

# Theodore C. Goldsmith



Theodore C. Goldsmith graduated from the Massachusetts Institute of Technology with a BSEE degree in 1962.

He has worked extensively in the aerospace industry especially at the NASA Goddard Space Flight Center in Maryland. One of his main roles was in development of digital data handling equipment for use on scientific spacecraft for handling data from astrophysics, aeronomy, and other scientific instruments. Eventually he became Project Manager for the Space Shuttle Small Payloads Project, responsible for managing development, testing, integration, and flight operations of smaller scientific instruments on the Space Shuttle. Awards include NASA Exceptional Service Medals.

He has also worked for the National Institutes of Health in Maryland developing instrumentation for use in medical science experiments.

Since 1999 Goldsmith has worked as an independent researcher in the gerontology field. His specific area of interest concerns the nature of digital information transfer as it applies to biological inheritance and the impact of this nature on evolution theories and theories of biological aging. He is now one of the leading proponents of the idea that aging is caused by complex biological mechanisms that exist because aging serves an evolutionary purpose.

## Websites

**Aging Info** <https://azinet.com/aging/>

**Aging Theories Blog** <https://aging-theories.org>

**Programmed Aging Theory Info** <http://programmed-aging.org>

## Some Publications by Theodore C. Goldsmith

**Anti-Aging Medicine: How We Can Extend Lifespan and Live Longer and Healthier Lives**  
Azinet Press ISBN 0978870964 2020

**The Evolution of Aging 3rd ed.** Azinet Press ISBN: 0978879856 2014

**Aging, evolvability, and the individual benefit requirement.** 2008. *Journal of Theoretical Biology*. doi.10.1016/j.jtbi.2008.02.235 PMID: 14962645

**Mammal aging: active and passive mechanisms and their medical implications.** *Journal of Bioscience Hypotheses*. doi: 10.1016/j.bihy.2008.12.002

**Aging as an evolved characteristic - Weismann's theory reconsidered.** 2004. *Journal of Medical Hypotheses*. 62 (2)304-308 PMID: 14962645

**Evolvability and programmed aging: a reply to de Grey. 2008. Rejuvenation Research.11(4) 847-8 PMID: 18729818**

**Evolution controversies and the theory of aging. 2009**

**The case for programmed mammal aging. 2009. Mendeleev Russian Chemical Journal. DOI: 10.1134/S107036321007039X. Invited paper.**

**Rationale for complex programmed life span regulation in mammals. 2010. Invited paper Homo Sapiens Liberatus Workshop, Moscow May 2010**

**An Introduction to Biological Aging Theory 2nd ed. 2014. ISBN: 0-9788709-1-3.**

**Aging by Design. 2011. ISBN: 0-9788709-3-X.**

**On the programmed/ non-programmed aging controversy. Biochemistry (Moscow) Phenoptosis 77-7 2012 PMID: 22817536**

**Arguments Against Non-Programmed Aging Theories. 2013. Biochemistry (Moscow) Phenoptosis 78-9 PMID: 24228918**

**Aging Theories and the Zero-Sum Game. 2014 Guest Editorial Rejuvenation Research 17(1):1-2 PMID: 24438180**

**Modern evolutionary mechanics and resolving the programmed/ non-programmed aging controversy. 2014. Biochemistry (Moscow) 79-10. PMID: 25519063**

**Solving the programmed/ non-programmed aging conundrum. 2015 Current Aging Science. 8-1, PMID: 26054346.**

**Is the Evolutionary Programmed/ Non-Programmed Aging Argument Moot? Current Aging Science. 8-1, PMID: 26054347.**

**Emerging Programmed Aging Mechanisms and their Medical Implications. Medical Hypotheses 2015 doi: 10.1016/j.mehy.2015.10.015. PMID: 26547271**

**Programmed Aging and the Intelligent Design Effect. 2015**

**Anti-Aging Medicine in 2016**

**The evolution of aging theories: why modern programmed aging concepts are transforming medical research. Biochemistry (Moscow) 81:12 2016 PMID: 28259118**

**Aging is programmed! (A response to Kowald-Kirkwood "Can aging be programmed? A critical literature review") 2016**

**Evolvability, population benefit, and the evolution of programmed aging in mammals Biochemistry (Mosc) 82:12 2017**

**Externally Regulated Programmed Aging and the Effects of Population Stress on Mammal Lifespan Biochemistry (Mosc) 82:12 2017**

**Digital genetics, variation, evolvability, and the evolution of programmed aging.**  
**Biochemistry (Moscow) 84 12 1792-1800 doi:10.1134/S0006297919120046 2019 PMID:**  
**31870249**

## **Contributing Author**

**Gu D., DuPre M. (Eds) (2020) Encyclopedia of Gerontology and Population Aging.**  
**Springer Cham ISBN 978-3-319-69892-2. Biogerontology-General. G. Libertini (Ed)**  
**Goldsmith T. Evolvability Theory of Aging DOI: 10.1007/978-3- 319-69892-2\_43-1**  
**Goldsmith T. Timeline of Aging Research DOI: 10.1007/978-3- 319-69892-2\_60-1**

**Bouchard D. (Ed). Exercise and Physical Activity for Older Adults. Human Kinetics**  
**Champaign. ISBN: 9781492572909 2020**  
**Goldsmith T. Chapter 2: Aging Theories**