



**CURRICULUM VITAE
WESLEY E. BOLCH**

*Director, Advanced Laboratory for Radiation Dosimetry Studies (ALRADS)
J. Crayton Pruitt Family Department of Biomedical Engineering
P.O. Box 116131, 1275 Center Drive, University of Florida
Gainesville, Florida 32611-6131
(352) 273-0303 (Office)
(352) 214-7905 (Cell)
(352) 294-7126 (Fax)*

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GENERAL INFORMATION

Education

| <u>Year</u> | <u>University</u> | <u>Location</u> | <u>Degree</u> |
|-------------|-----------------------|-----------------|--|
| 1984 | University of Florida | Gainesville, FL | BSE in Environ Engineering (High Honors) |
| 1986 | University of Florida | Gainesville, FL | ME in Radiological Physics |
| 1988 | University of Florida | Gainesville, FL | PhD in Radiological Physics |

Professional Certification and Registration

| | |
|----------------|--|
| 1992 - Present | Professional Engineer, State of Texas, PE #73421 |
| 1994 - Present | American Board of Health Physics |

Positions Held

Administration

| | |
|-------------|--|
| 2015 – 2017 | Associate Dean for Academic Affairs, College of Engineering, UF |
| 2014 | Interim Associate Dean for Academic Affairs, College of Engineering, UF |
| 2003 – 2010 | Graduate Coordinator, Dept. of Nuclear & Radiological Engineering, UF |
| 2000 – 2010 | Director, Health Physics Graduate Program, University of Florida |
| 1996 – 2000 | NRE Departmental Coordinator, Biomedical Engineering Graduate Program, Dept of Nuclear & Radiological Engineering, University of Florida |
| 1995 – 2000 | Director, Medical Physics Graduate Program, University of Florida |
| 1992 – 1994 | Director, Health Physics Graduate Program, Texas A&M University |

Academic

| | |
|----------------|---|
| 2020 – Present | Distinguished Professor, Radiological & Biomedical Engineering, UF |
| 2001 – 2020 | Professor, Radiological & Biomedical Engineering, UF |
| 1998 – 2001 | Associate Professor, Biomedical Engineering Program, University of Florida |
| 1995 – 2001 | Associate Professor, Radiological & Biomedical Engineering, Department of Nuclear & Radiological Engineering, University of Florida |
| 1994 | Associate Professor, Dept of Nuclear Engineering, Texas A&M University |
| 1988 – 1994 | Assistant Professor, Dept of Nuclear Engineering, Texas A&M University |

Courtesy

| | |
|----------------|--|
| 2017 – Present | Affiliate Professor, Dept. of Radiology, College of Medicine, UF |
| 2011 – Present | Affiliate Professor, Nuclear Engineering Program, UF |
| 2007 – Present | Affiliate Professor, Dept. of Small Animal Clinical Sciences, Veterinary College, UF |
| 2007 – Present | Affiliate Professor, Dept. of Pediatrics, Division of Oncology and Hematology, UF |
| 2004 – 2010 | Research Associate, Florida Institute for Nuclear Detection and Security (FINDS) |

Graduate Student

| | |
|-------------|--|
| 1986 – 1988 | Doctoral Research Assistant, Health & Safety Research Division, Oak Ridge National Laboratory |
| 1985 – 1988 | U.S. Department of Energy, Health Physics Fellow |
| 1981 – 1985 | Student Research Assistant, Environmental Surveillance Program, Crystal River Nuclear Power Station, Dept. of Environmental Engineering Sciences, UF |
| 1983 – 1984 | Student Research Assistant, US NRC, Radiation Monitoring Program |

Significant Honors, Awards, and Appointments

| | |
|------|---|
| 2021 | University of Florida Term Professorship, 2021-2024 |
| 2020 | Fellow, American Institute for Medical and Biological Engineering (AIMBE) |
| 2020 | Doctoral Dissertation Advisor / Mentor Award, University of Florida Level Award |
| 2019 | Doctoral Dissertation Advisor / Mentor Award, HW College of Engineering Level Award |
| 2019 | University of Florida Term Professorship, 2019 - 2021 |
| 2014 | Distinguished Scientific Achievement Award, Health Physics Society |
| 2012 | Robert's Prize – Best Paper for 2011 [<i>Phys Med Biol</i> 56 : 2309-2346 (2011)] |
| 2012 | Fellow, Health Physics Society (HPS) |
| 2012 | Fellow, American Association of Physicists in Medicine (AAPM) |
| 2011 | Institute of Physics Highlights of 2011 [<i>Phys Med Biol</i> 56 3137–3161 (2011)] |
| 2011 | Institute of Physics Highlights of 2011 [<i>Phys Med Biol</i> 56 2309-2356 (2011)] |
| 2010 | Institute of Physics Highlights of 2010 [<i>Phys Med Biol</i> 55 1785–1814 (2010)] |
| 2009 | Institute of Physics Select Paper Award [<i>Phys Med Biol</i> 54 3613-3629 (2009)] |
| 2007 | International Educator of the Year for the UF College of Engineering |
| 2007 | Institute of Physics Select Paper Award [<i>Phys Med Biol</i> 52 3309-3333 (2007)] |
| 2006 | Appointed, University of Florida Research Foundation Professor for 2006-2009 |
| 2005 | Appointed, Member of Committee 2 and Chair of DOCAL Task Group, International Commission on Radiological Protection (ICRP) |
| 2005 | Appointed, Member of the Main Council, National Council on Radiation Protection |
| 2003 | Institute of Physics Select Paper Award [<i>Phys Med Biol</i> 48 805-820 (2003)] |
| 2003 | Teacher/Scholar of the Year, College of Engineering, University of Florida |
| 1998 | Teaching Improvement Program (TIP) Award, University of Florida |
| 1996 | Health Physics Faculty Research Award, U.S. Department of Energy |
| 1993 | Appointed, Medical Internal Radiation Dose (MIRD) Committee, Society of Nuclear Med. |
| 1993 | Elda E. Anderson Award, Health Physics Society (Outstanding Young Health Physicist) |
| 1992 | Health Physics Faculty Research Award, U.S. Department of Energy |

Academic Societies

Tau Beta Pi (Engineering Honors)

Epsilon Lambda Chi (Engineering Leadership)

Phi Kappa Phi (Academic Honors)

Sigma Xi (Scientific Honors)

Professional Organizations – Membership

| <u>Organizational Name</u> | <u>Acronym</u> | <u>Membership Date</u> |
|---|----------------|------------------------|
| American Academy of Health Physics | AAHP | 1994 |
| American Association for the Advancement of Science | AAAS | 1988 |
| American Association of Physicists in Medicine | AAPM | 1993 |
| American Society of Engineering Education | ASEE | 2012 |
| American Nuclear Society | ANS | 1980 |
| Biomedical Engineering Society | BMES | 2018 |
| European Association of Nuclear Medicine | EANM | 2020 |
| Health Physics Society | HPS | 1980 |
| Society of Nuclear Medicine and Molecular Imaging | SNM | 1991 |
| Radiological Society of North America | RSNA | 2012 |

