

Curing Age-Related Neurodegenerative Disease
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Abstract: Can we cure and prevent age-related neurodegenerative disease? Both animal research and human clinical trials on age-related CNS diseases have suffered from the lack of a unified systems model. One result has been the failure of animal studies to translate into successful human trials, as well as the uniform failure of clinical trials aimed at targets such as amyloid, tau, etc. A unified model of age-related CNS dysfunction needs to offer a framework for not only age-related human CNS diseases – including Alzheimer’s and other age-related human dementias -- but for age-related CNS dysfunction in animals as well. The model detailed here, focusing on cell senescence and the concomitant changes in gene expression, encompasses both human and animal disease and suggests a novel and technically feasible point of clinical intervention that has the potential to cure and prevent all age-related human neurodegenerative disease.

Biography: Dr. Fossel has an MD and a PhD in neurobiology from Stanford University where he taught neurobiology and research methods. A clinical professor of medicine, he is considered the world foremost expert on telomeres, aging, and age-related disease. He gave the first talk at the NIH on reversal of human aging, published the first articles on the potential of telomeres as a clinical intervention, and authored the only medical textbook in this field, *Cells, Aging, and Human Disease*, by Oxford University Press. He was editor-in-chief of *Rejuvenation Research* and the director of the *American Aging Association*, and as well as the Editor-in-Chief [OBM Geriatrics](#). He has authored more than 100 books, chapters, and articles, including [The Telomerase Revolution](#), which the *Wall Street Journal* praised as one of the best science books of the year. He is president [Telocyte](#), a biotech firm taking telomere therapy to FDA human trials, as well as author of “A Unified Model of Dementias and Age-Related Neurodegeneration”, published in [Alzheimer’s & Dementia: the Journal of the Alzheimer’s Association](#) in January of 2020, which has generated more than 1,000 reprint requests, as well as keynote requests and invitations to chair conferences on age-related dementias.