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Education

B.Sc. Physics, University College, University of London, 1964 (Honors).

Ph.D. Radiation Biology, Royal Free Hospital School of Medicine, University of London, 1969.

Biosketch

ANTHONY C. JAMES is a Research Professor (Health Physics/Radiation Biology) in the College of Pharmacy, Washington State University (WSU), where he directs the U.S. Transuranium & Uranium Registries (USTUR), the National Human Tissue Repository (NHRTR), and the National Radiobiology Archives (NRA) projects – www.ustur.wsu.edu. The USTUR/NHRTR is a federal-grant-funded human tissue research program providing long-term follow-up of actinide biokinetics and potential health effects in nuclear workers (volunteer Registrants) with accidental internal depositions of these elements. The NRA is the national collection of pathology slides and laboratory records from lifetime studies of radiation effects in experimental animals. Dr. James began his professional career with 17 years at the UK's National Radiological Protection Board (NRPB), where he led research on (i) the monitoring and internal dosimetry of airborne radon progeny, and (ii) the deposition and biokinetic behavior of inhaled "industrial" aerosols of uranium, plutonium and other transuranium elements in experimental animals. In 1988, he migrated to the Life Sciences Center, Pacific Northwest National Laboratory (PNNL), where he was a staff scientist in the Biology Department, and latterly a Group Leader and Laboratory Fellow (Chief Scientist) in the Health Physics Department. He left PNNL in 1994, to establish an independent scientific consulting business specializing in internal dosimetry. From 2001 to 2004, Dr. James' company developed (with NRPB) the ICRP68-based bioassay and internal dosimetry software suite "IMBA Expert™ USDOE-Edition" for DOE's Offices EH-51 and EH-31. The new methodologies implemented in this software replaced the ICRP30-based dosimetry methods previously used for regulatory dose assessments by DOE sites and contractors. His company also developed with NRPB the software "IMBA Expert™ OCAS-Edition" used by CDC/NIOSH's Office of Compensation Analysis and Support (OCAS), and its health physics contractors, to reconstruct tissue doses from internal exposures to radionuclides received by individual claimants under the Department of Labor's Energy Employees Occupational Illness Compensation Program Act (EEOICPA 2000). Dr. James brings to WSU/USTUR special experience in both practical and theoretical internal dosimetry of transuranic materials and uranium, including 19 y served as a scientific consultant in these specialties. He also brings experience of active participation in the work of two ICRP Task Groups, reporting on "Protection against Radon-222 at Home and at Work" (ICRP Publication 65; ICRP 1993) and the "Human Respiratory Tract Model for Radiological Protection" (ICRP Publication 66; ICRP 1994), and of corresponding membership of the ICRP Task Group on Dose Calculations (DOCAL). Dr. James has served on a Scientific Committee of the National Research Council (NRC) concerning "Comparative Dosimetry of Radon in Mines and Homes," and continues to be a member of NASA/DOE/EPA's Interagency Nuclear Safety Review Panel/Biomedical and Environmental Effects Sub-panel (INSRP/BEES). He also currently serves as a Member of scientific committee SC6-2 of the National Council on

Radiation Protection and Measurements (NCRP): on “Uncertainties in Internal Dose Assessment” and as a consultant to SC6-2 on “Radiation Exposure of the U.S. Population.” He is an Alternate Member of the Hanford Advisory Board (HAB), representing Local and Regional Public Health. Dr. James also holds an Adjunct Graduate Faculty appointment in the Department of Physics, Health Physics Program, Idaho State University. He has authored or co-authored well over 100 articles in the peer-reviewed scientific literature. Dr. James is a Chartered Radiation Professional (CRadP) of the UK’s Radiological Protection Society.

