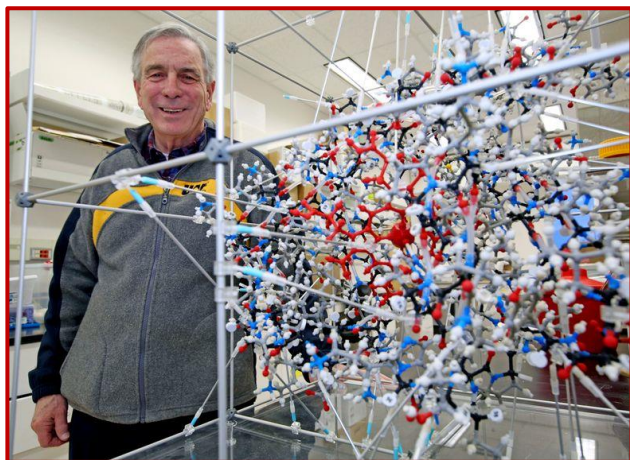


Dr. Larry Duffy, Professor, College of Natural Science and Mathematics, Department of Chemistry and Biochemistry, UAF.
[Publications](#)

Dr. Duffy is developing the research infrastructure to support intervention studies using canine cognitive dysfunction (CCD) as a natural model of Alzheimer's disease. CCD signs and symptoms share marked similarities to Alzheimer's disease. Presently there are no therapeutics to halt or reverse either disorder. This study will evaluate the effectiveness of a novel drug treatment by examining changes in dog behavior, sense of smell (anosmia), and volume in the brain's hippocampus area comparing measures at baseline and after 6 months of daily treatment. This project will utilize the Molecular Resonance Imaging (MRI) scanner in TRiM's HaMR Core facility to measure changes in hippocampus volume. The new drug has been demonstrated safe in dogs and aged humans, yet to be tested for efficacy to treat CCD in dogs or humans affected by Alzheimer's disease.

During his distinguished career, Dr. Duffy has conducted cutting-edge research in biochemistry, environmental chemistry, and neurochemistry. Dr. Duffy studied a variety of problems specific to life in the arctic, including the impacts from a changing climate on the arctic landscape for human and wildlife health. He actively contributes to projects using the sled dog model, research on brain aging, and toxicology research. Dr. Duffy has been recognized for his meritorious research and teaching at UAF including being named a fellow by the American Association for the Advancement of Science and received the UAF Carol Feist Outstanding Advisor Award, the UAF Award for Professional Achievement, the Usibelli Distinguished Research Award, the Sven Ebbesson Award for Neuroscience, the UAF Chancellor's Award for Diversity, and the American Chemical Society Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences, among other notable achievements.



In this Dec. 7, 2017 photo, Professor Duffy poses next to a myoglobin model in his lab in the UAF West Ridge Research Building. (Source: Eric Engman /Fairbanks Daily News-Miner via AP /

<https://www.seattletimes.com/nation-world/scientist-studies-health-problems-of-artic-living/>)