ACADEMIC LEADERSHIP

Associate Dean for Academic Affairs (ADAA), Herbert Wertheim College of Engineering (HWCOE)
2014 – 2017

Leadership Initiatives

- **Standardized Operations of Faculty College Committees:** The ADAA is responsible for overseeing the operation of four standing support committees to its engineering faculty: *Tenure and Promotion Committee*, *Honors and Awards Committee*, *Sabbatical and Professional Development Leave Committee*, and *Curriculum Committee*. In 2015, I worked closely with the Engineering Faculty Council to substantially amend the College Constitution to standardize committee membership and term rotation schedule to better delineate the missions of these committees and to ensure equitable departmental representation in each. Other committee-related initiatives included revamping and clarification of (1) the Tenure and Promotion Packet, (2) the Sabbatical Application Packet, and (3) procedures for junior faculty Mid-Tenure Review.
- **Established College Peer Teaching Assessment Committee:** In 2016, I established a new faculty committee devoted to peer teaching assessment. A pilot program of the PTA committee was established whereby two reviews are conducted prior to mid-tenure review, and one prior to review for promotion to Associate Professor. Peer assessment is performed by a team of two members selected from the college committee. The team meets prior to the start of the semester to review the course syllabus and materials, as well as the faculty's educational goals and objectives. Following in-class assessment, the team meets with the faculty member to review their findings, after which an action plan is developed to implement suggested changes.
- **Developed Catalog of External Faculty Professional Awards:** In 2015, I established a comprehensive catalog of some 800+ external engineering-related professional society faculty awards that are presently tracked within Academic Analytics. For each award, the catalog provides information on the governing society, award name, award description, eligibility, website link, nomination packet content, application deadlines (month), and list of past five awardees. Current efforts are to establish an electronic tracking database for faculty nominations and re-nominations.
- **Developed Expanded Program for Graduate Student Recruitment:** In 2014, I worked closely with our newly hired Director of Graduate Recruiting to establish a four-step program for enhanced PhD student recruitment in the college. The goals of the program continue to be increased quantity, quality, and diversity of PhD student applicants to our various engineering programs. First, through our Engineering Leadership Institute, we established ENGINE – *Engineering National Graduate institutional Name Exchange*. This web-based database provides FERPA-compliant junior and senior student contact information from some 80+ engineering programs across the nation. Second, we launched our Junior Visitation program whereby 3.5+ GPA junior engineering students – selected from ENGINE – are invited to campus for a two-day college/department orientation and recruitment program. Heavy emphasis is placed on female and under-represented minorities. Following Junior Visit, promising future PhD recruits are invited back to the UF campus for SURF – Summer Undergraduate Research at Florida – to include 8-10 weeks laboratory experience overlaid with weekly workshops on ethics, engineering innovation and leadership, career planning, life skills, along with social events. Provost funding was sought to pilot this program starting Summer of 2017. The final step of the program is our Spring Visit following PhD admission and student funding offers. The entire program expands our college and faculty recruiting efforts a full year prior to the semester of student application.
- **Expanded Responsibilities of the Engineering Graduate Student Council (EGSC):** My predecessor in the Office of Academic Affairs had established the Engineering Graduate Student Council composed of two graduate students from each engineering department. In 2015, I expanded their responsibilities and established monthly meetings of both the Council and Council officers. Major initiatives have included: (1) major support to our graduate student recruiting program for both the Junior Visit and Spring Visit, (2) establishment of a Best Practice Guidebook for faculty advisors and departmental administrators regarding

their doctoral programs, (3) program for monitoring and reporting classroom cheating, and (4) launch of a bimonthly Engineering Graduate Student Newsletter highlighting campus and college-wide support services.

- **Launched Series of Faculty and Graduate Student Onboarding Workshops:** Starting in 2015, I worked closely with the Associate Dean for Undergraduate Student Affairs and the Director for Graduate Recruiting to develop and offer a variety of welcome and orientation sessions for both faculty and graduate students. These included the following sessions below featuring information from the UF International Center, UF Teaching Center, UF Writing Studio, Career Resource Center, and Counseling and Wellness Center.
 - *Welcome for New PhD Students*
 - *Welcome for New International Students*
 - *Welcome for Under-represented Minority PhD Students*
 - *Welcome for LGBT Students – both graduate and undergraduate*
 - *Workshop on NSF Graduate Research Fellowships*
 - *Faculty Workshop on ASEE Safe Zone Training*
 - *New Faculty Orientations – invited speakers from all college offices and programs*

Membership in University Academic Committees

- Member, Graduate Curriculum Committee (Associate Dean of the Graduate School)
- Member, Work Group on Self-Funded Programs (Associate Provost)
- Member, Council of Academic Associate Deans (Associate Provost)
 - *Focus on collective bargaining agreements with both faculty and graduate students*
- Member, Committee to Review Criteria for Distinguished Professors (Associate Provost)
- Member, Executive Committee of the Herbert Wertheim College of Engineering (Dean)

Leadership Training

- Institute for Academic Leadership Chairs Workshop (June and October 2015)
- UF Advanced Leadership for Academics and Professionals Program (August 2015 – April 2016)

PROFESSIONAL SERVICE

Institutional Consortia

Alliance for Radiological Exposures and Mitigation Science (ALLREMS)

2021 – Present Founding Member
Member Organizations – University of Florida, Georgia Institute of Technology, Northwestern University, University of California – Berkeley, Oak Ridge Associated Universities, Oak Ridge National Laboratory
Current Funding: DoD Focus Award, NIAID P01 Program Grant

Professional Society and Federal Agency Activities

American College of Radiology (ACR)

2011 – 2016 National Lung Screening Trial, ACR Medical Physics Working Group

American Association of Physicists in Medicine (AAPM)

2021 – Present Member, Radiopharmaceutical Therapy Subcommittee (RTSC)
2013 – Present Member, Task Group No. 246 – Patient Dose from Diagnostic Imaging
2012 – Present Member, Task Group No. 321 – Dosimetry in Radiographic Tomosynthesis Imaging
2018 – 2020 Member, Ad-Hoc Task Group on Radionuclide Therapy
2014 – 2017 Member, Task Group No. 268 – Guidelines for Publication of Monte Carlo Studies

American Institute for Medical and Biological Engineering (AIMBE)

2020 – Present Member, College of Fellows

American National Standards Institute (ANSI)

2010 – 2014 ANSI/HPS N13.44 – Thyroid Phantom Used in Occupational Monitoring
2005 – 2009 ANSI/HPS N43.17 – Personnel Security Screening Systems Using X-Ray Radiation

American Nuclear Society (ANS)

1989-1992 Faculty Advisor, Texas A&M Student Branch

Department of Health and Human Services (DHHS): Food and Drug Administration (FDA)

2017 – Present Member, Medical Imaging Drugs Advisory Committee (MIDAC)
2017 – Present Special Government Employee (SGE)
2019 Agency Directed Assignment