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Research Experience

- 2005- Research Professor and Director, U.S. Transuranium & Uranium Registries, Washington State University, Richland, WA.
- 2004-05 Research Professor and Associate Director, U.S. Transuranium & Uranium Registries, Washington State University, Richland, WA.
- 2004- Faculty Affiliate, Department of Physics, Health Physics Program, Idaho State University, Pocatello, ID.
- 2004-07 Faculty Affiliate, Department of Environmental & Radiological Health Sciences, Colorado State University, Fort Collins, CO.
- 2001-04 Adjunct Professor, Department of Pharmaceutical Sciences, College of Pharmacy, Washington State University, Pullman, WA.
- 1995- Internal dosimetry consultant and President of consulting and internal dosimetry software-development company (ACJ & Associates, Inc.).
- 1994-95 Associate Research Professor, United States Transuranium and Uranium Registries, College of Pharmacy, Washington State University, Tri-Cities Branch Campus, Richland, WA.
 - Research on internal dosimetry, radionuclide biokinetics, and risk modeling in conjunction with the U.S. Transuranium and Uranium Registries.

- Provided independent scientific advice and consultancy services in internal dosimetry, exposure and risk assessment.
- 1991-94 Laboratory Fellow, Occupational Health Protection Section and Health Protection Department, Pacific Northwest Laboratory, Richland, WA.
- Led research projects, carried out research and consultancy work related to internal dosimetry, and mentored scientific colleagues in the Occupational Health Protection Section of the Life Sciences Center.
- 1989-91 Technical Group Leader, Exposure, Biokinetic and Dosimetric Modeling, Health Physics Department, Pacific Northwest Laboratory, Richland, WA.
- Formed and led Technical Group of four research scientists, two postdoctoral research fellows, and one technical specialist.
 - Carried out research for DOE/OHER to review biological behavior of radon daughters and develop state-of-the-art models to evaluate doses to human and animal tissues.
 - Carried out dosimetric modeling study for industrial client to evaluate effects of operating air cleaning device on lung doses from radon daughters in home environments.
 - Led DOE/OHER research project to model microdosimetry of target cells in human lung from exposure to radon daughters, and also microdosimetry of cells exposed in culture.
 - Led DOE/OHER research project to develop instruments and methods to improve characterization and control of the exposure of experimental animals to radon progeny (Aerosol Technology Development).
 - Collaborated with overseas and PNL colleagues to complete development of deposition, clearance and dosimetry models, and prepared two Chapters for 1991 draft ICRP Task Group Report.
 - Prepared expert evidence on doses to respiratory tract and body organs of subjects exposed in their home to ^{239}Pu in household dust for U.K. industrial client, and appeared on behalf of client in the High Court, London, for cross-examination.
 - Collaborated with PNL colleagues to study feasibility of measuring surface activity of long-lived ^{210}Po in personal artifacts as index of past exposure and bronchial dose in case-control epidemiological studies of radon and lung cancer.
 - Carried out modeling study of relative doses to sensitive cells in bronchial epithelium from human exposures to radon daughters in mines and in homes, and contributed two chapters to National Academy of Science's Committee Report on this subject.
- 1988-89 Staff Scientist, Biology and Chemistry Department, Pacific Northwest Laboratory, Richland, WA.
- Collaborated with overseas colleagues to develop draft lung deposition, clearance and dosimetry models for ICRP Task Group on Human Respiratory Tract Models for Radiological Protection.
 - Carried out modeling study of doses to regions of the respiratory tract and body organs from exposure to airborne ceramic microspheres containing ^{210}Po for industrial client.

