Executive Summary

Dog Aging Project
Longer, healthier lives. Together.

The Dog Aging Project is an innovative initiative that brings together a community of dogs, owners, veterinarians, researchers, and volunteers to carry out the most ambitious canine health study in the world. Our work is centered on two fundamental goals: understanding how genes, lifestyle, and environment influence aging and intervening to increase healthspan, the period of life spent free from disease.

As of November 2026, the **Dog Aging Project (DAP) Pack** includes over 55,000 enrolled companion dogs. Each dog owner completes extensive surveys about the health and life experiences of their dog through a secure research portal. These surveys are updated annually for the entirety of the dog's life, and these data are augmented by veterinary electronic medical records when possible. For each dog, these data are matched with comprehensive environmental data. From this research cohort, we invite some dogs to join one of our additional, nested cohorts.

The **Foundation Cohort** includes 7000 dogs of all ages, sizes, and genetic backgrounds. Each participant received a DNA Kit with which to collect a cheek swab sample for low-pass sequencing. Genome sequence data are being integrated with health measures and age-related physiological and behavioral traits to carry out comprehensive genome-wide association studies of common diseases, frailty, and multimorbidity associated with age.

The **Precision Cohort** consists of almost 1,000 dogs from whom we collect saliva, blood, urine, fecal, and hair samples annually for in-depth, multi-omic assays. Our goals are to identify metabolomic predictors of disease and longevity, to understand how the microbiome changes with age and how these changes in microbiome diversity impact healthy aging, and to develop an "epigenetic clock" for dogs that predicts biological age.

The **Centenarian Cohort** will includes 300 dogs in the oldest 0.1% of their size class for whom we will conduct targeted genomic sequencing. Data from this cohort will help us identify gene variants that confer especially long and healthy lives.

The **TRIAD Cohort** will include 580 dogs participating in the *Test of Rapamycin In Aging Dogs* (TRIAD) trial, a double-blind, placebo-controlled clinical trial of the mTOR inhibitor rapamycin, which at low doses has been shown to extend lifespan in laboratory animals. This is the third and largest trial of rapamycin that our group has conducted to date.

The Dog Aging Project is an open science project. We consider the data we collect a public good, and make them available to researchers around the world via Terra, a cloud computing platform hosted by the Broad Institute of MIT and Harvard. In addition, biological samples are banked at the Dog Aging Project Biobank housed at the Cornell University Veterinary Biobank. The project is supported by a U19 grant from the National Institute on Aging (MPI: Daniel Promislow and Kate Creevy).

Scientific Leadership of the Dog Aging Project



Dr. Daniel Promislow, DPhil
Principal Investigator of the Dog Aging Project
Dr. Promislow is a Senior Scientist and Scientific Advisor, at the Human Nutrition Research Center on Aging (HNRCA) at Tufts University. He uses genetics and systems biology approaches to understand how and why patterns of aging vary among individuals. He began studying aging in dogs in 2007, when he met Dr. Kate Creevy, now the Dog Aging Project Chief Veterinary Officer.
(Email: promislo@wu.edu)



Dr. Kate Creevy, DVM, MS, DACVIM
Principal Investigator and Chief Veterinary Officer of the Dog Aging Project
Dr. Creevy is a Professor of Small Animal Internal Medicine at the College of Veterinary Medicine & Biomedical Sciences at Texas A&M University. Through the Dog Aging Project, she intends to establish standards to better describe aging and improve healthy aging in companion animal practice, to translate these fundings to human health research , and to inspire young people to engage with science by learning from their cherished canine companions.
(Email: kcreevy@tamu.edu)

Key Members of the Research Team

Dr. Josh Akey, PhD, is a Professor of Genome Sciences at Princeton University. He studies the evolutionary forces that shape genomic variation within and between species and the genetic architecture and evolution of complex, quantitative, and high-dimensional molecular phenotypes.

Dr. Anne Avery, VMD, PhD, is the Director of the Clinical Hematopathology Laboratory at Colorado State University, where she studies the molecular and functional characteristics of lymphoma and leukemia, and the intersection between inflammatory and neoplastic conditions. While providing a clinical service, her research focuses on comparisons between veterinary diseases and human counterparts.

Dr. Rozalyn Anderson, PhD, is a Professor of Medicine in the Division of Geriatrics and Gerontology at the University of Wisconsin School of Medicine and Public Health. Her research focuses on the molecular and cellular mechanisms of aging and delayed aging by caloric restriction.

Dr. Elhanan Borenstein, PhD, is a Professor at Tel-Aviv University. Elhanan integrates microbiome data with methods inspired by systems biology, network theory, machine-learning, and statistics to study the microbiome. The long-term goal of his work is to provide a better understanding of the microbiome and its role in health and disease.

