

## **Coleen T. Murphy**

Coleen T. Murphy is a Professor of Genomics and Molecular Biology at Princeton University. She graduated from the University of Houston with a B.S. in Biochemistry and Biophysics, then earned her doctorate in Biochemistry at Stanford University, studying the structure-function determinants of the motor protein myosin. Dr. Murphy became interested in applying new quantitative technologies to approach the question of aging during her postdoctoral work in Dr. Cynthia Kenyon's lab (UCSF), developing microarray approaches to identify the set of genes downstream of the insulin signaling/FOXO longevity pathway, revealing a vast array of downstream cellular processes, including stress response, proteostasis, metabolism, immunity, autophagy, and intercellular signaling, to extend cellular and organismal maintenance with age.

In her own lab, Dr. Murphy's team has developed *C. elegans* models of human "quality of life" aging phenotypes, such as cognitive aging and reproductive aging; these processes are remarkably well-conserved at the molecular level, and her group has identified genetic pathways that can extend these processes with age through the development of quantitative assays and genomic approaches to study these aging phenomena.