Health Physics Society (HPS)

2003 – 2011 Faculty Advisor, University of Florida Student Branch
2003 – 2006 Member, Nominating Committee
2000 – 2003 Member, Board of Directors
2000 – 2003 Member, Finance Committee
1998 – 2009 Member, HP Accreditation Subcommittee, Academic Education Committee
1998 – 1999 Co-Chair, Academic Education Committee
1997 – 1998 Lecturer, Continuing Education Session
1996 Lecturer, Summer School on External Radiation Dosimetry
1994 Lecturer, Summer School on Internal Radiation Dosimetry
1992 – 1998 Lecturer, Professional Enrichment Program
1992 – 1997 Chair, Academic Education Committee
1991 – 1994 Faculty Advisor, Texas A&M Student Branch
1991 – 1992 Co-Chair, Academic Education Committee
1990 – 1991 Member, Manpower and Professional Education Committee

Health Physics Society – Florida Chapter (FLHPS)

2003 – 2004 President
2002 – 2003 President-Elect
1999 – 2002 Executive Council Member

Health Physics Society – South Texas Chapter (STCHPS)

1994 – 1995 President-Elect, Elected
1992 – 1994 Secretary and Executive Council Member, Elected
1990 – 1994 Chair, Student Assistance Committee, Appointed

Health Physics Program Directors Organization (HPPDO)

1999 – 2005 Chair

International Commission on Radiological Protection (ICRP)

2019 – Present Member, ICRP Task Group 113 on Reference Dose Coefficients for Medical Imaging
2013 – Present Member, ICRP Task Group 103 on Mesh-Type Computational Phantoms
2009 – Present Corresponding Member, ICRP Task Group 36 on Radiopharmaceuticals
2012 – 2021 Secretary, ICRP committee 2 on Dosimetry Calculations
2013 – 2021 Chair, ICRP Task Group 96 on Computational Phantoms and Radiation Transport
2013 – 2020 Member, ICRP Task Group 90 on Environmental Dose Coefficients
2013 – 2020 Member, ICRP Task Group 101 on Radionuclide Therapy
2012 – 2020 Corresponding Member, ICRP Task Group 74 on Dosimetry of Non-Human Species
2012 – 2020 Corresponding Member, ICRP Task Group 79 on Effective Dose
2005 – 2013 Chair, ICRP Task Group 4 on Dose Calculations (DOCAL)
2005 – 2012 Member, ICRP Committee 2 on Dosimetry Calculations

International Commission on Radiation Units and Measurements (ICRU)

2017 – Present Member, ICRU Report Committee 31 on Radionuclide Therapy Treatment Planning

National Council on Radiation Protection and Measurement (NCRP)

2019 – Present Member, NCRP Board of Directors
2005 – Present Member, Main Council of the NCRP
2005 – Present Member, Program Area Committee 6 (Radiation Measurements and Dosimetry)
2017 – 2020 Member, Scientific Committee 4-9 (Medical Exposures to the U.S. Population)
2005 – 2010 Member, Scientific Committee 6-3 (Uncertainties in Internal Dosimetry)
2004 – 2010 Member, Scientific Committee 4-1 (Management of Contaminated Persons)

National Institutes of Health, Center for Scientific Review

2020 – Present Full Member, Radiation Therapeutics and Biology (RTB) Study Section
2017 – 2021 Temporary Member, Radiation Therapeutics and Biology (RTB) Study Section
2020 Member, NCI Special Emphasis Panel, ZCA1 SRB-2 (O2), Radiobiology of high-LET Radiations
2020 Member, NIBIB Special Emphasis Panel, ZEB1 OSR-B (O1), P41 Biomed Tech Resource Center
2020 Member, NIAID Special Emphasis Panel ZAI1 SB-I (C1), Radiation/Nuclear Medical CMs

Society of Nuclear Medicine and Molecular Imaging (SNMMI)

1993 – Present Member and Secretary, Medical Internal Radiation Dose (MIRD) Committee
2009 – 2019 Leader, MIRD Task Group on Alternatives to the Effective Dose
2009 – 2019 Leader, MIRD Task Group on Hybrid Phantoms and Skeletal Models
2001 – 2005 Member, MIRD Task Group on Normal Tissue Dose Response
2000 Member, Scientific Program Committee, Dosimetry/Radiobiology Sessions
1997 – 2003 Leader, MIRD Task Group on Dosimetric Models of the Kidneys
1995 – 2004 Member, Radiobiological Effects of Ionizing Radiation (REIR) Committee

1995 Sub-chairman, Dosimetry/Radiobiology Sessions
1994 – 1999 Leader, MIRD Task Group on Dosimetric Models of the Head and Brain, Appointed
1993 – 1999 Lecturer, MIRD Categorical Seminar and Continuing Education Sessions
1993 Member, Scientific Program Committee, Dosimetry/Radiobiology Sessions

United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)

2015 – Present Member, United States Delegation
2019 – Present Coordinating Lead Writer, Report on Second Primary Cancers after Radiotherapy

Editorial Board Memberships

Frontiers in Nuclear Medicine

2021 – Present Associate Editor, *Frontiers in Nuclear Medicine*

Health Physics Society (HPS)

2002 – Present Associate Editor, *Health Physics*

Society of Nuclear Medicine (SNM)

2002 – Present Member, Editorial Board, *The Journal of Nuclear Medicine*

Institute of Physics (IOP)

2006 – Present Member, Editorial Board, *Physics in Medicine and Biology*

Springer-Verlag Publishers

2008 – Present Member, Editorial Board, *Radiation and Environmental Biophysics*

French Society for Radiological Protection (SFRP)

2015 – Present Member, Internal Corresponding Editor, *Radioprotection*

External Advisory Boards

NIBIB Center for Virtual Imaging Trials (NIH P41), Duke University

2021 – Present Chair, External Advisory Board

Nuclear Engineering Department, University of Michigan

2010 – 2012 Member, External Advisory Board

Technical Program Committees

American Association of Physicists in Medicine (AAPM)

Abstract Reviewer, Scientific Program Committee, 2012 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2013 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2014 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2015 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2016 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2017 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2018 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2019 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2020 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2020 Annual Meeting

European Association of Nuclear Medicine (EANM)

Session Chair, e-Poster Presentation Session 9 – Dosimetry, 2019 Annual Meeting
Session Chair, Radiological Protection in Therapy with Radiopharmaceuticals, 2019 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2021 Annual Meeting

International Atomic Energy Agency (IAEA)

Co-Director, IAEA Workshop on Internal Dosimetry, November 2016, Trieste, Italy

International Symposium on Internal Dosimetry of Radionuclides

Member of the Scientific Committee, Vienna, Austria, October 11-15, 2010

International Symposium on Standards and Quality Assurance in Medical Dosimetry

Chair, Session on Internal Dosimetry – Computational Phantoms and Radiological Modeling
International Atomic Energy Agency, Vienna, Austria, November 9-12, 2010

International Symposium on Targeted Radiotherapy and Dosimetry (ISTARD)

Member, Technical Program Committee, Toronto, Canada, June 12-16, 2004

Member, Technical Program Committee, Toronto, Canada, June 13-17, 2009

International Workshop on Computational Phantoms

Member, International Steering Committee (2011 – Present)

Session Chair, 3rd International Workshop, Beijing, China, August 8-9, 2011

National Council on Radiation Protection and Measurements (NCRP)

Session Chair on Radiation Dosimetry, Annual Meeting, Bethesda, MD, March 10-11, 2014

Radiation Research Society

Session Chair, Computational Phantoms for Epidemiological Studies, 2020 RRS Meeting, October 20, 2020.

