

BIOGRAPHICAL SKETCH

NAME Halberg, Franz (07.05.1919 / 06.09.2013)	POSITION TITLE Professor and Director, Chronobiology Center
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EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
University of Cluj, Romania		1936-37	Math., Physics
University of Cluj, Romania	M.D.	1943	Medicine
Harvard Medical School, Boston, MA, USA	Fellow	1948-49	Medicine

RESEARCH AND PROFESSIONAL EXPERIENCE:

Scientific assistant (Wissenschaftlicher Assistent) and later university assistant (Universitäts-Assistent), Department of Anatomy, University of Innsbruck, Austria (1946-1948)

Research Fellow, Harvard Medical School; Assistant in Medicine, Peter Bent Brigham Hospital, Boston, MA (1948-1949)

On the staff of the University of Minnesota Medical School since 1949: Fellow (1949); Instructor (1950); Research Associate and Assistant Professor in Physiology (1951-1954); Assistant Professor, then Associate Professor in Division of Cancer Biology (1954-1958); Elsa A. Pardee Professor of Cancer Biology and Experimental Pathology (1958-1962)

Director of Research, Cambridge State School and Hospital, Cambridge, Minnesota (1950-1962)

Co-Director, Halberg Chronobiology Center, University of Minnesota; former periodicity analysis laboratories officially affiliated at various times with the University of L'Aquila, L'Aquila, Italy; René Descartes University, Paris, France (under the presidency of Florian Delbarre); and Faculty of Computer Science, Autonomous University, Madrid, Spain

Career Award Professor of Laboratory Medicine and Pathology, University of Minnesota (from 1962)

Professor of Physiology and Biology, Graduate School, University of Minnesota (from 1962)

Professor of Oral Medicine and Bioengineering, Graduate School, University of Minnesota (from 1988)

Coordinator of an international project on The Biosphere and the Cosmos (BIOCOS), mapping spectra of variables in and around us, currently in 23 countries

HONORS: *Academician*, International Academy of Science (2006); Leibniz Society (former Prussian, later GDR Academy of Science) (2000), French National Acad. of Medicine, Paris, France (1990); Spanish Acad. of Veterinary Science, Madrid, Spain (1987); *Honorary Member*, Romanian Nat. Acad. Med. Sci. (1995); *Hon. Doctorate*, People's Friendship Univ. of Russia, Moscow (2005); University of L'Aquila, Italy (2004); Masaryk Univ., Brno, Czech Republic (2000); Medical Institute, Tyumen, Russia (1996), Univ. of Ferrara, Italy (1992); Univ. of Montpellier, Montpellier, France (1980); World Health Organization Fellowship (1948-1949); *Hon. Professor*, Univs. of Paris, France, & L'Aquila, Italy; Technological Univ. of Madrid, Spain; Chengdu Coll. of Traditional Chinese Medicine & West China Coll. of Medical Sciences, Chengdu, China; Provincial Acad. of Traditional Chinese Medicine and Pharmacology, Xi'an, China; *Hon. Fellow*, International College of Nutrition; *Hon. Memberships*, Italian Soc. for Chronobiology, Indian Soc. for Chronobiology, Galician Soc. for Chronobiology, Alaska Medical Assn., Soc. Medica de la Plata (Argentina), Galician Pediatric Soc.; *Medals:* Univ. of Montpellier, France; René Descartes Univ., Paris, France; Univs. of Krakow, Poland; Ferrara, Italy; Szeged, Hungary; Santiago de Compostela, Spain; Masaryk Univ., Brno, Czech Republic (Medal of Medicine; All-Univ. Medal); Therapeutic Society of Moscow, Theodor Hellbrügge Foundation (Arnold Lucius Gesell Prize); World Organization for Scientific Cooperation "Science Without Borders"; *Diplomas:* Schmidt Institute of the Physics of the Earth, Moscow, Russia; Network of Young Doctors and Health Administrators, Moscow, Russia; Masaryk University, Brno, Czech Republic; International Council for Scientific Development, International Academy of Science (Health and Ecology), Innsbruck, Austria/Taipei, Taiwan; *Dedicatee:* on the occasion of his 90th birthday, July 5, 2009, of first two issues of the journal Geophysical Processes and Biosphere

