



Photo Courtesy of Eric Swanson

Primary Connections:

- OCT News: Founder, 2007-present
- Massachusetts Institute of Technology: Research Affiliate, 2004-present
- Acacia Communications Inc. (Nasdaq IPO 2016): Co-founder and Chairman of Board, 2009-18
- Sycamore Networks (Nasdaq IPO 2001): Co-founder, Vice President, General Manager and Chief Scientist, 1998-2004
- LightLab Imaging (acquired by St. Jude Medical in 2010 and Abbott Laboratories in 2016): Co-founder, Vice President and CTO, 1998-2002
- Advanced Ophthalmic Devices (acquired by Zeiss): Co-founder, 1992-94
- MIT Lincoln Laboratory: Associate Group Leader, 1984-98

Education:

- University of Massachusetts Amherst: B.S., Electrical Engineering and Computer Science, 1982 (Summa Cum Laude)
- Massachusetts Institute of Technology: M.S., Electrical Engineering and Computer Science, 1984

Key Memberships/Awards:

- Lasker-DeBakey Clinical Medical Research Award, 2023
- National Medal of Technology and Innovation, 2023
- NAE Russ Prize, 2017
- Champalimaud Vision Award, 2012

Eric Swanson

Optical Coherence Tomography (OCT)

U.S. PATENT NO. 5,321,501: Method and apparatus for optical imaging with means for controlling the longitudinal range of the sample

U.S. PATENT NO. 5,459,570: Method and apparatus for performing optical measurements

Inducted in 2025 Born: Sept. 16, 1960

Eric Swanson, James Fujimoto and David Huang invented optical coherence tomography (OCT), a groundbreaking method for imaging the internal structures of body tissue in exceptional detail. Revolutionizing ophthalmology, OCT is especially useful for quickly, painlessly examining the retina. This technology also is used in cardiology and across a growing number of wide-ranging applications.



Full Bio: <https://www.invent.org/inductees/eric-swanson>

Things You Should Know:

- Swanson was born in 1960 in Quincy, Massachusetts.
- In 1970, his family moved to Alaska when his father accepted a position as a professor of business and economics at the University of Alaska Fairbanks. "The move to Alaska was an adventure and helped create my passion for nature and the outdoors," he said.
- From an early age, Swanson was interested in electronics, and his mother consistently encouraged his curiosity and exploration.
- He has served in a variety of technical and managerial roles in academic, entrepreneurial, industrial, federally funded research and development centers (FFRDCs), government and nonprofit organizations.
- Swanson performed research and development at Massachusetts Institute of Technology Lincoln Laboratory for 16 years, working on advanced technologies for national security needs including inter-satellite laser communication and high-speed fiber-optic networks.
- He is a serial entrepreneur co-founding Advanced Ophthalmic Devices (Acquired), LightLab Imaging (Acquired), Sycamore Networks (Nasdaq IPO), Curata Inc., and Acacia Communications Inc. (Nasdaq IPO).
- Swanson has received honors including the 2012 Champalimaud Vision Award, the 2017 Russ Prize, the 2022 National Medal of Technology and Innovation, and the 2023 Lasker-DeBakey Clinical Medical Research Award, each of which he shared with Fujimoto and Huang.
- He is a fellow of IEEE and Optica.
- Swanson has 64 U.S. patents.