

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Cedric F. Walker		POSITION TITLE Professor, Biomedical Engineering	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Stanford University, Palo Alto, CA	B.S.	1972	Gen'l Engr./Bioengineering
Stanford University, Palo Alto, CA	M.S.	1972	Engineering Science
Duke University, Durham, NC	Ph.D.	1978	Biomedical Engineering

A. Positions and Honors.

Professional Experience:

8/77- Tulane University, New Orleans, LA
8/77 - 6/82 Assistant Professor of Biomedical Engineering
7/82 - 6/91 Associate Professor of Biomedical Engineering
7/91 - 6/97 Chairman, Biomedical Engineering
7/91 - Professor of Biomedical Engineering
7/97 - Chairman, Engineering Science
7/84 - Adjunct Associate Professor, Department of Psychiatry & Neurology
7/02 - Adjunct Professor, Neurosurgery
1/97 - 7/97 Technion - Israel Institute of Technology - Visiting Professor of Biomedical Engineering

Registration and Certification:

Professional Engineer (P.E.), Louisiana #24229
Healthcare Technology Certification Commission (American College of Clinical Engineering)
Certified in Clinical Engineering (C.C.E.), #69

Current Extramural Activities:

Consultant, Neurological Devices Panel, Medical Devices Advisory Committee, FDA/CDRH 1994-
Member, Editorial Board, CRITICAL REVIEWS IN BIOMEDICAL ENGINEERING, 1994-
Member, AAMI Standards Committee on Implantable Neurostimulators, 1981-
Member, Engineering Accreditation Commission, Accreditation Board for Engineering and Technology, 2005-

Honors and Awards:

Fellow, IEEE - Fellow, AIMBE - Alpha Eta Mu Beta (Biomedical Engineering Honorary) - Sigma Xi - Tau Beta Pi (Engineering Scholarship Honorary) - Omicron Delta Kappa (University Administration Honorary) - Biomedical Engineering Teacher of the Year: 1984, 1985, 1987 and 1991 - Lee H. Johnson Award for Teaching Excellence (Tulane University), 1987 - American Men and Women of Science - Who's Who in America

B. Selected peer-reviewed publications (in chronological order).

Walker, C.F., "Multichannel Stimulation of Peripheral Nerve Trunks", Ph.D. Dissertation, Duke University, 1977. DISSERTATION ABSTRACTS, 39:4986-B. University Microfilms Order No. 7906996.

Walker, C.F., Lockhead, G.H., Markle, D.R., and McElhane, J.H., "Parameters of Stimulation and Perception in an Artificial Sensory Feedback System", JOURNAL OF BIOENGINEERING, 1:251-260, 1977.

Mullen, J.B., Walker, C.F., and Nashold, B.S. Jr., "An Electrophysiological Approach to Neural Augmentation Implantation for the Control of Pain", JOURNAL OF BIOENGINEERING, 2:65-67, 1978.

Walker, C.F., and Sepulveda, N.G., "Estimulacion Electrica", COLOMBIA ELECTRONICA, 5(9):29-39, 1980.

Heath, R.G., Rouchell, A.M., Llewellyn, R.C., and Walker, C.F., "Cerebellar Pacemaker Patients: An Update", BIOLOGICAL PSYCHIATRY, 16:953-962, 1981.