Society of Nuclear Medicine and Molecular Imaging (SNMMI)

Coordinator, MIRD Committee Continuing Education Session, June 15, 2008

Session Chair, Dosimetry and Data Analysis, 2011 Annual Meeting, June 6, 2011

Coordinator, MIRD Committee Continuing Education Session, June 10, 2012

Coordinator, MIRD Committee Continuing Education Session, June 8, 2014

Coordinator, MIRD Committee Continuing Education Session, June 11, 2017

Coordinator, Physics, Instrumentation, Data Sciences Council Continuing Education Session, June 24, 2019

Reviews – Journals/Books (since 2005)

Applied Radiation & Isotopes

BMC Medical Imaging

Cancer Biotherapy and Radiopharmaceuticals

Computer Programs and Methods in Biomedicine

ETRI Journal

European Journal of Nuclear Medicine

Health Physics

IEEE Transactions on Nuclear Science

Imaging and Vision Computing

International Journal of Computing Assisted Radiology & Surgery

International Journal of Environmental Research and Public Health

International Journal of Molecular Imaging

International Journal of Radiation Biology

International Journal of Radiation Oncology, Biology, and Physics

Journal of Applied Clinical Medical Physics

Journal of Computer Assisted Radiology and Surgery

Journal of X-ray Science and Technology

Medical Dosimetry

Medical Physics

Radiation Measurements

Radiation Research

Radiation Protection Dosimetry

Radioprotection

Proceedings of the IEEE

Proceedings of the Mayo Clinic

Science of the Total Environment

Reviews – Grants

Reviewer, U.S. Department of Energy, Office of Health and Environmental Research (1993, 1995)

Reviewer, U.S. Department of Energy, Office of Nuclear Energy (NEER Program) (2000 – 2010)

Reviewer, National Institute for Occupational Safety & Health (NIOSH), Special Emphasis Panel,
(1998, 2002, 2004, 2012, 2013, 2015, 2016, 2017, 2019)

Site Reviewer, National Institute for Occupational Safety & Health (NIOSH),
 Training Grant Program (TPG), (2000, 2003, 2004)
 Site Reviewer, National Institute for Occupational Safety & Health (NIOSH),
 Education and Research Center (ERG), (2007)
 Reviewer, U.S. Department of Energy, Office of Health and Biomedical Research (2004)
 Reviewer, Swiss National Science Foundation (2011)
 Reviewer, Australian National Health and Medical Research (2014)
 Reviewer, National Institute for Biomedical Engineering and Bioengineering, F32 Program (2015)
 Reviewer, INSERM – French National Institute of Health and Medical Research (2018)
 Reviewer, Polish National Science Foundation (2019)

Reviews – Governmental Reports

Reviewer, National Council on Radiation Protection and Measurements (NCRP)
Presidential Report on Radiation Protection Advice for the Pulsed Fast Neutron System Used in Security Surveillance. (July 2003)
 Reviewer, Battelle Memorial Institute, Eastern Regional Technology Center
Proposed Approaches for Calculating Radiological and Chemical Doses from Inhaled and Ingested Depleted Uranium (May 2003)
 Reviewer, Battelle Memorial Institute, Eastern Regional Technology Center
Human Health Risk Assessment for Capstone Depleted Uranium Aerosols (December 2003)

University Activities

University of Florida

2021 – Present Member, Faculty Search Committee, Cancer Control and Population Sciences Program
 2019 – Present Member, UF Faculty Senate
 2017 – Present Chair, Radiation Control Committee
 2015 – Present Faculty Advisor, Be The Match On Campus (Society Promoting Bone Marrow Donation)
 2021 – 2021 Faculty Doctoral Dissertation Advisor/Mentoring Award Selection Committee
 2016 – 2018 Chair, Reactor Safety Review Subcommittee
 2002 Member, Faculty Task Group on UF Research One Programs
 2011 – 2013 Chair, Reactor Safety Review Subcommittee
 2011 – 2016 Member, Radiation Control Committee
 2001 – 2002 Member, International Focus Subcommittee on Teaching
 2004 – Present Member, UF Shands Cancer Center
 1997 Search Committee Member, Department of Radiology
 1996 – 1999 Member, Computer Core Advisory Committee, Center for Structural Biology
 1996 – Present Member, UF McKnight Brain Institute
 1996 – 1999 Member, 4.7 T Advisory Committee, Center for Structural Biology
 1996 Reviewer, Interdisciplinary Research Initiative, ORTGE
 1995 - 1999 Minority Mentor Program

Texas A&M

1993 – 1994 Member, University Reactor Safety Board
 1992 Search Committee Member, Department of Veterinary Physiology & Pharmacology
 1991 – 194 Texas A&M Chapter of Sigma Xi, Member, Interdisciplinary Research Taskforce
 1991 Organizer, Campus Workshop, *Electronic Communication and Data Retrieval*

College Activities

University of Florida

2020 – Present Member, HW College of Engineering Faculty Sabbatical Committee
 2020 – Present Member, Team-based Interdisciplinary Cancer Research Training (TICaRT) Program

2013 – Present Member, Institute of Computational Engineering
 2012 – Present Member, KL2 Mentor Advisor Committee, UF Clinical and Translational Sci Inst
 2018 – 2019 Member, Faculty Search Committee, Nuclear Engineering Program, MSE Department
 2011 – 2012 Member, Department of Biomedical Engineering Chair Search Committee
 2010 – 2013 Chair, Tenure and Promotion Committee, Appointed
 2007 – 2010 Member, Tenure and Promotion Committee, Elected
 2006 – 2008 Member, Honors and Awards Committee, Elected
 2004 Member, Review Committee for the Office of Engineering Research, Appointed
 2003 – 2004 Chair, Sabbatical Leave Review Committee, Appointed
 2002 Member, Sabbatical Leave Review Committee, Elected
 2001 – 2002 Member, Search Committee for Chair of Biomedical Engineering, Appointed
 1999 – 2006 Member, Scholarship, Fellowship & Awards Committee, Elected
 1998 – 2006 Member, Academic Committee, Appointed
 1998 – 2001 Member, Public Relations Subcommittee, Appointed
 1998 Member, Computational Resources Committee, Appointed
 1997 – 2002 Member, Biomedical Engineering Program, Appointed
 1995 – 2001 Chair, College of Engineering Core Program Task Committee, Appointed
 1995 – 1997 Member, Biomedical Engineering Grad Academic Program Committee, Appointed

