UNIVERSITY OF WASHINGTON October 19, 2003
SCHOOL OF MEDICINE CURRICULUM VITA *see also* faculty.washington.edu/wcalvin

WILLIAM H. CALVIN, PH.D.
born Kansas City, Missouri, 30 April 1939

EDUCATION AND POSITIONS

1957-1960	Northwestern University, Department of Physics (B.A., 1961)
1961	Graduate Teaching Assistant, Department of Physics, Northwestern University.
1961-1962	Graduate Research Assistant, Communications Biophysics, Massachusetts Institute of Technology.
1962	Visiting Graduate Student, Harvard Medical School.
1962-1966	Predoctoral fellow, University of Washington, Department of Physiology and Biophysics (thesis advisor: Charles F. Stevens). PH.D., 1966.
1967-1974	Research Instructor through Assistant Professor, University of Washington, Departments of Neurological Surgery and of Physiology/Biophysics.
1974-1986	Associate Professor of Neurological Surgery, University of Washington School of Medicine.
1976-1986	Affiliate, UW Child Development and Mental Retardation Center.
1978-1979	Visiting Professor of Neurobiology, The Hebrew University of Jerusalem (and Senior International Fellow, NIH Fogarty Center).
1987	Lecturer in Zoology, University of Washington
1985-1990	Affiliate Associate Professor of Biology, University of Washington, College of Arts and Sciences
1992-98	Affiliate Associate Professor of Psychiatry and Behavioral Sciences, University of Washington School of Medicine
1998-	Affiliate Faculty, Living Links Center, Emory University
1998-	Affiliate Professor of Psychiatry and Behavioral Sciences, University of Washington School of Medicine

HONORS AND SOCIETIES

Phi Beta Kappa Book Award for Science (2002). Departmental Honors in Physics (with B.A., 1961); Program Committee, Society for Neuroscience (1975-78); Program and/or Organizing Committee, Winter Conference on Brain Research (1975-1984); formerly on Editorial Board, *Journal for Theoretical Neurobiology, Journal of Electrophysiological Techniques*. Member or past* elected member of American Physiological Society*, Biophysical Society*, International Association for the Study of Pain*, International Brain Research Organization, Society for Neuroscience, New York Academy of Sciences, International Society for Human Ethology, AAAS, IEEE*, Language Origins Society, American Association of Physical Anthropologists, American Anthropological Association*, International Astronomical Union, American Psychological Society (Fellow, 1998), Association for the Advancement of Philosophy and Psychiatry*, American Geophysical Union, Society for American Archaeology. Member, Board of Advisors & Kistler Prize Advisory Panel, Foundation for the Future.

TEACHING and UNIVERSITY COMMITTEES

Having stayed off the payroll since the mid-1980s, this is all quite out of date; when I was on the payroll, I was largely on soft money from NIH. I have continued to frequently give research talks, or guest lectures in a course, usually in other departments. In Autumn 2000, I taught a week of a course on the evolution of musical abilities in the School of Music, in Winter 2001 a week of the honors physics seminar, and in Spring 2001 I taught a week of a graduate geophysics seminar on abrupt climate change in the Department of Earth Sciences.

I taught introductory courses and advanced seminars in the Department of Physiology and Biophysics between 1967-73, ran the departmental seminar series in Neurological Surgery 1969-77, taught Biology 100 in 1983, taught Natural Sciences 222 in the College of Arts and Sciences honors program 1984-1985, and advanced physiology courses in Zoology 1986-87.

In the early 1970s, I served on the human subjects committee for several years, in the Faculty Senate, and on the University Council on Facilities and Services.

RESEARCH FUNDING

I had NIH grant support continuously from 1967 until the early 1980s, when I began taking leaves of absence for book writing; I have not even applied for support since then. Royalties have sufficed to support my research in theoretical neurophysiology (my 1996 book, *The Cerebral Code*, is essentially a research monograph, as is *Lingua ex Machina*).

I study the recurrent excitatory circuitry of the superficial layers of mammalian neocortex; in particular, I am interested in how it can 1) support a Darwinian process for bootstrapping quality when engaging in novel actions, and 2) how it can support an "audit trail" for structured sentences and a forwards-leaping train of inference. Pathophysiologies (epilepsy and mental disorders) have been a major interest, as global brain theories must not only explain capabilities but characteristic malfunctions. I spend as much time on basic research as most professors; writing books is my substitute for teaching income.

In 1997, I was awarded a one-month residency at the Rockefeller Foundation's Bellagio Study Center to aid in writing the *Lingua ex Machina* book with Derek Bickerton (MIT Press, 2000). In 2000 and in 2001, I received a residency at the University of Washington's Whiteley Center at the Friday Harbor Laboratories, in aid of writing *A Brain for All Seasons*, which received the Phi Beta Kappa book prize for science in 2002.

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a) Refereed Journals

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CALVIN, W.H. (1968). Evaluating membrane potential and spike patterns by experimenter-controlled computer displays. *Experimental Neurology* 21:512-534.

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KJERULF, T. D., O'NEAL, J. T., CALVIN, W. H., LOESER, J. D., WESTRUM, L.E. (1973). Deafferentation effects in lateral cuneate nucleus of the cat: correlation of structural alterations with firing pattern changes. *Experimental Neurology* 39: 86-102.

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c) Books

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d) **Other Publications**

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e) **Manuscripts**

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f) **Abstracts** (1965-1977 omitted)

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"What creativity in science and art tell us about how the brain must work," an invited lecture for the Vrije Universiteit Brussel 25th anniversary celebration, *Einstein meets Magritte: an international reflection on science, nature, human action, and society*, 1995.