

Curriculum Vitae

Werner Michael Graf

Dept. Physiology & Biophysics
Howard University College of Medicine
520 W Street N.W.
Washington, DC 20059 - USA

Tel: (202) 806-6330
Fax: (202) 806-4479
E-mail: wgraf@howard.edu

Personal data

Place of Birth: Oettingen/Bay, Germany

Citizenship: USA

Education

- 1969 Abitur (high school graduation), Albertus-Gymnasium, Lauingen
President of the Student Council
- 1970-1975 Medical School, Albert-Ludwigs-University in Freiburg,
Federal Republic of Germany
- 1976 Internship, Oettingen Hospital (Surgery) and University
Clinic, Freiburg (Internal Medicine)
- 1979-1981 Postdoctoral Fellow in the Department of Physiology and
Biophysics, New York Univ. Medical School, New York, NY with
Drs. R. Baker and J.I. Simpson (Chairman: Dr. R. Llinás)

Degrees

- 1975 M.D. (Staatsexamen)
- 1976 ECFMG (Foreign Medical Graduates' Exam USA)
- 1977 Ph.D. (Dr. med.), University of Freiburg, Neurology Hospital
(Director: Prof. R. Jung) (thesis advisor: Prof. J. Dichgans)
- 1979 Approbation (Licence to practice Medicine)

Positions

- 1977-1979 Research Associate at the Neurobiology Unit (P.Doz.Dr.D.L. Meyer) Institute for Histology and Neuroanatomy, Georg-August-University in Göttingen (Director: Prof. P. Glees)
- 1977&1978 Visiting Scientist: Field research in the Amazon region in Manaus/Brazil (Instituto Nacional des Pesquisas dô Amazônia)
- 1981-1986 Assistant Professor, Department of Neurophysiology, The Rockefeller University, New York, NY (Dr. V.J. Wilson)
- 1986-1991 Associate Professor, Department of Neurophysiology, The Rockefeller University, New York, NY (Dr. V.J. Wilson)
- 1992-1995 Adjunct Professor, Department of Neurophysiology, The Rockefeller University, New York, NY (Dr. V.J. Wilson)
- 1992-2005 Directeur de Recherche, Laboratoire de Physiologie de la Perception et de l'Action. CNRS/Collège de France, Paris (Dr. A. Berthoz)
- 1992-1995 Visiting Scientist: Dept. Physiology, Tokyo Medical University, Tokyo, Japan (Prof. Y. Uchino)
- 2005-2013 Professor and Chairman, Dept. Physiology & Biophysics, Howard University College of Medicine, Washington, DC
- 2008-2011 Director of the Howard University/Physiology Department's Specialized Neuroscience Research Program (SNRP)
- 2014- Professor, Dept. Physiology & Biophysics, Howard University College of Medicine, Washington, DC

Awards

- 1979 Research Fellowship from the German Research Foundation (DFG: Gr 688/1, 2 yrs.)
- 1981 Grass Fellow at the Marine Biological Laboratory, Woods Hole, Massachusetts
- 2002 Prix Antoine Lacassagne (Lacassagne Prize of the Collège de France)
- 2012 Research Award (senior scientists). Howard University Health Sciences Research Day

Teaching experience

Neuroanatomy, including laboratory
(Göttingen University Medical School)
Artificial membrane laboratory and biophysics (New York University Medical School)
Neurophysiology course, including laboratory
(The Rockefeller University, New York)
Neuroscience Program (Ludwig-Maximilians-University, Munich)
Ecole des Neurosciences (Masters), Université Paris VI (Pierre et Marie Curie).
Ecole doctorale des Neurosciences (BMIC et DEA) - Université Lyon 1.