Texas A&M

1990-1992 Scholarship, Honors, and Awards Committee, Appointed

Departmental Activities

University of Florida

2021 – Present Member BME Department Undergraduate Program Committee
 2021 – Present Member BME Department Inclusion, Diversity, Equity, and Access (IDEA) Faculty Committee
 2018 – Present Member, BME Department Awards Committee
 2018 – Present Member, BME Department Representative to the HWCOE Faculty Council
 2018 – 2021 Member, BME Department Research Committee
 2018 – 2021 Member, BME Department Graduate Program Committee
 2018 – 2019 Member, BME Department Faculty Search Committee
 2011 – 2014 Chair, BME Department Executive Committee
 2011 – 2014 Member, BME Department Undergraduate Affairs Committee
 2011 – 2014 Coordinator, Medical Physics Track, BME Undergraduate Program
 2011 – 2012 Members, BME Department Faculty Search Committee
 2003 – 2011 NRE Graduate Coordinator, Appointed
 2000 – 2011 Director, Health Physics Graduate Program, Appointed
 2000 – 2001 Chair, Department Chair Search Committee, Appointed
 1995 – 2000 Member, Research Space and Laboratory Instrumentation Committee, Appointed
 1995 – 2000 Director, Medical Physics Graduate Program, Appointed

Texas A&M

1992 – 1994 University Coordinator, U.S. Department of Energy Fellowship Programs
 1992 – 1994 Program Director, Health Physics and Radiological Health Engineering Programs
 1992 EAC-ABET Coordinator, Radiological Health Engineering Program
 1991 – 1994 Texas A&M Student Branch of the Health Physics Society, Advisor

CONSULTING

Radiological Engineering Services, LLC

Wesley E. Bolch, PhD, PE, CHP, President and CEO

2005 – 2012 Essex Woodlands Health Ventures

2006 – 2013 Oraya Therapeutics

Wesley E. Bolch

PUBLICATIONS

Key: *Bold* = corresponding author, *F* = fellow or research intern, *G* = graduate student, *U* = undergraduate student, *P* = postdoctoral researcher, *R* = medical or medical physics resident, *M* = medical student, *A* = alumni / former MS or PhD student., *AOP* = Ahead of Print

Books and Book Chapters

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18. [WE Bolch](#), “Hybrid computational phantoms for medical dose reconstruction”, National Cancer Institute Conference on Late Health Effects of Ionizing Radiation, Washington, DC, May 4-6, 2009. [\[Invited Presentation\]](#)
19. Pafundi DG, Lee CP, Watchman CG, Bourke VP, Aris J, and [Bolch WE](#), “Image-based skeletal dosimetry models for the ICRP reference pediatric series”, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 70P (2009)].
20. Lee CP, Lodwick DG, and [Bolch WE](#), “Assessment of photon and electron internal organ dose for the University of Florida hybrid computational phantoms of the ICRP 89 rWeference male and female 1, 5, and 10-year-old”, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 163P (2009)]
21. Bourke VAP, Watchman CG, Dieudonne AF, and [Bolch WE](#), “The spatial profile of blood vessels and hematopoietic stem cells with the marrow cavities of the human skeleton”, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 70P (2009)].
22. Pichardo JCG, [WE Bolch](#), JR Forder, and RJ Milner, “Comparison of bone marrow cellularity measurements using proton nuclear magnetic resonance spectroscopy (H-NMRS) and histology performed at the same location on bone”, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 384P (2009)].
23. [Bolch WE](#), Wayson MG, and Pafundi DG, “Computational Phantoms and Skeletal Dose Models for Adult and Paediatric Internal Dosimetry”, International Symposium on Standards, Applications, and Quality Assurance in Medical Radiation Dosimetry (IDOS), International Atomic Energy Agency (IAEA), Vienna, Austria, November 9-12, 2010 [\[Invited Presentation\]](#).
24. [Bolch WE](#), “A Review of Radiological Protection Guidance in Medical Dosimetry”, 14th Congresso Federazione Nazionale, Collegi Professionali Tecnici di Radiologica Medica, Palazzo dei Congressi, Riccione, Italy, April 9, 2011 [\[Invited Plenary Speaker\]](#).
25. [Bolch WE](#), “The UF Series of Computational Hybrid Phantoms – Applications to Radiological Protection and Patient Medical Dosimetry”, 3rd International Workshop on Computational Phantoms for Radiation Protection, Imaging, and Radiation Therapy, Beijing, China, August 8-9, 2011.
26. [Bolch WE](#), “Patient specific recording of organ doses in medical imaging – applications of a new generation of computational hybrid phantoms”, 8th International Symposium on Solid State Dosimetry (ISSSD), National Institute of Nuclear Research in Mexico City, Mexico, October 15, 2012 [\[Invited Plenary Speaker\]](#).
27. Padilla LG, Wayson MG and [Bolch WE](#), “Dosimetry package with tumor insertion capabilities for nuclear medicine procedures”, 4th International Symposium on Targeted Radiotherapy and Dosimetry (ISTARD) [Supplement to *Eur J Nucl Med* **39** S186 (2012)].
28. Wayson MG, and [Bolch WE](#), “A comprehensive database of photon and electron SAFs for the UF/NCI family of computational hybrid phantoms”, 4th International Symposium on Targeted Radiotherapy and Dosimetry (ISTARD) [Supplement to *Eur J Nucl Med* **39** S320-S321 (2012)].
29. [Bolch WE](#), “Dosimetric models of the eye and eye lens and their use in assessing dose coefficients for ocular exposures”, 2nd International Symposium on the System of Radiological Protection, Abu Dhabi, United Arab Emirates, October 22-24, 2013. [\[Invited Plenary Speaker\]](#).
30. [Bolch WE](#), “The science of estimating individual risk”, International Workshop on Radiation and Thyroid Cancer (Sponsors – Japan Ministry of the Environment, Fukushima Medical University, OECD Nuclear Energy Agency), Shinagawa Prince Hotel, Tokyo, Japan, February 21-23, 2014. [\[Invited Plenary Speaker\]](#)

