# PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION

Noelle E. Carlozzi, Ph.D., associate professor of physical medicine and rehabilitation, with tenure, Department of Physical Medicine and Rehabilitation, Medical School, is recommended for promotion as professor of physical medicine and rehabilitation, with tenure, Department of Physical Medicine and Rehabilitation, Medical School.

# Academic Degrees:

Ph.D.	2005	Oklahoma State University
M.S.	2003	Oklahoma State University
B.A.	1998	Vassar College

### Professional Record:

2015-Present	Associate Professor of Physical Medicine and Rehabilitation, with tenure,
	University of Michigan
2010-2015	Assistant Professor of Physical Medicine & Rehabilitation,
	University of Michigan
2008-2010	Assistant Professor of Physical Medicine and Rehabilitation,
	University of Medicine and Dentistry of New Jersey
2007-2010	Research Scientist, Kessler Foundation Research Center, New Jersey
2007-2008	Research Scientist of Psychology and Brain Sciences, Indiana University
2005	Adjunct Assistant Professor, College of Charleston, South Carolina

### Summary of Evaluation:

<u>Teaching</u>: Dr. Carlozzi is an innovative and effective educator who believes that mentoring the next generation of clinical research scientists is the best way to strategically advance her own research interests and those of the university. She has served as a coach in the Medical School's annual R01 Boot Camp program each year since 2016. Nine of her mentored faculty have secured their own research funding and several have pending applications. Dr. Carlozzi also is a mentor for two Medical School faculty with K awards. She has also delivered numerous formal lectures to residents, fellows, and research staff regarding outcomes measurement and clinical research. She has delivered several lectures to national and international audiences on the subjects of her research efforts.

Research: Dr. Carlozzi's research is focused on using patient-reported outcomes and personalized, adaptive interventions to improve health-related outcomes for patients and their families. She is an expert in health-related quality of life computer-adaptive test development, outcomes measurement validation, and the innovative application of patient-reported outcomes in real-world settings. Dr. Carlozzi has had continuous NIH funding since 2009, and is currently a principal investigator or co-investigator for eleven funded projects that span federal, industry and foundation partners. Dr. Carlozzi's measurement development work has resulted in two new publically

available health-related quality of life measurement systems: the HDQLIFE, a PRO measurement system that evaluates HRQOL that is specific to Huntington disease; and TBI-CareQOL, a PRO measurement system that evaluates HRQOL that is specific to caregivers of persons with traumatic brain injury. They are currently being used in several research studies and clinical trials across the country and internationally. Dr. Carlozzi also serves as the director of the Center for Clinical Outcomes Development and Application (CODA), a core center housed within the Institute for Health Policy and Innovation. CODA provides consultation for measurement selection and application to evaluate clinical questions and interventions; develops new measures for validity, precision, sensitivity, efficiency and clinical relevance; and uses measurement systems and strategies to inform the creation and refinement of interventions to improve the quality of life of those we care for. Dr. Carlozzi has published 146 peer reviewed articles, with more than 50 in the past two years, and has been invited to present her research on 30 occasions regionally, nationally and internationally.

# Recent and Significant Publications:

Carlozzi, NE, Boileau, NR, Chou, KL, Ready, RE, Cella, D, McCormack, MK, Miner, JA, and Dayalu, P: HDQLIFE and Neuro-QoL physical function measures: Responsiveness in persons with Huntington's disease. *Movement Disorders*, 35(2), 326-336, 2020.

Carlozzi, NE, Kallen, MA, Hanks, R, Hahn, EA, Brickell, TA, Lange, RT, French, LM, Kratz, AL, Tulsky, DS, Cella, D, Miner, JA, Ianni, PA, and Sander, AM: The TBI-CareQOL Measurement System: Development and preliminary validation of health-related quality of life measures for caregivers of civilians and service members/veterans with traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*, 100(4S), S1-S12, 2019.

Carlozzi, NE, Schilling, S, Kratz, AL, Paulsen, JS, Frank, S, and Stout JC: Understanding patient-reported outcome measures in Huntington disease: At what point is cognitive impairment related to poor measurement reliability? *Quality of Life Research*, 27(10), 2541-2555, 2018.

Carlozzi, NE, Schilling, SG, Lai J, Paulsen, JS, Hahn, EA, Perlmutter, JS, Ross, CA, Downing, NR, Kratz, AL, McCormack, MK, Nance, MA, Quaid, KA, Stout, JC, Gershon, RC, Ready, RE, Miner, JA, Barton, SK, Perlman, SL, Rao, SM, Frank, S, Shoulson, I, Marin, H, Geschwind, MD, Dayalu, P, Goodnight, SM, and Cella, D: HDQLIFE: Development and assessment of health-related quality of life in Huntington disease (HD). *Quality of Life Research*, 25(10), 2441-2455, 2016.

Carlozzi, NE, Kratz, A, Austin, A, Sander, A, Chiaravalloti, ND, Brickell, T, Lange, A, Austin, A, Miner, J, and Tulsky, DS: Health-related quality of life in caregivers of individuals with traumatic brain injury: Development of a conceptual model. *Archives of Physical Medicine and Rehabilitation*, 96, 105-113, 2015.