Neurobiology course for students of the Ecole Nationale Vétérinaire de Toulouse
(Traçage transneuronal avec le virus de la rage)
Graduate Student Course (Neurophysiology), Howard University, Washington,
DC
Medical Student Curriculum (Structure-Function, including laboratory), Howard
University College of Medicine, Washington, DC
Pharmacy Student Curriculum (Biomedical Science), Howard University College
Pharmacy, Washington, DC
Allied Health Student Curriculum (Physiology and Pathophysiology), Howard
University College of Nursing and Allied Health Sciences, Washington, DC
Dental Student Curriculum (Physiology), Howard University College of Dentistry,
Washington, DC
Interdisciplinary Program in Neuroscience, Georgetown University

Professional affiliations

American Physiological Society
Association of Chairs of Departments of Physiology
Society for Neuroscience (USA)
Société des Neurosciences (France)
International Society for Neuroethology
International Brain Research Organization (IBRO)
Federation of European Neuroscience Societies
European Brain and Behaviour Society
Neurowissenschaftliche Gesellschaft (Germany)
Bárány Society
J.B. Johnston Club (Brain, Behav., Evolution)
Deutscher Hochschulverband
Ärztammer Niedersachsen (Professional Organization of the Physicians of the
State of Lower Saxony, Germany)
Corporation Member, The Marine Biological
Laboratory, Woods Hole, Massachusetts

Research support

NIH (R01 - EY-04613): Spatial coordinates of visuo-vestibulo-ocular
reflexes. Principal investigator, 1983-1994.
NIH (R01 - DC-00239): Adaptive changes in flatfish vestibular system.
Principal investigator, 1984-1992.
EC-Human Capital and Mobility (CHRXCT930267): Representation
of three-dimensional space in monkey neocortex. Co-PI. 1994-1997
French-Japanese scientific collaboration (Convention Internationale
CNRS-Japan Society for the Promotion of Science:
JSPS/RC1/95011): Saccular control of skeletal geometry. PI – France. 1995.
French-German scientific collaboration (Programme d'Actions
Intégrées PROCOPE: 96114): Asymmetry of the nervous system
in flatfishes. PI – France. 1996-1998.
Human Frontier Science Program (RG-71/96 B): Neuronal
mechanisms for self-motion perception. PI
(coordinator). 1996-1999.
EC-Biotechnology (BIO4-CT98-0546): Transneuronal tracing reveals
the modular building blocks of the nervous system -TRANS-VIRUS. Co-PI.
1998-2001.
CNES: Microgravity and vestibular system development: influence on cell
differentiation and neuronal connectivity Co-PI. 1999-2002.
EC-5th FP (QLRT-2001-00151): Oculomotor function and self-motion
perception in the elderly – EUROKINESIS. PI (coordinator). 2002-2007.

EC-6th FP (EST 7825): European Early Stage Research Training ("Multisensory information processing in non-human primates" - SensoPrim), 2005-2008.
 NSF-Undergraduate training grant (in cooperation with M. Riesenhuber, Georgetown Univ. NSF-0749986)
 NIH/NINDS - Specialized Neuroscience Research Program (SNRP). "Central Autonomic Control, Aging and Oxidative Stress" (U54 NS039407). PI (director) 2005-2011.
 NSF-PIRE (International Research Program in Cognitive and Computational Neuroscience), PIRE Program in Cognitive, Computational and Systems Neuroscience: 0730255 (PI: J. Rauschecker, Georgetown Univ.; Co-PI: W. Graf, Howard Univ.), 2007-2017.
 NSF-IGERT (Integrative Graduate Education and Research Traineeship Program) in "Dynamics of Behavioral Shifts in Human Evolution: Brains, Bodies and Ecology": 0006461 (PI: B. Wood, George Washington Univ., Co-PI: W. Graf, Howard Univ.), 2008-2016.
 Howard University College of Medicine Pilot Grant. "Transsynaptic Mapping and Activity of Tinnitus Networks in Mice". PI. 2013-2015.

