

Preface for the Special Issue of Neuromolecular Medicine in Memory of the Life and Legacy of William R. Markesbery, M.D.

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Mark Mattson and Jeff Keller, two former University of Kentucky (UK) faculty members, and I, still a UK faculty member, have co-edited this special issue of *NeuroMolecular Medicine* in honor of the life and legacy of William R. Markesbery, M.D. (Fig. 1). Dr. Markesbery, who was a Professor in the Departments of Neurology and Pathology and Director of the Sanders-Brown Center on Aging at the University of Kentucky and a pioneer in Alzheimer disease (AD) research, died on January 30, 2010 of complications of a lung infection. He was 78 years old.

Bill Markesbery's accomplishments in and devotion to AD research were enormous. That he was recognized in 2009 by the National Alzheimer's Association with the Zavan Khachaturian Award for Outstanding Achievements in Advancing Alzheimer's Science, and that he was named the 23rd most influential researcher in the world in the field of AD research (Sorensen 2009) are additional evidences that his peers in the AD research community tremendously valued his contributions to the better understanding of the molecular basis of AD. And, from my 35 years of deep friendship and collaboration with Bill, I can attest to the accuracy of the statement that Bill was always happy to be at the bench doing research (Fig. 2).

For the most part, the articles in this special issue of NMM center on three conjoined attributes that were prominent in Bill Markesbery. The first was his insight into molecular aspects of AD with emphasis on studies in human tissue. The second attribute was Bill's leadership in AD research, at the bench and bedside as well as service on

national boards and agencies that funded AD research. It is my opinion that his ideas often helped shift the paradigm thinking of AD. And the third attribute of Bill Markesbery brought out in the articles in this special issue of *NeuroMolecular Medicine* was the way he conducted his personal and professional life with grace, kindness, sensitivity, humility, and attentiveness to others. Example after example of personal reflections of Bill Markesbery's invaluable advice to colleagues and mentoring junior colleagues in AD research are given. While much of this mentoring was done at UK, I know of several cases where Bill's influence helped faculty at other institutions with their careers as well.

I sometimes had the privilege of being present when Bill was in his role of physician to patients with AD or MCI. He was incredibly patient, respectful, kind, and empathetic to both patients and family members. In other words, the attributes that researchers outline in their respective articles in this special issue of NMM were not just observed in Bill's role as AD researcher, but also as physician. It is, therefore, not so surprising that Dr. Markesbery was named as one of the 50 most positive physicians in the United States (Magee 1996).

I think it is a fair description to state that, generally speaking, most researchers in the field of AD research are strongly motivated and often highly competitive. Bill, who played on college and professional sports teams, had many of these same qualities, but he also had the personal character to channel these feelings into the greater good: not to pursue AD research to gain notoriety for himself, but to advance the field of research to help patients and their families with this terrible disease. With this goal in mind, Bill organized and recruited faculty to the Sanders-Brown Center on Aging who not only were outstanding scientists, but who also had the same vision Bill did of serving the greater good by one's research. As a result, the Sanders-Brown Center on Aging is one of the most respected

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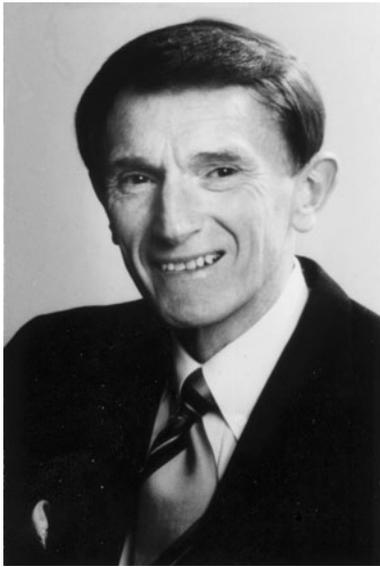


Fig. 1 William R. Markesbery, M.D.



Fig. 2 Bill Markesbery performing neuropathological research

institutions of age-related research in the world and is a living legacy to Bill Markesbery. In contrast to some institutions at which AD research is conducted, faculty at Sanders-Brown are highly collaborative, sharing insights, ideas, instruments, space, students, etc. These characteristics, I believe which emanated from Bill Markesbery, have contributed to the hugely successful Center of which Drs. Mattson, Keller, and I were or continue to be privileged to be a part. It is my view that Mark and Jeff have brought the same approaches they encountered at Sanders-Brown to their respective new institutions, Intramural Neuroscience at the National Institute on Aging and the Pennington Biomedical Research Center at Louisiana State University, respectively.

For me personally, I thoroughly enjoyed the intellectually stimulating discussions Bill and I had as we developed new research ideas to better understand the pathogenesis of this devastating dementing disorder. Though Bill was trained as a neurologist and neuropathologist, his insatiable desire to know more led him to reach out to others in fields different than his own. My training at the interface of chemistry and neuroscience was one such expertise to which Bill turned. Our interactions allowed Bill to teach me an enormous amount of neurology and pathology, and I could teach him aspects of neurochemistry, particularly those aspects dealing with free radical oxidative stress. Our UK Department of Chemistry thought so highly of Bill's chemistry credentials based on his productive collaborations with several of our faculty members, that we had Bill appointed to the Graduate Faculty of the Department of Chemistry at UK. I suspect that there are few neurologists and neuropathologists in the world that have faculty appointments in Chemistry departments, but Bill's desire to learn new methods and instrumentation to help him advance the field of AD research naturally drew him to faculty who dealt with these methods and instruments routinely.

I also enjoyed the discussions Bill and I had on numerous other topics, including University of Kentucky sports, about which Bill was also passionate.

It is these discussions on both science and sports and other topics and our close friendship that spanned several decades that I will miss most following Bill's death.

I commend to you, dear Reader, the articles in this special issue of *NeuroMolecular Medicine* on the life and legacy of Bill Markesbery, for, in my opinion, it is unlikely that there will ever be another thoroughly grounded person of the utmost skill and integrity combined with an extraordinary humility who has achieved international recognition for his research and clinical accomplishments as William R. Markesbery, M.D. Each of us can learn much from these articles. Enjoy the articles; emulate the man!

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