31. [Bolch WE](#), “Pediatric phantoms for radiation dose estimation”, International Workshop on Children and Radiation (Sponsors - World Health Organization and the OECD Nuclear Energy Agency”, Tokyo, Japan, December 8-9, 2014. [\[Invited Plenary Speaker\]](#)
32. [Bolch WE](#), “Overview of the ICRP System of Internal and External Dosimetry”, ICRP Symposium on Radiological Protection Dosimetry, The University of Tokyo, Tokyo, Japan, February 18, 2016.
33. [Bolch WE](#), Petoussi-Henss N, Paquet F, and Harrison J, “Dose coefficients of the ICRP – Their computational development and current status”, 3rd International Symposium on the System of Radiological Protection, Seoul, Korea, October 20-22, 2015. [\[Invited Plenary Speaker\]](#).
34. [Bolch WE](#), “Overview of the ICRP System of Internal and External Dosimetry”, ICRP Symposium on Radiological Protection Dosimetry – Historical Review and Current Activities, University of Tokyo, February 18, 2016. [\[Invited Plenary Speaker\]](#)
35. [Bolch WE](#), Pafundi D, Wayson M, and Johnson P, “MicroCT-based methods for assessing imaging dose to active marrow and bone endosteum,” 6th International Workshop on Computational Human Phantoms, Annapolis, MD, August 28-30, 2017. [\[Invited Presentation\]](#)
36. [Bolch WE](#), “MicroCT-based methods for assessing imaging dose to active marrow and bone endosteum,” 6th International Workshop on Computational Human Phantoms, Annapolis, MD, August 28-30, 2017. [\[Invited Plenary Speaker\]](#)
37. [Bolch WE](#), “Pediatric phantoms for dosimetry calculations”, FMU-ICRP Workshop on Radiological Protection in Medicine, Fukushima Medical University, Fukushima, Japan, October 2, 2017. [\[Invited Presentation\]](#)
38. [Flux G and Bolch WE](#), “Treatment Planning and Future Directions in Molecular Radiotherapy”, 2017 Asia Oceania Congress of Nuclear Medicine and Biology (AOCNMB), Yokohama, Japan, October 5, 2017. [\[Invited Presentation\]](#)
39. [Bolch WE](#), “Modern computational phantom and their applications for individualized organ dose assessment”, Workshop on Recent Progress in Radiation Dosimetry for Epidemiology and Radiological Protection”, University of Tokyo, December 2, 2017. [\[Invited Presentation\]](#)
40. [Bolch WE](#), “Development of age-dependent computational phantoms”, 2018 Annual Meeting of EURADOS, Instituto Superior Técnico (IST) in Lisbon, Portugal, February 8, 2018. [\[Invited Presentation\]](#)
41. [Bolch WE](#), “Models for patient dosimetry and prediction of early and late tissue effects”, EANM/ICRP Special Session – Risk Estimates for Patients Undergoing Molecular Radionuclide Therapy, 2018 Annual Meeting of the European Association of Nuclear Medicine, Düsseldorf, Germany, October 13-17, 2018. [\[Invited Presentation\]](#)
42. [Bolch WE](#), Lee C, Zankl M, Jokisch DA, Petoussi-Henss N, Kim CH, Hunt JGS, Sato T, Eckerman K, Kim KP, Li J, Schlattl H, Yeom YS, Wayson MBA, Pafundi DHA, Stepusin EJA, “The ICRP pediatric reference phantoms – design, construction, and applications to nuclear medicine dosimetry”, 2018 Annual Meeting of the European Association of Nuclear Medicine, Düsseldorf, Germany, October 13-17, 2018.
43. Kesner AL, Olguin EG, Zanzonico P, Lafontaine D, and [Bolch WE](#), “MIRDcalc internal dosimetry software – initial development and validation”, 2018 Annual Meeting of the European Association of Nuclear Medicine, Düsseldorf, Germany, October 13-17, 2018.
44. [Bolch WE](#), “Variations in organ and effective dose from external radionuclide environmental sources by explicit consideration of variations in body morphometry”, Nuclear Energy Agency, OECD, Paris, France, March 28-29, 2019. [\[Invited Presentation\]](#)
45. [Bolch WE](#), Griffin K, Paulbeck CG, Lee C, Cullings H, Egbert S, Funamoto S, Sato T, Endo A, and Hertel N, “The J45 phantom series and their potential for updates to the atomic bomb survivor organ doses”, 7th International Workshop on Computational Human Phantoms, Munich, Germany, July 22-24, 2019.
46. [Bolch WE](#), “ICRP framework for individual absorbed dose estimation”, EANM/ICRP Special Session – Radiological Protection in Therapy with Radiopharmaceuticals, 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019. [\[Invited Presentation\]](#)
47. [Bolch WE](#), Sands MMG, Milner RJ, Dormehl I, “A computational phantom of the adult Labrador for use in preclinical nuclear medicine dosimetry studies”, 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019.
48. [Bolch WE](#), “Digital human phantoms for dosimetry in nuclear medicine imaging and therapy: Historical development and recent advances”, 2021 Annual Meeting of the European Association of Nuclear Medicine, Joint EANM-AAPM Symposium, Virtual Meeting, October 20-23, 2021. [\[Invited Session Speaker\]](#).

International Professional Meeting Presentations - Students and Collaborators

1. Turner JE, Bolch WE, Wright HA, and Hamm RN, "Effects of Dissolved Oxygen on Calculated Yields in Irradiated Liquid Water", 8th International Congress on Radiation Research, Edinburgh, United Kingdom, July 19-24, 1987.
2. Wright HA, Hamm RN, Turner JE, Howell RW, Rao DV, Sastry KSR, and Bolch WE, "Calculation of Physical and Chemical Reactions in Aqueous Solution from Auger Cascades", 10th Symposium on Microdosimetry, Rome, Italy, May 21-26, 1989
3. Yoshida H, Bolch WE, Turner JE, and Jacobson KB, "The Radiation Chemistry of Glycylglycine in Aqueous Solutions", 10th Symposium on Microdosimetry, Rome, Italy, May 21-26, 1989.
4. Turner JE, Bolch WE, Yoshida H, Jacobson KB, Crawford OH, Hamm RN, and Wright HA, "The Irradiation of Glycylglycine in Aqueous Solution - A Case Study of Calculations from Track Structure to Biochemical Change", 12th Werner Brandt Workshop on Penetration of Charged Particles in Matter, San Sebastian, Spain, September 4-7, 1989.
5. Shearer TW, Akabani G, Bolch WE, and Poston, Sr. JW, "A Model for Electron and Beta Energy Deposition within Trabecular Bone", 5th International Radiopharmaceutical Dosimetry Symposium, Oak Ridge, Tennessee, May 7-10, 1991.
6. Stabin MG, Turner JE, Hamm RN, and Bolch WE, "Track Structure Simulation and Determination of Product Yields in the Radiolysis of Water Containing Various Solutes," 11th Symposium on Microdosimetry, Gatlinburg, Tennessee, May 13-18, 1992.
7. Bouchet LG^G, Bolch WE, Goddu SM, Howell RW, and Rao DV, "Radionuclide Selection Criteria for Treatment of Painful Metastatic Bone Disease in Humans", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
8. Bouchet LG^G and Bolch WE, "New Three-Dimensional Models of Electron Transport in Both Trabecular and Cortical Bone", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
9. Bouchet LG^G and Bolch WE, "Pediatric Head and Brain Dosimetric Models for Use with Nuclear Medicine Neuroimaging Agents", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
10. Blanco P^G, Bouchet LG^G, Rajon D^G, and Bolch WE, "Considerations of Suborgan Dosimetry within the 1997 Versions of the MIRD Mathematical Phantoms", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
11. Bishayee A, Howell RW, Srivastava SC, Bouchet LG^G, Bolch WE, and Raov. "Marrow sparing effects of Sn-117m-DTPA in the treatment of metastatic bone pain" Annual Meeting of the European Society of Nuclear Medicine, October, 1999, Barcelona, Spain [Eur. J. Nucl. Med. **26** (9) OS-352, 1999].
12. Gardin I, Robert F, Bouchet LG^G, Bolch WE, Sage LL, and Stanc EL, "Dosimetry at the Voxel Level following the MIRD Schema: Study of the Feasibility with Indium-111 Octreoscan Tomoscintigraphy", 38th Congrès Français de la Société Française des Physiciens d'Hôpital, Tours, France, May 19-21, 1999.
13. Clairand I^P, Richard M, Aubert B, Bouchet LG^G, and Bolch WE, "Development Of Mathematical Adult Models Of Different Size Dedicated To Internal Dosimetry", 2nd International Workshop on Anatomic Models, Oak Ridge, Tennessee, September 28-30, 1999.
14. Marshall DT, Aydogan B^G, Swarts SG, Turner JE, Boone AJ, Richards NG, and Bolch WE. "Computational modeling of ·OH interactions with a 167-base pair segment of DNA and comparison with experimental results ", 7th International Workshop on Radiation Damage to DNA, Orléans, France, September 2-7, 2001.
15. B Aydogan^G, DT Marshall, SG Swarts, JE Turner, AJ Boone, NG Richards, and WE Bolch. "Computational evaluation of ·OH site-specific attack preferences in sugar versus base moieties in DNA", 7th International Workshop on Radiation Damage to DNA, Orléans, France, September 2-7, 2001.
16. Gardin I, Caron J, Bouchet LG^G, Lisbona A, Ferre L, Bolch WE, and Vera P. "VOXELDOSE: A computer program for 3D dose calculation in therapeutic nuclear medicine", 7th International Radiopharmaceutical Dosimetry Symposium, Nashville, Tennessee, April 17-19, 2002.
17. Kim KP^G, Bolch W, Bolch E, Wu CY, and Birky B, "Characterization and evaluation of technologically enhanced naturally occurring radioactive materials (TENORM) in aerosols in the phosphate industry", 2002 International Aerosol Conference, Taipei, Taiwan, September 8-13, 2002.