Conference support and organization

NSF (BNS-8904738): International Conference on the Head-Neck Movement System (Paris, 1989), 1989-1990.
 European Science Foundation-European Research Conferences:
 (Conference series: Three-Dimensional Sensory and Motor Space: 97-110) (with Drs. V. Henn, Zürich and M. Frens, Rotterdam).
 I: Polysensory interaction in the generation of eye movements. Giens/Toulon, Sept. 5-10, 1997 (Henn)
 II: Cortical neuronal mechanisms and psychophysics of orientation and motion in three-dimensional space. Castelvecchio Pascoli, April 9-14, 1999 (Graf)
 III: Cerebellar and cortical control of eye movements. Granada, March 31-April 5, 2001 (Frens)
 IV: Computational Mechanisms for the Generation and Perception of Action in 3D Space. Aquafredda di Maratea. April 5-10, 2003 (Lappe)
 V: Probabilistic mechanisms of learning and development in sensorimotor systems. Sant Feliu de Guixols, October 8-13, 2005 (Wolpert)
 VI: Perceptual consequences of motor action. Sant Feliu de Guixols, October 6-11, 2007 (Smeets)
 NSF (PIRE & IGERT)/NIH-SNRP: "New Avenues and Directions in Neuroscience: a Revolution in Understanding Behavior through Channels Genes and Neurons" - International Neuroscience Conference (with Richard Dawkins). Howard University, Washington, DC. September 28 - October 1, 2010
 NSF (PIRE): "Program in Cognitive, Computational and Systems Neuroscience" – Conference and Summer School. Frauenchiemsee, Germany, September 3–10, 2011
 Sigma Xi – Nobel Laureates Visit and Conference – Martin Chalfie: Green Fluorescent Protein (GFP): Lighting up Life. Nov.4/5 2014.
 Sigma Xi – Nobel Laureates Visit and Conference – Torsten Wiesel: Why and how I became a neuroscientist. April 7, 2015

Recent grant submissions:

NSF-REESE - Parietal Sensorimotor Complex and Mathematical Imagination. Co-PI

NSFF-REAL – Mobile Technologies Undergraduate Education – Co-PI

NSF-REAL – Mobile Technologies Graduate Education – Co-PI

NIH/NIGMS (R25) - Howard University Research Initiative for Transitioning to the next level through Mentorship and Competitiveness (HU-RISE-TMC). PI

NIH/NIDCD (R25) Special Topic Research Education Course: Howard University Training in Auditory-Vestibular Biology (HU-TAB). PI

NIH/NIGMS (R25) – Howard University Postbaccalaureate Research Education Program (HU-PREP). PI

GHUCCTS Pilot Awards for Translational and Clinical Studies (PTCS) – Glucose Tolerance and Cerebral/Systemic Endothelial Compliance in Obese African-American Women. PI

NSF - PIRE Project on Comparative Experimental Neurobiology of Balance (International collaborative project with co-funding from the German Research Foundation/DFG and Swiss National Fund). PI

NSF – Major Research Instrumentation Program (MRI) : Acquisition of Eye-Tracker for Visual-Vestibular Interaction and Conflict Adaptation (HU-MRI). PI

NASA/NSPIRES - Multisensory cueing and sensorimotor training for improving astronaut orientation accuracy and coordinated motor performance in space conditions. Team Member (Co-I/Science PI). Budget \$ 800,000 2022-2026 (submitted)

Recent Services (select list):

2001-2005, Committee Member, Comité d'Ethique sur l'Experimentation chez les Animaux, Île-de-France - Paris 1 (Animal Welfare Committee for all Research Institutions and Universities in the City of Paris, France)

2008-2011, Chair, Dean's Committee on Faculty Awards.

2009-2011, Curriculum Committee (for Medical Schools) of the American Physiological Society (Neuroscience)

2010-2012, Research Advisory Committee, Office of the Senior Vice-President for Health Sciences, Howard University.

2010-2012 - Research Advisory Committee, Office of Provost, Howard University.

2009/10/11 - Study Section NIH/CSR (Emerging Technologies and Training in Neuroscience; Div. Neuroscience, Development and Aging, F02B)

2014 - Founding Member HU/JHJU-Program in Medical Physics.

2016 -2018 – Howard University Senate Committee on Appointments, Promotions and Tenure (APT Committee)

2018 - 2021 - Program Committee J.B. Johnston Club for Evolutionary Neuroscience (Chair)

2019 - President-elect Howard University Chapter Sigma Xi

2019 - 2020 - Howard University Senate Committee on Appointments, Promotions and Tenure (APT Committee) (Chair)

2020 – 2023 President Howard University Chapter Sigma Xi

2021 – 2023 - Faculty Grievance Commission Hearing Panels (Chair)

2016 - – Review Editor for Movement Science and Sport Psychology

2018 - – Editorial Board for Brain Sciences

2022 - Committee on Diversity in Comparative/Evolutionary Neuroscience. JBJC of Comparative Neuroscience

2023 - Howard University College of Medicine Committee on Appointments, Promotions and Tenure (APT Committee)