SOCIETIES AND FUNCTIONS: *Past:* *President emeritus*, International Society for the Study of Biological Rhythms, (renamed) International Society for Chronobiology; *Vice-President (chief U.S. officer)*, Intl. Soc. for Research on Civilization Diseases and the Environment; *Director*, Integrated Res. Program on Chronobiology, Intl. Biologic

Program, U.S. Section, & **Member**, Program Coordinating Committee, U.S.-IBP; **Member**, U.S. President's Biomedical Research Panel, Neurosciences Cluster; **Consultant**, National Heart, Lung and Blood Inst., Bethesda, MD; **Consultant**, Sloan-Kettering Inst. for Cancer Res. and Memorial Hospital, New York, NY; **Consultant**, NASA, Life Science, Moffett Field, California; **Chairman**, Intl. Commission on Nomenclature in the field of physiologic periodicity; **Member**, Glossary Committee, Intl. Union of Physiological Sciences; **Editor-in-Chief**, Chronobiologia (1974-1994); **Editor**, International J. of Chronobiology (1973-1984); **Editorial Board**, Rassegna di Neurologia Vegetativa, Sleeping and Waking, Il Policlinico, Brain Dysfunction, Fortschritte der Medizin; **Member**, Program Comm., Am. Assn. for Mental Deficiency. Present: **Advisory Board**, Global Coherence Project; **Co-Editor-in-Chief**, World Heart Journal; **Honorary Editor**, Neuroendocrinology Letters; **Associate Editor**, Intl. J. of Prenatal and Perinatal Psychology and Medicine; **Editorial Board or Council**, New Trends in Experimental and Clinical Psychiatry, In vivo; **Fellow**, New York Acad. of Sciences, Am. Assn. for the Advancement of Science. **Member or Member emeritus**: American Assn. for Cancer Research; Am. Physiological Soc.; Assn. des Physiologistes de Langue Française; Cosmos Club; Endocrine Soc.; Minn. Academy of Science; Sigma Xi; Soc. for Experimental Biology and Medicine; Am. Epilepsy Soc.; Intl. Assn. for Integrative Anthropology

CONTRIBUTION: Chronobiology: the computer-aided science of the body's time structure (from *chronos* = time, *logos* = science and *bios* = life) (Introduced in Halberg F.: Chronobiology [Ann. Rev. Physiol. 31: 675-725, 1969], with a follow-up in Halberg F.: Quo vadis basic and clinical chronobiology: promise for health maintenance [Am. J. Anat. 168: 543-594, 1983]). **Chronomics**: the mapping of chronomes (time structures), i.a., for chrono-functional genomics, accounting for quantifiable, partly predictable road maps consisting of a spectrum of rhythms with periods covering over 10 orders of magnitude, organizing chaos, and undergoing trends. **Chronobioethics**: mapping characteristics of spiritual (e.g., religious) motivation, crime and war, as well as physical and other environmental variables, pertinent to diseases of society and of those of individuals (Biomedicine and Pharmacotherapy 2001; 55 [Suppl 1]: 153-190; Neuroendocrinol Lett 2001; 22: 359-384; cf. also Introduction to Chronobiology. Medtronic Chronobiology Seminar #7, April 1994, 52 pp, <http://www.msi.umn.edu/~halberg/>).

PUBLICATIONS: 3722 (including titles published posthumously) as of 13 May 2015; bibliography available from http://2011.geocataclysm.org/pdf/Franz_Halbergs_Bibliography-Update...

BIOGRAPHY: Lord of Time. London: Science without Borders / International Publishing House SWB; 2011. 45 p. http://2011.geocataclysm.org/pdf/franz_halberg_220811.pdf

INTERVIEW: "Why Timing is Everything" by Paul J. Rosch, MD, FACP, in May 2010 issue of Health and Stress: The Newsletter of the American Institute of Stress