Ph.D. in the Biology of Aging

The Biology of Aging program provides education and training for graduate students interested in basic research that holds promise for practical applications to treat and prevent the diseases of aging.

The Biology of Aging program will provide graduate students with a unique curriculum designed to educate them in the basic biology of aging, thereby preparing them to thrive at a unique interface of bioscience and medicine. The program will encompass lectures and laboratory experience in molecular, cellular, and physiological mechanisms of aging.

Also covered will be theories of aging, genetic versus environmental impacts on aging rates, experimental paradigms of aging research, the biology of model organisms, demographic analysis of aging, comparative and evolutionary biology of aging, pathobiology of selected organ systems, and recent advances in genetic and environmental treatments that extend life and prevent disease.

The special requirements for the program on Aging will include,

1) taking the course on the Biology of Aging as an elective,
2) attending the Aging journal club after year one, and
3) attending the Aging Seminar Series.

Additional Program and Application Information

Biology of Aging is one of the disciplines within the Integrated Biomedical Sciences Graduate Program at the Graduate School of Biomedical Sciences at the University of Texas Health Science Center San Antonio. Each discipline defines a specific set of training requirements for the Ph.D. degree. Students apply to and are accepted by the Integrated Program. During their first semester, they take a unified course in Fundamentals of Biomedical Science while doing short research projects in laboratories of several faculty chosen from the six disciplines. They then choose a supervising professor and a corresponding discipline with which to complete their training.

Additional information about the Biology of Aging Discipline may be found here:

http://barshopinstitute.uthscsa.edu/main/graduate/biologyofaging

or by contacting program leader,

Suzette Tardif, Ph.D.
tardif@uthscsa.edu

Applications are accepted through the Integrated Biomedical Sciences Graduate Program of the Graduate School of Biomedical Sciences:

http://gsbs.uthscsa.edu

http://barshopinstitute.uthscsa.edu/main/graduate/biologyofaging
Why Study Aging?

By the year 2040, over 20% of the population will be over the age of 65. The health issues of the elderly population are becoming increasingly important as this growth continues. Age-related diseases are becoming the leading health challenge in our nation today. The goal of aging and longevity studies is to improve and extend the quality of life for our aging population. Discoveries in aging research are needed to ensure our citizens enjoy good health later in life.

Leading the Future of Healthy Aging Research

The Barshop Institute for Longevity and Aging Studies is a basic and clinical research institute located on the Texas Research Park Campus of the University of Texas Health Science Center at San Antonio.

Life in San Antonio, TX

San Antonio is a historic and naturally diverse city with a population of more than 1.3 million. The cost of living in San Antonio is lower than in many parts of Texas and the United States. With our beautiful climate - warm, dry summers and mild winters, the city attracts people who really enjoy the outdoors.

Current Students’ Research Interests:

- Role of mitochondrial dysfunction in aging
- Cellular reprogramming
- Neurobiology of aging
- Neurodegeneration and neuromuscular dysfunction
- Mechanisms behind aging and cancer
- Caloric restriction and dietary intervention

NIA Training Program in the Biology of Aging

The Biology of Aging Training Program includes the departments of the Graduate School of Biomedical Sciences as well as the Dental and Medical Schools of the UT Health Science Center. This program provides stipends and training to pre- and postdoctoral fellows who are interested in basic research that holds promise for practical application towards lifespan intervention.

San Antonio Nathan Shock Center of Excellence in the Basic Biology of Aging

The San Antonio Nathan Shock Center is a national resource that provides a state-of-the-art scientific infrastructure and services used in the development and study of rodent models to address questions about the basic biological mechanisms of aging.

Cores within the Nathan Shock Center:
Aging Animal and Longevity Assessment Core Research Development Core
Healthspan and Functional Assessment Core Emerging Animal Models Core Pathology Core

Visit Us On The Web At: http://barshopinstitute.uthscsa.edu/main/graduate/biologyofaging