



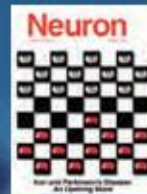
Buck

**Discoveries and
Achievements**



Discoveries and Achievements 1999–2018

2003 Dr. Julie Andersen links iron to Parkinson's disease in the cover story of the journal *Neuron*.



2006 The Institute's first capital campaign concludes with the establishment of the Larry L. Hillblom Center for Integrative Studies of Aging.



September 30, 1999
The Buck Institute officially opens its doors.



2003 The Institute's auditorium is named for Trustee Fred Drexler in honor of his \$3 million gift to the Institute.



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2000 Dr. Simon Melov and Dr. Gordon Lithgow report the first successful use of a drug-like compound to extend lifespan in an animal. The study is published in *Science*.



2006 In results published in *The Proceedings of the National Academy of Sciences*, the Bredesen lab genetically engineers "Alzheimer's" mice that have normal memory despite the presence of amyloid plaques in their brains.

2006 The Institute's first patent is awarded to Dale Bredesen, MD, and others for "Modulators of Paraptosis and Related Methods."



2006 Christopher Benz, MD, in partnership with the Marin Department of Health and Human Services, helps launch the Marin Women's Study.

2007 In a study published in *PLoS One*, the Melov lab shows that strength training reverses aging in human skeletal muscle.

2007 A grant of \$4.1 million from the California Institute for Regenerative Medicine (CIRM) establishes a shared research laboratory for stem cell technology at the Institute.



2009 Publishing in *Cell*, Dr. Pankaj Kapahi shows that a low-protein "anti-Atkins" diet extends lifespan in fruit flies

2009 In a study published in *Nature Cell Biology*, Dr. Judy Campisi establishes the basis for research on "inflammaging" by showing that DNA-damaged cells communicate with neighboring cells.



2012 Board member Arthur Gensler, Jr. and his wife, Dru, donate \$5 million to the Buck. The Institute's administrative building is renamed in their honor.



2013 The Institute opens its new Learning Center. Its mission is to foster young scientists and encourage life-long science education.

2012 The Ellerby lab in *Cell Stem Cell* announces genetic correction of Huntington's disease in human cells paving the way for cell replacement therapy.

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2007 A \$25 million "Roadmap" award from the NIH establishes a new field of research called "geroscience," which will focus on the intersection of aging and chronic disease. The Buck's award is one of only nine granted in the country

2008 CIRM awards the Buck Institute \$20.5 million in seed money to build a new facility for stem cell research.



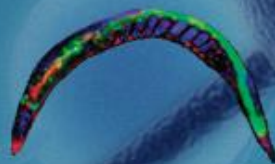
2011 Publishing in *Nature*, the Lithgow lab reveals that a common laboratory dye profoundly extends lifespan and slows the disease process in nematode worms with Alzheimer's-like pathology.



2012 The Institute spins off its first company, Delos Pharmaceuticals, Inc.



2013 The Melov and Kennedy labs publish research in *Aging Cell* that shows the drug rapamycin reverses heart disease in elderly mice.



2012 The Buck opens its second research building on April 14. More than 1,000 people attend an open house celebrating the new Regenerative Medicine Research Center.

2014 The Buck Institute and the University of Southern California collaborate to launch the nation's first PhD program in the Biology of Aging.

2015 The Buck partners with Calico to develop the science of aging therapeutics



2017 New STEAM initiative results in teacher training and curriculum development at the Buck.

→ Adding world class translation and clinical capacity to world class discovery research

→ Raising \$250M



2016 Board of Trustees raise \$11.5 million to support new leadership and growth.

2017 Big data brings precision to breast cancer diagnosis and care published by the Benz lab in *JAMA Oncology*

HELPING PEOPLE LIVE BETTER LONGER

2015

2016

2017

2018

2019

2020

2021

2016 Publishing in *Science*, the Lamba and Jasper labs harness an innate repair mechanism that enhances the success of retinal transplantation in blind mice.



2017 The Verdin lab shows that a ketogenic diet protects memory in aging mice. The study published in *Cell Metabolism*.



2017 The Buck partners with Astellas Pharmaceuticals to develop drugs that target cell senescence



→ Completing campus to accomplish original vision

2017 Work from the Lithgow and Kennedy labs spins out a new company, PDL Pharmaceuticals



2016 Unity Biotechnology, co-founded by Dr. Judy Campisi, incubates at the Buck. The company develops drugs to address cellular senescence, a major driver of age-related disease.



UNITY