- Led exploratory research on fluid mechanical, particle transport and computer graphics modeling of respiratory airways.
 - Led the DOE/OHER research project in "Aerosol Technology Development."
- 1986-88 Group Leader, Airborne Radionuclides, Radiological Measurement Department, NRPB, Chilton, Oxfordshire, UK.
- Development of conversion factor between exposure to radon in homes and risk underlying NRPB's recommended standard for limiting public exposure in UK.
 - Assessment of results from NRPB's systematic national survey of population exposure to radon, and likely incidence of high exposures in particular geological and administrative regions of UK.
 - Led development of procedures to identify individual homes and areas of UK at risk, operating system to conduct large scale surveys of annual exposure to radon, and administrative system to respond to public, local authority and government department's demands.
 - Led programs to screen schools, mines and other workplaces for radon: to find those requiring radiological supervision according to UK regulations, and to develop remedies.
 - Led experimental studies of penetration of sub-micron aerosols and unattached radon daughters through hollow cast of human nose, and of radon daughter aerosol characteristics in mines and homes.
- 1982-86 Group Leader, Aerosol Monitoring and Dosimetry, Physics Department, NRPB, Chilton, Oxfordshire, UK.
- Development of NRPB's facilities to serve as European Reference Laboratory for radon and daughter metrology.
 - Development of method and equipment to measure radon daughter concentrations in methane atmospheres (coal mines).
 - Development of field instrument to measure the activity-size distribution of radon daughter aerosols.
 - Study of statistical uncertainty in estimating intakes of plutonium from low levels of activity collected by personal air samplers.
 - Development of a general model of lung deposition, clearance mechanisms and dose to human respiratory tissues.
- 1977-82 Group Leader, Aerosols and Biophysics, Biology Department, NRPB, Chilton, Oxfordshire, UK.
- Experimental study and modeling kinetics of clearance of Pb ions and insoluble particles in nasal epithelium of the rat.
 - Study of clearance and metabolism of industrial actinide dusts administered to rodents by inhalation.
 - Study of clearance of insoluble particles from alveolar lung in human volunteers.
 - Development of model to calculate aerosol deposition in human respiratory tract and bronchial dose from exposure to radon and thoron daughters.

- 1974-77 Section Leader, Biology Department, NRPB, Harwell, Oxfordshire, UK.
- Study of kinetics of clearance of Pb ions from bronchial epithelium to blood, in rabbit.
 - Development of experimental facility to expose rodents by inhalation to toxic actinide dusts.
 - Development of external counting techniques to measure clearance of Pu, Am and U oxides from lungs of individual rodents.
 - Development of methods for sampling and characterizing actinide dusts from workplaces.
- 1971-74 Research Scientist, National Radiological Protection Board (NRPB), Harwell, Oxfordshire, UK.
- Development of field methods to measure radon daughter equilibrium and unattached fraction of potential α -energy.
 - Study of size distribution of long-lived airborne α -activity in workplaces.
 - Study of deposition of radon daughter aerosols in the bronchial tree using ventilated, excised lungs of pig.
- 1970-71 Research Scientist, Medical Research Council, Radiological Protection Service, Surrey, UK.
- Study radon daughter concentrations and aerosol characteristics in underground mines.
- 1966-70 Medical Research Council Fellow, Royal Free Hospital School of Medicine, London, UK.
- Experimental micro-dosimetry of cells at bone surfaces for ^{239}Pu in rat skeleton.
 - Sub-cellular localization of plutonium by electron-microscopy and autoradiography using ^{241}Pu .
 - Development of thin silicon surface barrier energy-loss detector to measure LET spectra for neutrons in tissue equivalent absorbers.
- 1964-65 Scientist, British Insulated Callendars Cables Research Laboratory, London, UK.
- Development of electrical and mechanical instrumentation.

Professional Society Membership

Society for Radiological Protection (UK)

Health Physics Society (USA)

Japan Health Physics Society (JP)

Radiation Research Society (USA).

International Work

- 2006 USEPA/JAEA – Delegated US Participant in Fourth JAEA-US EPA Workshop on Radiation Risk Assessment, Tokai Research and Development Center, JAEA, Japan.
- 1994-2002 ICRP - Corresponding member of Committee 2's Task Group on Dose Calculations (DOCAL).
- 1991-93 Member of CEC/DOE Working Group to Develop Recommendations on Risks from Radon Exposure.
- 1991 Chairman of Technical Review Committee, Atomic Energy of Canada Ltd., Chalk River Nuclear Laboratories, Radiation Biology and Dosimetry Research Programs.
- 1990-92 ICRP - Member of Committee 4's Task Group on Measures for Protection Against Radon.
- 1989 Member of Technical Review Committee, Atomic Energy of Canada Ltd., Chalk River Nuclear Laboratories, Radiation Biology and Dosimetry Research Programs.
- 1986-87 UK Representative on CEC Working Party to Review Exposure to Natural Radiation in Dwellings of the European Communities.
- 1985-92 Atomic Energy Control Board, Canada. Member of Review Panel for Experimental Study of the Effects of Uranium Ore Dust.
- 1984-93 ICRP - International Commission on Radiological Protection. Member of the Task Group on Human Respiratory Tract Models for Radiological Protection.
- 1984-86 OECD/NEA - CEC Organizing Committee for the International Inter-calibration and Intercomparison Programme on Radon Metrology. Representative of UK European Reference Laboratory.
- 1982-84 OECD/NEA Expert Group of Radon Dosimetry and Monitoring - Phase II. Member and co-author of final report.
- 1980-82 OECD/NEA Expert Group on Radon Dosimetry and Monitoring - Phase I. Consultant to the group on dosimetric modelling and principal author and editor of final report.

