Dear Members of the IFNA Nominating Committee:

I, Joel G. Anderson, PhD, CHTP, FGSA University of Tennessee-Knoxville, nominated N. Maritza Dowling, MS, PhD for the Innovative Contribution to Family Nursing Award.

Dr. Dowling's innovative contributions to her portfolio of research focused on measurement issues in the longitudinal assessment of cognitive decline in older adults and the application of novel statistical approaches to model the complex interplay between risk and protective factors in ADRD-related brain changes and biomarkers for disease prognosis. For several years, my colleagues and I have witnessed the tremendous contributions Dr. Dowling has made to gerontological science as a researcher. Her research interests lie at the intersection of health and cognitive aging, risk and disease heterogeneity, and racial/ethnic disparities. Dr. Dowling's work in applied biostatistics lies in the areas of functional data analysis, development and evaluation of predictive models using statistical and machine learning, and novel approaches for the optimization of outcome measures. Her work in ADRD aims to improve the understanding in three main areas: (1) how lifestyle risk factors affect later-life brain health outcomes; (2) the heterogeneity of disease trajectories; and (3) social stratification and cognitive health. Dr. Dowling provides statistical leadership on collaborative projects with clinical researchers from various biomedical and public health fields, including diagnosis of dementia, racial disparities in diagnosis of dementia, measuring and predicting cognitive decline, and dementia caregiving among the sexual and gender minority (SGM; i.e., LGBTQIA+) population. It is this work focused on the SGM population that continues to significantly extend what we know about the health and wellbeing of this underserved population.

Dr. Dowling is a co-investigator on the RISE Project (Research Inclusion Supports Equity), serving as an expert in research registry design and management, as well as statistical expertise and data management. RISE is funded through an R24 award from the National Institute on Aging and aims to build community and research engagement among SGM older adults at risk for ADRD and their caregivers. I serve as co-principal investigator of RISE, along with Dr. Jason Flatt from the University of Nevada-Las Vegas and Dr. Whitney Wharton from Emory University. RISE is the first federally funded national effort to include SGM people in ADRD caregiving research. Dr. Dowling's contributions to the innovation and success of RISE have been significant. Through her advisement and leadership, we have successful created and maintained a registry of 1000+ SGM registrants who are keen to engage aging research. Dr. Dowling has taken the lead in analyzing our registry data to explore the characteristics and experiences of SGM caregivers to better understand areas of intervention development.

Critical gaps remain as to how current definitions of families can be broadened to better reflect changes to family structures among SGM caregivers, how different relationship types affect caregiving dynamics, how caregiving and gender roles affect the type of care provided, and how discrimination may represent a barrier for SGM caregivers toward seeking the help and support the need. To that end, Dr. Dowling, Dr. Flatt, and I are co-principal investigators on an R01 award from the National Institute on Aging that aims to identify existing domains and develop new measures that accurately capture caregiving constructs and experiences of SGM caregivers. Through testing and validating, the Rainbows of Caring team will ensure these measures are inclusive and effective in portraying the unique challenges and experiences faced by SGM caregivers in the context of ADRD care. Dr. Dowling has taken the lead on a scoping review studying the state of the art on currently available measurement tools capturing the experiences and roles of family caregiving and defining the gaps not only in terms of constructs measured, but also in terms of generalizability to diverse family structures and experiences.

A secondary goal of the Rainbows of Caring project is to provide a website with an overview of all currently available tools (unidimensional and multidimensional) "validated" with a sample of ADRD caregivers covering the current range of caregiving constructs. The website will be made available to all researchers and clinicians is currently under construction (https://cdowling.test.wcer.wisc.edu/). This community-engaged outreach focus is spearheaded by Dr. Dowling.

Through her peer-reviewed publications, conference presentations, workshops, and media consultations, Dr. Dowling continues to increase awareness among family nurses and family health providers of the needs and experiences of SGM caregivers to expand family nursing theory, research, and practice.

Selected publications and presentations:

[†]Gleason, C.E., [†]**Dowling, N. M.**, [†]Kara, F., James, T., Manson, J.E., Naftolin, F., Pal, L., Santoro, N., Taylor, H.S., Harman, S.M., & Kantarci, K. (2024). Long-term cognitive effects of menopausal hormone therapy: Preliminary data from the KEEPS Continuation Study. *PloS Medicine*, e1004435. https://doi.org/10.1371/journal.pmed.1004435
[†]These authors contributed equally to this work.

Dowling, N.M., Johnson, S., & Nadareishvili, Z. (2024). Post-stroke cognitive impairment and the risk of recurrent stroke and death: A systematic review and meta-analysis. *Journal of American Heart Association*, 13(18), e033807. https://doi.org/10.1161/JAHA.123.033807

Klenczar-Castro, B., Kittle, K. R., Anderson, J. G., Wharton, W., Gilmore-Bykovskyi, A., **Dowling, N. M.**, Perales-Puchalt, J., & Flatt, J. D. (2024). Using concept mapping to identify recruitment and engagement strategies for inclusion of LGBTQIA+ populations in Alzheimer's disease and related dementia research. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 10(2), e12477. https://doi.org/10.1002/trc2.12477

Dowling, N. M., Johnson, S., Power, M.M., & Nadareishvili, Z. (2023). Post-stroke Cognitive Impairment and the Risk of Recurrent Stroke and Death: Systematic Review. Stroke, 54(Suppl_1), 101.

Tsoi, K. K. F, Jia, P., **Dowling, N. M.**, Titiner, J. R., Wagner, M., Capuano, A. W., & Donohue, M. C. (2023). Applications of artificial intelligence in dementia research. *Cambridge Prisms: Precision Medicine*, 1, e9. https://doi.org/10.1017/pcm.2022.10

Kittle, K. R., Lee, R., Pollock, K., Song, Y., Wharton, W., Anderson, J. G., **Dowling, N.M.**, & Flatt, J. D. (2022). Feasibility study of the Savvy Caregiver program for LGBTQ+ caregivers of people living with Alzheimer's disease and related dementias. *International Journal of Environmental Research and Public Health* 19(22), 15102. https://doi.org/10.3390/ijerph192215102.

Yu, K., Wild, K., **Dowling, N. M.**, Kaye, J. A., Silbert, L. C., & Dodge, H. H. (2022). Emotional characteristics of socially isolated older adults with MCI using tablet administered NIH toolbox: I-CONECT study. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 14(1), e12372. https://doi.org/10.1002/dad2.12372.

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