18. Eckerman KF, Bolch WE, Zankl M, and Petoussi-Henss N, "Response functions for computing absorbed dose to skeletal tissues from photon irradiation" 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
19. Zankl M, Eckerman KF, and Bolch WE, "Voxel-based model representing the male and female ICRP reference adult – the skeleton" 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
20. Petoussi-Henss N, Bolch WE, Zankl M, Sgouros G, and Wessels B, "Patient-specific scaling of reference S values for cross-organ irradiation – what is appropriate?" 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
21. Hunt JG, Watchman CJ^G, and Bolch WE, "Calculation of absorbed fractions to human skeletal tissues due to alpha particles using Monte Carlo and 3D chord-based transport techniques" 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
22. Aydogan B^G, Bolch WE, Swarts SG, Turner JE, and Marshall DT, "Monte Carlo simulation of site-specific radical attack to DNA bases", 13th International Congress on Radiation Research, San Francisco, California, July 8-12, 2007.
23. Dieudonne A^F, Gardin I, Bolch WE, Zhang P, Assié K, Hapdey S, Buvat I, "Software development for 3D internal dosimetry in targeted radiotherapy", Workshop of Quantitative Imaging and Dosimetry in Nuclear Medicine, Berder Island, October 2007.
24. Padilla L^G, Lee C^P, Pafundi D^G, Milner R, and Bolch WE, "Image-based canine skeletal model for bone microdosimetry in the UF Dog phantom", 2008 Annual Meeting of the European Association of Nuclear Medicine, Munich, Germany, October 11-15, 2008 [Supplement to *Eur J Nucl Med* **35** (2) S135, 2008].
25. Pafundi D^G, Lee C^G, Lodwick DL^G, Shahlaee A, and Bolch WE, "Image-based pediatric skeletal dosimetry for the UF hybrid computational phantom series", 2008 Annual Meeting of the European Association of Nuclear Medicine, Munich, Germany, October 11-15, 2008 [Supplement to *Eur J Nucl Med* **35** (2) S135, 2008].
26. Dieudonne A^F, Gardin I, Zhang P, Bolch WE, Assie K, and Buvat I, "VoxelDose – A software for 3D dosimetry in targeted radiotherapy using S values at the voxel level", 2008 Annual Meeting of the European Association of Nuclear Medicine, Munich, Germany, October 11-15, 2008 [Supplement to *Eur J Nucl Med* **35** (2) S135, 2008].
27. Dieudonne A^F, Bolch WE, Gardin I, "Use of fine resolution Voxel-S-Values for absorbed dose calculation from SPECT or PET based cumulated activity distributions", 2008 Annual Meeting of the European Association of Nuclear Medicine, Munich, Germany, October 11-15, 2008. [Supplement to *Eur J Nucl Med* **35** (2) S136, 2008]
28. Zankl M, Becker J, Petoussi-Henss N, Hoeschen C, Eckerman KF, and Bolch WE, "Computational phantoms of the ICRP reference male and reference female," 12th Meeting of the International Radiation Protection Association (IRPA), Buenos Aires, Brazil, October 19–25, 2008.
29. Ghita M, Sjoden G, Al-Basheer A, Arreola M, Bolch WE, and Lee C^P, "Deterministic radiation transport simulations for diagnostic imaging applications", International Conference on Mathematics, Computational Methods & Reactor Physics (M&C 2009), Saratoga Springs, New York, May 3-7, 2009.
30. Ghita M, Sjoden G, Al-Basheer A, Arreola M, Bolch WE, and Lee C^P, "Deterministic radiation transport simulations for diagnostic imaging applications," International Conference on Mathematics, Computational Methods & Reactor Physics (M&C 2009), Saratoga Springs, New York, May 3-7, 2009.
31. Al-Basheer A, Sjoden G, Ghita M, and Bolch WE, "Applications of electron dose kernels to account for heterogeneities in voxelized phantoms," International Conference on Mathematics, Computational Methods & Reactor Physics (M&C 2009), Saratoga Springs, New York, May 3-7, 2009.
32. Shagina NB, Tolstykh EI, Harrison JD, Fell TP, Bolch WE, and Degteva MO, "Improved assessments of doses to Techa River offspring cohort from maternal intakes of strontium-90", National Cancer Institute Conference on Late Health Effects of Ionizing Radiation, Washington, DC, May 4-6, 2009.
33. Li WB, Zankl M, Schlattl H, Petoussi-Hess N, Eckerman KF, Bolch WE, Oeh U, and Hoeschen C, "Dose coefficients of ¹⁴¹Ce, ¹⁴⁴Ce, ⁹⁵Zr and ⁹⁰Sr using voxel phantom SAFs for photons and electrons," 2009 Internal Conference on the Health Effects of Ionizing Radiation, Santa Fe, NM, May 11-13, 2009.
34. Kielar K^G, Bolch WE, Shahlaee A, "Effect of chemotherapy on the spatial distribution of stem cells in human bone marrow", Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 70P (2009)].
35. Padilla L^G, Pafundi D^G, Lee C^A, Milner R, and Bolch WE, "Image-based canine skeletal model for bone microdosimetry in the UF Dog phantom", Third International Symposium on Radionuclide Therapy and

Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009 [Supplement to *J Nucl Med* **50** (2) 383P (2009)].