U.S. Committee Work

- 2006- Consultant to the National Council on Radiation Protection and Measurements (NCRP) Scientific Committee SC 6-2 on “Radiation Exposure of the U.S. Population” (http://www.ncrponline.org/Current_Prog/SC_6-2.html).
- 2005- Member of the National Council on Radiation Protection and Measurements (NCRP) Scientific Committee SC 6-3 on “Uncertainties in Internal Dose Assessment” (http://www.ncrponline.org/Current_Prog/SC_6-3.html).
- 2005- Alternate Member of the Hanford Advisory Board (HAB) representing Benton-Franklin [Counties] Public Health (<http://www.hanford.gov/?page=397&parent=0>).
- 1996 Member of the Life Sciences Peer Review Panel (Space Radiation Health) for the National Aeronautics and Space Administration (NASA), Universities Space Research Association.
- 1994- Member of the Interagency Nuclear Safety Review Panel/Biomedical and Environmental Effects Subpanel (INSRP/BEES) advising the Department of Energy, National Aeronautics and Space Administration, and Department of Defense.
- 1993 Invited participant in the NRC/NAS BEIR VI Committee's Radon Dosimetry Workshop, Albuquerque, NM, April 19, 1993.
- 1992 Invited sub-topic reviewer and participant in the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC) Internal Dosimetry Workshop, Atlanta, GA.
- 1991 Member of DOE/OHER Program Review Committee for the Environmental Measurements Laboratory, New York, NY.
- 1989-91 Chairman of DOE/OHER Inter-laboratory Task Group on Radiation Biology Dosimetry.
- 1989-90 National Research Council (NRC). Member of the Scientific Panel on Dosimetric Assumptions Affecting the Application of BEIR IV Risk Estimates.

U.S. Consultancy Work (for ACJ & Associates, Inc.)

- 2008 Consultant to American Nuclear Insurers, concerning hazard of incorporated uranium isotopes from environmental discharge of airborne uranium from the Apollo fuel fabrication plant, Apollo, PA (in ongoing litigation of Hall *et al.* v. Babcock & Wilcox *et al.*).

- 2008 Consultant to MDS Nordion concerning dose to the thyroid from uptake of iodine-131 through the skin from handling a leaking nuclear pharmaceutical source, in Charles Davis v. MDS Nordion.
- 2006-07 Expert witness for American Nuclear Insurers, concerning the application of ‘best current scientific practice’ to evaluate internal doses incurred by plaintiffs in Cotroneo et al., v. Shaw et al., from intakes of americium-241 and/or cesium-137 in the course of their employment decontaminating the Gulf Nuclear (EPA Superfund clean-up) site. Defendants were awarded Summary Judgement.
- 2005-06 Consultant to Project Enhancement Corporation (PEC), Germantown, MD and U.S. Department of Energy, Office of Quality Assurance Programs (EH-31), on the QA Gap Analysis of the IMBA Expert™ USDOE-Edition bioassay analysis and internal dosimetry software suite for the Defense Nuclear Safety Board (DNSB).
- 2002-04 Partner of Oak Ridge Associated Universities (ORAU) in the CDC/NIOSH Office of Compensation Analysis & Support’s (OCAS) Radiation Dose Reconstruction and Related Services Contract in support of EEOICPA, 2000.
- 2002-03 Primary contractor to the CANDU Owners Group (COG), Toronto, Ontario, Canada for the development of IMBA Expert™ CANDU-Edition, a suite of “expert” software for bioassay analysis and dose assessment in the operation of CANDU reactors.
- 2002-04 Primary contractor to CDC/NIOSH Office of Compensation Analysis & Support (OCAS) for the development of IMBA Expert™ OCAS-Edition, a suite of “expert” software for bioassay analysis and dose assessment to be used to carry out all internal dose assessments in support of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA, 2000).
- 2001-04 Primary contractor to U.S. Department of Energy, Office of Worker Protection Programs and Hazards Management (EH-52), for the development of IMBA Expert™ USDOE-Edition (Phase I & II), suites of “expert” software for bioassay analysis and dose assessment, to be used by all USDOE sites.
- 2001 Consultant to Washington State University, U.S. Transuranium and Uranium Registries to analyze and prepare for publication a whole-body donation case of a worker who had been exposed by inhalation to a finely divided aerosol of ²³⁸PuO₂ ceramic particles.
- 2001 Consultant to CDC/NIOSH regarding dose reconstruction regulations and guidelines and evaluation of software for estimating internal doses from bioassay data with reference to Nuclear Worker Compensation.
- 2001 Primary contractor to the UK Ministry of Defence (MOD) Defence Science and Technology Laboratory (Dstl, Porton Down, UK), for the development of IMBA-URAN - MOD/Dstl Edition, a suite of “expert” software for bioassay analysis and dose assessment for natural, depleted, and enriched uranium mixtures.