- Walker, C.F., Sepulveda, N.G., and Rusinko, J.B., "A New Technique for Stimulation Electrode Design", IRCS MEDICAL SCIENCE, 9:681-682, 1981.
- Heath, R.G., Franklin, D., Walker, C.F., and Keating, J.W., "Cerebellar Vermal Atrophy in Psychiatric Patients", BIOLOGICAL PSYCHIATRY, 17:557-571, 1982.
- Walker, C.F., Seitelman, D.L., McElhaney, J.H., Mullen, S.P., Hagadorn, B.A., and Seto, Y.J., "Effects of High Intensity 60 Hertz Fields on Bone Growth", JOURNAL OF BIOELECTRICITY 1(3):339-349, 1982
- Sepulveda, N.G., Walker, C.F., and Heath, R.G., "Finite Element Analysis of Current Pathways with Implanted Electrodes", JOURNAL OF BIOMEDICAL ENGINEERING, 5(1):41-48, 1983.
- Heath, R.G., Fitzjarrell, A.T., and Walker, C.F., "Kappa Opiate Receptor Agonists: Effects on Behavior and on Brain Function of Rhesus Monkeys", BIOLOGICAL PSYCHIATRY, 19(7):1045-1074, 1984.
- Seto, Y.J., Hsieh, S.T., Lyman grover, J.R., Majeau-Chargois, D., Dunlap, W.P., and Walker, C.F., "Investigation of Fertility and *in utero* Effects in Rats Chronically Exposed to High-Intensity 60 Hz Electric Field" IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING v.BME-31:693-702, 1984.
- Heath, R.G., Walker, C.F., Dempsey, C.W. and Franklin, D.E. "Cerebellar Stimulation for Treatment of Intractable Behavioral Disorders and Epilepsy", chapter 5 in NEURAL STIMULATION v.II, pages 77-94. Edited by Mykelbust, J.B., Sances, A., Larson, S.J., and Cusick, J.F.: Boca Raton, FL., CRC Press, 1985.
- Heath, R.G. and Walker, C.F., "Correlation of Deep and Surface Electroencephalograms with Psychosis and Hallucinations in Schizophrenics: A Report of Two Cases", BIOLOGICAL PSYCHIATRY 20(6):669-674, 1985.
- Heath, R.G., Walker, C.F., Dempsey, C.W. and Franklin, D.E., "Neuroolith Stimulation of the Cerebellar Vermis as Treatment for Intractable Behavioral Disorders and Epilepsy" in NEUROSTIMULATION - AN OVERVIEW, pages 231-240. Edited by Lazorthes, Y. and Upton, A.R.M.: Mt. Kisco, NY, Futura Publishing, 1985.
- Hsieh, S.T., Lyman grover, J.R., Dunlap, W.P., Majeau-Chargois, D., Walker, C.F. and Seto, Y.J. "High-Intensity Electric Field Induced Mild Stress Response in Animal Organ Weights", BIOELECTROCHEMISTRY AND BIOENERGETICS 14:45-56, 1985.
- Svirsky, M.A., Cullen, J.K. and Walker, C.F., "Cochlear Implants", chapter 38, pp.1161-1193 in Wise, D. (editor): BIOINSTRUMENTATION: RESEARCH, DEVELOPMENTS AND APPLICATIONS, Butterworth Publishers, 1990.
- Walker, C.F., Nieto, J.M., and Broillet, B.A., "Needle Guard Device" UNITED STATES PATENT No. 4,932,940, issued June 12, 1990.
- Waring, A.J., Housworth, C.M., Voorhies, R.M, Douglas, J.R., Walker, C.F., and Connolly, S.E. "A Prototype Retractor System Designed to Minimize Ischemic Brain Retractor Injury - Initial Observations" SURGICAL NEUROLOGY 34:139-143, 1990.
- Sikka, S.C., Wang, R., Walker, C.F., Kukuy, E., and Hellstrom, W.J.G. "Effect of Temperature Changes on Human Sperm Motion During Electrical Stimulation" PROCEEDINGS, AMERICAN SOCIETY OF ANDROLOGY, 1992, p.40.
- Sikka, S.C., Wang, R., Kukuy, E., Walker, C.F. and Hellstrom, W.J.G. "The Detrimental Effects of Electric Current on Normal Human Sperm" JOURNAL OF ANDROLOGY 15:145-150, 1994.
- Clejan, S., Ide, C., Walker, C., Wolf, E., Corb, M., and Beckman, B. "Electromagnetic Field Induced Changes in Lipid Second Messengers" JOURNAL OF LIPID MEDIATORS AND CELL SIGNALLING 13:301-324 (1996)
- Karp, E.W., Bianchini, K.J., Fine, D.R., Fine, J.M., and Walker, C.F., "Visit Verification" UNITED STATES PATENT No. 6,154,727 issued November 28, 2000.
- Mullenax, C.A., Walker, C.F., and Newsome, D.A. "An Electrophoretic Method to Deliver Topical Drugs to the Eye" BIOMEDICAL INSTRUMENTATION AND TECHNOLOGY 37(6):423-432 (2003)
- Valina, Christian, and Todd Luka, Kai Pinkernell, Russ Auger, Cedric Walker, Eckhard Alt "Subcutaneous Impedance Monitoring for Detection of Low Cardiac Output and Pulmonary Fluid Overload in Pigs" North American Society for Pacing and Electrophysiology (NASPE) 2004
- DiLorenzo, D.J., C.F.Walker, and R. Davis (editors): "Neuroengineering" section IV in Biomedical Engineering Fundamentals, part 1 of the Biomedical Engineering Handbook, overall editor Joseph D. Bronzino. 2006, CRC Taylor & Francis.