

## Jonathan R. Day, Neurobiology

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M.S. CSU Long Beach, 1978  
Ph.D. Univ. Delaware, 1983  
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### *Research Interests*

- Successful aging
- Brain-hormone interactions
- Learning and memory
- Diseases of the aging brain



### *Research Summary:*

Current demographic trends show an alarming increase in the age of the US population over the next 50 years. Estimates claim that 25% of all United States residents will soon be 65 years of age or older. The impact that age related diseases will have on our health care system will be catastrophic. My research focuses on the age related decline in cognitive function and age related diseases of the brain and central nervous system. I study nerve cells in the brain and in culture in order to understand how they communicate with each other. Molecular biology and classical neuroanatomical methods are used to examine several different aspects of cell to cell interactions in the developing and aging brain. The goal of this research is to learn how to maintain and strengthen cellular connections in the nervous system and thus, reduce the impact of disease and aging on brain function.

### *Recent Publications:*

Day, J.R., A.T. Frank, J.P.O'Callaghan, B.W. DeHart. 1998. Effects of microgravity and bone morphogenetic protein II on GFAP in rat brain. *J Applied Physiol* 85:716-722

Olson BA, J.R. Day, N.J. Laping. 1999. Age-related expression of renal thrombospondin-1 (TSP-1) mRNA in F344 rats: resemblance to diabetes-induced expression in obese Zucker rats. *Pharmacology* 58:200-208.

Han J, J.R. Day, K. Thompson, J.R. Conner, J.L. Beard. 2000. Iron deficiency alters H- and L- ferritin expression in rat brain. *Cell Mol Biol* (in press).