- 2001 Primary contractor to Framatome ANP, Richland, WA for the development of IMBA-URAN Framatome ANP Edition, a suite of “expert” software for bioassay analysis and dose assessment in a uranium fuel fabrication plant.
- 2001 Primary contractor to Cameco Corporation, Saskatoon, Saskatchewan, Canada, for the development of IMBA-URAN Cameco-Edition, a suite of “expert” software for bioassay analysis and dose assessment in the uranium mining and milling industry.
- 2001 Contractor to the U.S. Environmental Protection Agency, Office of Radiation and Indoor Air (ORIA) for review of the comparative dosimetry of radon progeny in mines and homes carried out by the BEIR VI Committee.
- 2000 Consultant to a private client concerning natural radionuclides in building products.
- 2000 Scientific expert for General Electric providing advice on flawed testimony of Plaintiff’s expert in *Tokerud vs PG&E et al.* Defendants were awarded Summary Judgement.
- 2000 Consultant to Cameco Corporation, Saskatoon, Saskatchewan, Canada for development of software to resolve multiple particle-size distribution components in workplace measurements of airborne uranium aerosols made with personal cascade impactors.
- 1999 Consultant to WAUSAU Insurance Companies and The Travelers Insurance on potential radiation exposure of an underground miner working in the Cannikin shaft and device cavity on Amchitka Island, Alaska.
- 1999 Consultant to the Pacific Northwest National Laboratory, Richland, WA on radiological protection issues concerning exposure to radon and its progeny at the Fernald plant, Ohio.
- 1999 Consultant to Westlakes Scientific Consulting Ltd., Whitehaven, Cumbria, UK on tissue dosimetry (absorbed fractions for alpha, beta, and photon emissions) for ingested natural alpha emitters in the esophagus.
- 1998-99 Consultant to Pacific Gas & Electric on radiation exposure and dose potentially received by a worker at the Vallecitos experimental reactor facilities, Pleasanton, CA.
- 1998 Consultant to American Nuclear Insurers and expert witness, concerning radiation doses allegedly received by Plaintiffs from discharges of airborne uranium from the Apollo fuel fabrication plant, Apollo, PA (in litigation of *Hall et al. v. Babcock & Wilcox et al.*).
- 1998 Consultant to U.S. Department of Energy, Richland Operations Office, to provide independent review of internal dose conversion coefficients incorporated in the Hanford Tank Waste Remediation System (TWRS) FSAR for evaluating radiological