<u>Service</u>: Dr. Carlozzi is a nationally recognized leader in outcomes measurement. Her current leadership roles include as the co-chair for the new Rehabilitation Common Data Elements initiative at the NIH, an invited panelist for an NIH special interest panel to be held December 2020, as a member of the Research Advisory Committee for Division 22 of the American Psychological Association,

a member of the Advisory Committee for the NINDS HD CDE initiative, and as a federal consultant for the 15-year congressionally mandated study on traumatic brain injury in the military. Past service includes membership and numerous positions on the Executive Committee for the measurement Networking Group at the American Congress for Rehabilitation Medicine since 2015. Dr. Carlozzi participated in the Early Career Women Faculty Professional Development Seminar organized by the Association of American Medical Colleges in 2014 and the Mid-Career Women Faculty Professional Development Seminar organized by the Association of American Medical Colleges in 2019.

### **External Reviewers:**

Reviewer A: "Dr. Carlozzi has made substantial contributions to rehabilitation research and practice throughout her career, and the five years since her last promotion are not an exception. To say that she has been incredibly prolific would be a significant understatement...Dr. Carlozzi is truly an exceptionally productive and impactful rehabilitation researcher. Her work on outcomes measurement has advanced the field's ability to test new interventions and other factors that impact outcomes of persons living with Huntington's Disease, TBI, and a range of other clinical populations. She has extended the influence of her work through mentorship of the next generation of researchers, as well as through national and international collaborations. I would consider her to be within the top 2% of her peers in terms of her accomplishments and contributions. She would easily be promoted to Professor with Tenure at my institution."

Reviewer B: "[Dr. Carlozzi] has an impressive NIH funding record with multiple R01s. This long-term funding clearly puts her as one of the most successful researchers in her field. More importantly, Dr. Carlozzi's work has been widely adopted in relation to outcome measurement in neurologic diseases, with certain measures being adopted into the Neuro-QoL measurement systems. These measures are essential as we work to investigate rehabilitation and pharmaceutical interventions that improve quality of life. It is the publication [sic] that support these measures that I believe are outstanding...Dr. Carlozzi is an exceptional scientist with a proven track record. I have read the University of Michigan Medical School overview of the faculty tracks and believe that she deserves this promotion to full professor with tenure...If she were at [my institution] I am confident she would be promoted to this same rank."

Reviewer C: "Dr. Carlozzi has clearly reached the level of excellence in the instructional track with deep impact on the education of our field through her mentorship and teaching...Dr. Carlozzi has been meaningfully and highly productive in the area of scholarly activity and research... Dr. Carlozzi has contributed meaningfully to our field in ways that are moving our clinical care, education, service, and research forward. As such, she is a highly valued contributor to the field of Rehabilitation. I highly support Dr. Carlozzi's application for promotion to Professor with Tenure."

Reviewer D: "In the area of scholarship, Noelle stands out as a respected scholar in neuropsychology. She is a recognized author for many peer reviewed publications. This is highlighted in some of her journal publications that addresses test development, neuropsychological assessment, patient-reported outcomes, Huntington Disease, caregivers, psychometrics, and Health-Related Quality of Life...Overall, embracing an education philosophy of planned and structured learning experiences for clients/patients, caregivers, staff, students,

educators has allowed Noelle to make a significant contribution to practice, education, research, and professional development of herself and others, and to the profession. Through Dr. Carlozzi's knowledge, expertise, research and service, she continues to advance neuropsychology and measurement education as well as healthcare. She is truly an outstanding educator, researcher and role model for physical medicine and rehabilitation as well as the University of Michigan."

Reviewer E: "Her steady, collaborative work has resulted in multiple contributions to the field of quality of life in Huntington's disease and traumatic brain injury...Her *Quality of Life Research* and *Movement Disorders* journal articles on the HDQLIFE Measurement System represent important advances for obtaining useful quality of life information in HD patients and families. Dr. Carlozzi is a fine teacher and educator as evidenced by her thoughtful and well-received presentations at HSG meetings...Dr. Carlozzi is a nationally and even internationally respected and valued expert in assessment of quality of life in Huntington's disease and traumatic brain injury, and she has an impeccable reputation for excellence in her field of work. I highly recommend her for promotion to Professor with Tenure."

# **Summary of Recommendation:**

Dr, Carlozzi is an innovative, collaborative and prominent rehabilitation psychologist and scientist who has made significant contributions to the field of rehabilitation psychology, especially regarding quality of life measurement and measurement outcomes. She is a talented presenter, mentor and educator and a visionary leader who contributes both in external and internal service. I am pleased to recommend Noelle E. Carlozzi, Ph.D. for promotion to professor of physical medicine and rehabilitation, with tenure, Department of Physical Medicine and Rehabilitation, Medical School.

Marschall S. Runge, M.D., Ph.D.

Executive Vice President for Medical Affairs

Dean, Medical School