Dr. Marta Castelhano, DVM, MVSc, is the Director of the Cornell Veterinary Biobank and an expert in sustainable, high-quality biobanking and medical genetics. Marta manages the collections and allocation of samples for ongoing and future research projects.

Dr. Weihsueh Chiu, PhD, is a Professor in the department of Veterinary Physiology and Pharmacology at Texas A&M University, where he uses quantitative, data-driven approaches to understand and to predict the health effects of environmental chemicals and other exposures.

Dr. Candice Chu, DVM, is an Assistant Professor of Clinical Pathology in the department of Veterinary Pathobiology at Texas A&M University, where her research focuses on integrating bioinformatics, AI in veterinary medicine, and digital cytology.

Dr. Laura Corlin, PhD, is an Associate Professor in Public Health and Community Medicine at Tufts University. She is an environmental epidemiologist who develops and applies cutting-edge epidemiological and exposure assessment methods to characterize and mitigate the health effects of exposure to environmental toxicants among vulnerable populations.

Dr. Matthew Dunbar, PhD, is the Science Lead and a spatial research scientist at the Center for Studies in Demography and Ecology (CSDE) at the University of Washington. A member of CSDE's Methods and Data Core, he leads the development of research infrastructure for spatial analysis.

Dr. Virginia Fajt, DVM, PhD, DACVP, is a Clinical Professor in the Department of Veterinary Physiology and Pharmacology at Texas A&M University College of Veterinary Medicine and Biomedical Sciences. She is a veterinary pharmacologist interested in promoting evidence-based veterinary medicine and critical appraisal of evidence.

Dr. Ben Harrison, PhD, is a Senior Scientist in the Department of Anesthesiology and Pain Medicine at the University of Washington, where he studies the genetic and molecular architecture of complex traits.

Dr. Jessica Hoffman, PhD, is an Assistant Professor in the Department of Biological Sciences at Augusta University whose research is focused on understanding the genetic, metabolic, and environmental factors that influence aging and longevity across species, combining molecular biology, organismal phenotyping, and large data 'omics' analyses.

Dr. Lucas Hoffman, MD, PhD, is a clinician scientist and Professor of Pediatrics at the University of Washington who studies chronic infections in children, with an emphasis on how the GI microbiota impact early growth and nutrition.

Dr. Matt Kaeberlein, PhD (Co-Founder) is the Chief Science Officer at Optispan Geroscience and was formerly a Professor at the University of Washington for 20 years, where he led the Healthy Aging and Longevity Research Institute. With Daniel and Katee, Matt founded the Dog Aging Project; now as a consultant to the project, he provides expertise on the biology of aging, with a particular focus on evolutionarily conserved mechanisms and translational applications.

Dr. Elinor Karlsson, PhD, is an Assistant Professor of Bioinformatics and Integrative Biology at the University of Massachusetts Medical School, and Director of Vertebrate Genomics at the Broad Institute of MIT and Harvard. Dr. Karlsson leads the Darwin's Dogs project and is also co-PI of the 200 Mammals Genome Project.

Dr. Kathleen Kerr, PhD, is a Professor of Biostatistics at University of Washington. She directs the Bioinformatics and Biostatistics Unit of the UW Interdisciplinary Center for Exposures, Diseases, Genetics and Environment. Her methodological research concerns the evaluation of biomarkers and risk prediction models.

Dr. Evan MacLean, PhD, is an Assistant Professor at the University of Arizona and Director of the Arizona Canine Cognition Center. He conducts research on animal cognition and cognitive evolution with a primary focus on work with canids.

Dr. May Reed, MD, FACP is an Associate Professor of Medicine in the Division of Geriatrics and Gerontology at the University of Washington School of Medicine. Her clinical research interests are in assessments of geriatrics syndromes and frailty.

Dr. Noah Snyder-Mackler, PhD, is an Assistant Professor in the School of Life Sciences and the Center for Evolution and Medicine at Arizona State University and co-director of the Simien Mountains Gelada Research Project. He is an expert in the molecular sequelae of aging and how the environment can modify the aging process.

Dr. Heather Stapleton, PhD, is an environmental chemist and exposure scientist in the Nicholas School of the Environment at Duke University whose research focuses on identification of halogenated and organophosphate chemicals in the built environment, and estimation of human exposure.

Dr. Katherine Tolbert, DVM, PhD, DACVIM, is a Clinical Associate Professor of Medicine, Small Animal Clinical Science at the Texas A&M University College of Veterinary Medicine. Her research program is focused on small animal gastroenterology, characterizing pathogenic mechanisms and exploring novel therapies for GI infections in dogs and cats.