- consequences of potential TWRS accidents. Contributed to Tier II Review Safety Evaluation Report (TWRS-RT-SER-03).
- 1997 Consultant to Boeing North America, Inc., on class action litigation involving the Comprehensive Environmental Response Compensation and Liability ACT (CERCLA) in relation to the Rocketdyne Facilities in Simi Hills, Canoga Park, and San Fernando Valley, California.
- 1997 Internal dosimetry consultant for the Dow Chemical Company in the United States District Court, District of Colorado Case of Merilyn Cook *et al.*, v. Rockwell International Corporation and the Dow Chemical Company concerning the Plaintiffs' class action claim for property damage allegedly resulting from plutonium released from the Rocky Flats Plant, Colorado.
- 1997 Internal dosimetry consultant for Northwest Electricity Board plc (UK) and The National Grid Company plc (UK) on the subject of bone marrow dose in relation to exposure to radon daughters, and the magnitude of any enhancement that could occur in the presence of a high external electromagnetic field (in Studholme v. NORWEB plc and Loxton v. The National Grid Company plc).
- 1997 Consultant to The Sapphire Group, Inc., Bethesda, Maryland, on the modeling of lung tissue burdens from exposure to environmental tobacco smoke in workplaces.
- 1997 Internal dosimetry consultant to Rio Tinto, plc (UK) on the subject of exposure of a uranium miner in relation to causation of laryngeal cancer.
- 1997 Consultant to the Australian Radiation Laboratory to implement ICRP's recycling metabolic models in LUDEP vs. 3.0.
- 1997 Consultant to the Pacific Northwest National Laboratory, Richland, WA and the U.S. Department of Energy Operations Office, Albuquerque, New Mexico, on revision of the Derived Investigation Level (DIL) for uranium excretion in urine for the protection of workers at Uranium Mine Tailings Remedial Action Project (UMTRA) facilities.
- 1997 Consultant to British Nuclear Fuels plc (UK), on the subject of dose to unborn children in Ireland resulting from past discharges of radioactive materials into the Irish Sea from the Sellafield reprocessing Plant (in Short and others v BNFL and others).
- 1996 Consultant to Tom H. Foulds and Associated Counsel, Hanford Litigation Office, Seattle, WA on "Radiation Doses from Exposure of the Population Surrounding the Hanford Reservation to Plutonium Released to the Atmosphere."
- 1996 Consultant to the National Research Council/National Academy of Sciences Committee on Biological Effects of Ionizing Radiation (BEIR VI) on doses to lung cells from radon and its progeny.
- 1996-99 Consultant to the U.S. Environmental Protection Agency (EPA), National Center for Environmental Assessment, Research Triangle Park, NC to review and revise the

current modeling approach used in the U.S. EPA's Reference Concentration (RFC) methods to calculate a regional deposited dose ratio (RDDR) as a dosimetry adjustment for interspecies extrapolation of toxicology findings from the five common laboratory animal species (rat, mouse, hamster, guinea pig, and rabbit) to the human.

- 1995-96 Consultant to the U.S. Environmental Protection Agency (EPA), National Center for Environmental Assessment, Research Triangle Park, NC on revising and finalizing the EPA document, *Air Quality Criteria for Particulate Matter* (PM AQCD), based on comments received from the Agency's Clean Air Scientific Advisory Committee (CASAC) and from the public.
- 1995-96 Delegated U.S. expert for the U.S. Nuclear Regulatory Commission/Commission of the European Communities (USNRC/CEC) study of "Uncertainties in Radiological Consequences."
- 1995 Consultant to the Florida Institute of Phosphate Research regarding doses and risks from proposed uses of waste product phosphogypsum (PG).
- 1995 Internal dosimetry consultant and expert witness for Southern California Edison, San Diego Gas and Electric, and Combustion Engineering, Inc., in the case brought by Glen and Doreth James in the United States District Court, Southern District of California concerning a claimed exposure of Mr. James to fuel "flea" particles at the San Onofre Nuclear Generating Station (S.O.N.G.S), and claimed causation of his chronic myelogenous leukemia (CML).

U.S. Consultancy Work (on behalf of Battelle Memorial Institute)

- 1994 Expert Witness for Dow Chemical Company, Rockwell International Corporation, the Travelers Insurance Company, and the Colorado Division of Labor in the Workers' Compensation case claimed on behalf of William K. Billingsley (Deceased) concerning reconstruction of lung dose in a plutonium worker (and cigarette smoker) from tissue analysis results at autopsy.
- 1994 Consultant to the Australian Federal Government's Department of Human Services and Health, and invited overseas expert for the Special Workshop on *Physical Factors in Radon Progeny Risks*, Queensland University of Technology, Brisbane, Australia, November 26, 1994.
- 1993 Presenter of Summer School on Radiation Protection for the South African Association of Physicists in Medicine and Biology, Bloemfontein, Orange Free State, March 11-12, 1993.
- 1992 Consultant to the Australian Radiation Protection Society and invited overseas expert for the *International Workshop on the Health Effects of Inhaled Radionuclides: Implications for Radiation Protection in Mining*, Jabiru, Northern Territory, September 25, 1992.

