramatically alter the approach to health promotion in the VA health care system. She has become a mentor and leader of a large research group that is developing several health services and clinical research programs. Her teaching skill and educational development expertise matches her research expertise, and she is also an outstanding clinician who maintains a small but important continuity family medicine practice. She is strongly recommended for promotion to associate professor, with tenure, in the Department of Family Medicine.



James O. Woolliscroft, M.D.
Dean
Lyle C. Roll Professor of Medicine

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