



Jerrold Bushberg, M.S., Ph.D., DABMP

Clinical Professor, Radiology & Radiation Oncology

Specialties

Radiation Biology, Medical Physics, Health Physics, Nuclear Medicine Physics

Department

Radiology

Division

Health Physics, Radiology and Radiation Oncology

Internal Contact Information: 916-734-6464

BIO

Philosophy of Care and Clinical/Research/Academic Interests

Professor Bushberg is an expert on the biological effects, safety, and interactions of ionizing and non-ionizing radiation and holds multiple radiation detection technology patents. He is Chair of the Board of Directors and Senior Vice-President of the United States National Council on Radiation Protection and Measurements. With over 40 years of experience, he has served as a subject matter expert and an adviser to government agencies and institutions throughout the nation and around the world including U.S. Department of Homeland Security, the FDA's Center for Devices and Radiological Health, the World Health Organization, and the International Atomic Energy Agency in the areas of ionizing and non-ionizing radiation protection, risk communication, medical physics and radiological emergency medical management. Prior to coming to UC Davis Health as technical director of Nuclear Medicine, he was on the faculty of Yale University School of Medicine department of Radiology where his research was focused on radiopharmaceutical development. Dr. Bushberg has responsibility for medical postgraduate education in medical physics, radiation (ionizing and non-ionizing) biology and protection. The 4th edition of the textbook "The Essential Physics of Medical Imaging," authored by Bushberg, Seibert, Leidholdt, and Boone, is used extensively by radiology residency programs throughout the United States.

EDUCATION

Board Certifications

American Board of Medical Physics, Nuclear Medicine and Radiation Protection, 2018

American Board of Science in Nuclear Medicine, Radiation Biology and Radiation Protection, 2021

Fellow, American Association of Physicists in Medicine, Medical Physics, Radiation Protection, 2012

Fellow, Health Physics Society, Radiation Protection, 2014

Undergraduate School

B.S. - Physiology/Physics, University of California, Davis, Davis, CA 1974

Medical School

M.S. - Health and Medical Physics, Purdue University, W. Lafayette, IN, 1980

Ph.D. - Radiation Biology & Bionucleonics, Purdue University, W. Lafayette, IN, 1982

Fellowship(s)

Radiation Oncology/Radiation Biology, Mayo Clinic, Rochester, MN, 1979

Radiology/Nuclear Medicine Physics, Yale University/Yale New Haven Hospital, New Haven, CT, 1979

Professional Memberships

American Association of Physicists in Medicine

Health Physics Society

The Institute of Electrical and Electronics Engineers

The National Council on Radiation Protection & Measurements

AWARDS AND RECOGNITIONS

- 2020 Outstanding Contribution Award IEEE Standards Association IEEE Standard C95.1
- 2019 Outstanding Service Award NCRP
- 2018 Chancellor's Emeritus Appointment U.C. Davis
- 2017 Appointment Vice-Chair: American Board of Medical Physics
- 2016 John C. Christiansen Distinguished Alumnus award, Purdue University School of Health Sciences.
- 2016 Appointment, Associate-Chair, Department of Radiology U.C. Davis
- 2015 Elected Vice-Chair International Council on Man and Radiation (COMAR) IEEE Engineering in Medicine and Biology Society
- 2014 Elected fellow of the Health Physics Society
- 2014 Appointment, Asst.-Chair, Department of Radiology U.C. Davis
- 2014 Awarded Warren K. Sinclair Medal for Excellence in Radiation Science by National Council on Radiation Protection & Measurements (NCRP)
- 2012 Appointment to Board of Directors: American Board of Medical Physics
- 2012 Elected fellow of the American Association of Physicists in Medicine
- 2011 Appointment as NCRP Senior Vice-President and Chairman of the Board
- 2007 Appointment U.S. expert delegation to the international scientific community on Scientific and Technical Issues for Mobile Communication Systems established by the Federal Communications Commission
- 2005 Appointment as Scientific Vice-President and Director of NCRP
- 2004 Appointment as radiation and nuclear Subject Matter Expert, Office of WMD Operations and Incident Management Science and Technology Directorate, U.S. Department of Homeland Security
- 2002 Elected to Council NCRP
- 2001 Promoted to Rank of Commander, United States Navy Reserves
- 2001 Elected to COMAR IEEE Engineering in Medicine and Biology Society
- 2000 University of California, Davis Health System Director's Award for Excellence and Achievement
- 1995 Promoted to Rank of Lt. Commander, United States Navy Reserves
- 1998 Elected to International Council on Electromagnetic Safety (ICES)
- 1989 Commissioned Officer Lt. United States Naval Reserve
- 1981 Jenkins Research Award, Purdue University, Department of Bionucleonics
- 1980 Sigma Xi, National Research Honorary
- 1980 Phi Kappa Phi, National Academic Honorary
- 1979 National Research Service Award, U. S. Department of Health, Education and Welfare
- 1979 National Training Fellowship, U. S. Department of Energy, Yale University and Mayo Clinic
- 1978 Eta Sigma Gamma, National Professional Honorary in Health Scienceslisting