- 1990 Member of Expert Panel to Review the *Industrial Disease Standards Panel Report on the Ontario Uranium Mining Industry* for the Workers' Compensation Board, Ontario, Canada.
- 1989 Expert Witness for British Nuclear Fuels (BNF) plc in the London High Court Case of *Merlin v BNF* concerning lung dose from exposure to plutonium in house dust.

Selected Invited Presentations (post-1993)

2009:

Plutonium Exposure in Perspective: A Dose of Reality. Presented to a Joint Meeting of the Hanford Advisory Board's (HAB) River & Plateau Committee (RAP) and Health, Safety & Environmental Protection Committee (HSEP), Federal Building, Richland, WA, January 8, 2009.

2008:

Beryllium in the Tissues of Weapons-site Workers. Presented at the 3rd International Symposium on "Beryllium Particles and Their Detection," Albuquerque, NM, November 17-19, 2008. <http://www.sandia.gov/BHSC/events/documents/11-18PMJamesUSTUR-0252-08.pdf>.

DOE's U.S. Transuranium & Uranium Registries: Reaping the Benefits of Lifetime Follow-up of Plutonium Worker Health and Tissue Dose. Presented at the Council for Ionizing Radiation Measurements and Standards (CIRMS) 17th Annual Meeting "Radiation Standards and Measurements at the Molecular Level," Gaithersburg, MD, October 8, 2008. Available at http://www.ustur.wsu.edu/Publications/Files_Pubs/Publications08/pdf/USTUR-0253-08.pdf.

Using In Vivo Measurements and Urine Bioassay to Characterize the Absorption of Inhaled ²⁴¹AmO₂ and Evaluate the Probability Distributions of Doses. Presented at the 42nd Annual Meeting of the Japan Health Physics Society, Okinawa, JP, June 26 -27, 2008. Available at http://www.ustur.wsu.edu/Publications/Files_Pubs/Publications08/pdf/USTUR-0245-08.pdf.

DOE's U.S. Transuranium & Uranium Registries: Reaping the Benefits of Lifetime Follow-up of Plutonium Worker Health and Tissue Dose. DOE/HS-13 Seminar, Germantown, MD, April 16, 2008.

2007:

The United States Transuranium and Uranium Registries (USTUR). Colloquium in Physics. PHYS 492, Sect 01. Pocatello, ID: Idaho State University, May 2, 2007.

2006:

The United States Transuranium and Uranium Registries (USTUR): Learning from Plutonium and Uranium Workers. Presented at the Fourth JAEA-US EPA Workshop on Radiation Risk

Assessment, Tokai Research and Development Center, Japan Atomic Energy Agency, Tokai-mura, Japan, November 7-8, 2006.

Training Workshop on the Application of IMBA Expert™ USDOE-Edition Software for Bioassay and Internal Dose Assessment. Presented to BWXT Pantex Plant health physics professionals, Amarillo, TX, August 3-4, 2006.

Training Workshop on the Application of IMBA Expert™ USDOE-Edition Software for Bioassay and Internal Dose Assessment. Presented to Idaho National Laboratory health physics professionals and graduate students of Idaho State University Physics Department. Idaho State University, Pocatello, ID, May 25-26, 2006.

USTUR Whole Body Case 0682: 23-y Follow-up of the ²³⁸Pu Glove Box Explosion at Mound Laboratory. Presented to the Cincinnati Radiation Society, Cincinnati, OH, April 18, 2006.

The US Transuranium & Uranium Registries (USTUR): Learning from People Living Long, Healthy Lives with Body Burdens of Plutonium! Joint Radiological and Nuclear Engineering Seminar, University of Cincinnati/Ohio State University, Cincinnati, OH, April 18, 2006.

Training Workshop on the Application of IMBA Expert™ CANDU-Edition Software for Bioassay and Internal Dose Assessment. Presented to internal dosimetry specialists of the CANDU Owners Group (Ontario, New Brunswick and Quebec) and the Canadian Nuclear Safety Commission. Ontario Power Generation (OPG) Nuclear, Whitby, ON, Canada, February 17, 2006.

2005:

Occupational Internal Dosimetry, Past, Present and Future: The Actinide Example. Faculty presentation at the Health Physics Society Summer School: “Operational Health Physics: Planning and Implementation”, Gonzaga University, Spokane, WA, July 5-8, 2005.

2004:

Implementing the ICRP Publication 66 Respiratory Tract Models. Faculty Presentation in the American Academy of Health Physics (AAHP) Course 1 – “Intakes and Doses.” Faculty presentation at the Health Physics 2004 Midyear Topical Meeting on “Air Monitoring and Internal Dosimetry”, Augusta, GA, February 7, 2004.

Use of the IMBA Expert™ OCAS-Edition Software (Version 3.2). Presented at the Internal Dosimetry Training Course, Oak Ridge Associated Universities (ORAU) Energy Employees’ Occupational Illness Compensation Program Dose Reconstruction Project, Cincinnati, OH, April 20, 2004.

Training Workshop on the Application of IMBA Expert™ USDOE-Edition Software for Bioassay and Internal Dose Assessment. Presented to Idaho National Laboratory and Advanced Mixed Waste Treatment Facility health physics professionals and graduate students of Idaho State University Physics Department. Pocatello, ID: Idaho State University, April 28-29, 2006.

Software Applications of the ICRP HRTM (ICRP 66) and Current ICRP Biokinetic Models. Physics-g434 Internal Dosimetry Course, Idaho State University, Pocatello, ID, April 28, 2004.

2003:

Software and Applications of the ICRP Human Respiratory Tract Model for Health Physics and Industrial Hygiene (PEP-M2). Presented (with Dr. Mark Hoover, NIOSH, Morgantown, WV) in the Health Physics Society Professional Enrichment Program (PEP), 48th Annual Meeting, San Diego, CA, July 21, 2003.

2002:

Applying the ICRP Publication 66 Respiratory Tract Models. Faculty Presentation at the Health Physics Society Summer School: “Practical Applications of Internal Dosimetry”, University of Florida, Gainesville, FL, June 9-14, 2002.

Case Studies with IMBA Expert™ USDOE-Edition (Phase I) Software. Faculty Presentation at the Health Physics Society Summer School: “Practical Applications of Internal Dosimetry”, University of Florida, Gainesville, FL, June 9-14, 2002.

IMBA Expert™: Software for Implementing ICRP’s Current Bioassay and Internal Dosimetry Recommendations. Seminar presented to Radiation Protection Managers of the Korean Hydraulic & Nuclear Power Company (KHNPC), Korean Institute for Nuclear Safety (KINS), Taejon, Republic of Korea, November 5, 2002.

IMBA Expert™: Software for Implementing ICRP’s Current Bioassay and Internal Dosimetry Recommendations. Seminar Presented to the Radiation Protection Division, Japan Nuclear Cycle Development Institute (JNC), Tokai-mura, Japan, November 5, 2002.

1996:

The New ICRP Lung Model: How Should It Be Applied For Radon And Thoron Progeny. Special Colloquium Presented at the BfS Information Center and RADIZ, Schlema, Germany, January 29, 1996.

Radon Dosimetry: How Should We Apply Field Information on Radon Progeny Aerosol Size to Refine ICRP’s “Dose Convention?” Presented at the Special Radon Colloquium to Celebrate the 60th Birthday of Prof. Dr. Justin Porstendörfer, “Health Risk from Radon: Basics, History, and Current Information,” University of Göttingen, Germany, September 13, 1996.

1995:

An Update of the NRC’s (1991) Dosimetry Study Based on ICRP Publication 66 Recommendations. Presented at the BEIR VI Committee of the National Research Council’s Mini-Workshop on *Radon and Thoron in the Lung: Comparative Dosimetry*, June 4, 1995, Montréal, Québec, Canada.

1994:

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