36. Shagina N, Tolstykh E, Degteva M, Harrison J, Fell T, and Bolch WE, "Doses of in-utero and postnatal exposure to the Techa River Offspring Cohort", Third European Congress of the International Radiation Protection Association (IRPA), Helsinki, Finland, June 14-18, 2010.
37. Hobbs RE, Song H, Watchman CJ^G, Bolch WE, Aksnes AK, Ramdahl T, Flux GD, and Sgouros G, "A trabecular and cellular model of bone marrow dosimetry for targeted ²²³Ra therapy", 7th Symposium on Targeted Alpha Therapy, Berlin, Germany, July 18-19, 2011.
38. Lamart S, Wayson M^G, Bolch WE, and Lee C^A, "Computational lymph node models in reference phantoms for radionuclide therapy dosimetry", 2012 Annual Meeting of the European Society for Radiotherapy and Oncology, Barcelona, Spain, May 9-13, 2012.
39. Shagina NB, Tolstykh EL, Fell TP, Harrison JD, Bolch WE, Maynard M^G, and Degteva MO, "Evaluation of in-utero doses from maternal ingestion of strontium radionuclides at the Techa River", 13th International Congress of the International Radiation Protection Association, Glasgow, Scotland, May 13-18, 2012.
40. Sayah R, Aube A, Héroult J, Delacroix S, Demarzi L, Vabre I, Stichelbaut F, Lee C^A, WE Bolch, and L Donadille, "Secondary neutron doses received by paediatric patients during intracranial proton therapy treatments", 2012 Annual Meeting of the Particle Therapy Co-Operative Group (PTCOG), Seoul, Korea, May 17-19, 2012.
41. Jokisch DW^G, Rajon D^G, and Bolch WE, "Alpha particle dosimetry in the trabecular skeleton", 4th International Symposium on Targeted Radiotherapy and Dosimetry (ISTARD) [Supplement to *Eur J Nucl Med* **39** S200 (2012)].
42. Geyer AM^G, O'Reilly S^G, Lee C^A, Bolch WE, Stepusin EJ^G, and Long DJ^G, "The UF/NCI family of hybrid computational phantoms representing the current US population of adults and pediatric patients – applications to CT dosimetry", 4th International Workshop on Computational Phantoms, Swiss Federal Institute of Technology, Zurich, Switzerland, May 20-22, 2013.
43. Petoussi-Hens N, Bolch WE, Eckerman KF, Endo A, Hertel N, Hunt J, Pelliccioni M, Schlattl H, and Zankl M, "ICRP Publication 116 – The first ICRP/ICRU application of the male and female adult reference computational phantoms", 4th International Workshop on Computational Phantoms, Swiss Federal Institute of Technology, Zurich, Switzerland, May 20-22, 2013.
44. Endo A, Petoussi-Hens N, Bolch WE, Eckerman KF, Hertel N, Hunt J, Pelliccioni M, Schlattl H, Zankl M, and Menzel HG, "An overview of the ICRP/ICRU adult reference computational phantoms and neutron dose conversion coefficients", 12th Symposium on Neutron and Ion Dosimetry, Aix-en-Provence, June 3-7, 2013.
45. Lee TS, Bolch WE, Wayson MB, Treves ST, Sgouros G, and Frey EC, "Effect of noise level, administered activity, and body habitus on detection of renal defect in pediatric diagnostic imaging of ^{99m}Tc-dimercaptosuccinic acid", 2013 Annual Meeting of the IEEE Medical Imaging Conference, Seoul, South Korea, October 27 – November 2, 2013.
46. Bonfrate A, Farah J, DeMarzi L, Delacroix S, Fountaine J, Héroult J, Sayah R, Trompier F, Lee C, Bolch WE, and Clairand I, "Secondary doses to healthy tissues during proton therapy treatments: influence of irradiation parameters." 2014 Annual Meeting of the European Federation of Organizations for Medical Physics, Athens, Greece, September 11-13, 2014.
47. Geyer A, Hobbs R, Sgouros G, and Bolch WE, "Radionuclide S values for renal dosimetry based upon NURBS anatomical transport models", 2014 Annual Meeting of the European Association of Nuclear Medicine, Gothenburg, Sweden, October 18-22, 2014.
48. Yeom YS, Kim HS, Nguyen TT, Wang ZJ, Han MC, Kim HK, Le JK, Zankl M, Petoussi-Hens N, Bolch WE, Lee C, and Chung BS, "Small intestine modeling method for use in surface-based computational human phantoms", 5th International Workshop on Computational Human Phantoms, Seoul, Korea, July 19-22, 2015.
49. Zankl M, Becker J, Lee C, Bolch WE, Yeon YS, and Kim CH, "ICRP adult and pediatric reference computational phantoms", 5th International Workshop on Computational Human Phantoms, Seoul, Korea, July 19-22, 2015.
50. Wang ZJ, Yeom YS, Nguyen TT, Han MC, Kim HK, Le JK, Zankl M, Petoussi-Hens N, Bolch WE, Lee C, and Chung BS, "Development of skeleton models for polygon-mesh version of the ICRP reference phantoms", 5th International Workshop on Computational Human Phantoms, Seoul, Korea, July 19-22, 2015.
51. Kim HS, Yeom YS, Nguyen TT, Wang ZJ, Han MC, Kim HK, Le JK, Zankl M, Petoussi-Hens N, Bolch WE, Lee C, and Chung BS, "Modeling target region of the alimentary tract in polygon-mesh versions of the ICRP reference phantoms", 5th International Workshop on Computational Human Phantoms, Seoul, Korea, July 19-22, 2015.

52. [Nguyen TT](#), Yeom YS, Kim HS, , Wang ZJ, Han MC, Kim HK, Le JK, Zankl M, Petoussi-Henss N, Bolch WE, Lee C, and Chung BS, “Incorporation of detailed eye model into polygon-mesh version of the ICRP reference phantoms for lens dose assessment”, 5th International Workshop on Computational Human Phantoms, Seoul, Korea, July 19-22, 2015.
53. [Kim CH](#), Yeom YS, Nguyen TT, Han CC, Choi CS, Lee H, Han H, Shin B, Lee JK, Kim HS, Zankl M, Peoussi-Henss N, Bolch WE, Lee C, Chung BS, Qui R, and Eckerman KF, “New mesh-type ICRP reference computational phantoms” 6th International Workshop on Computational Human Phantoms, Annapolis, MD, August 28-30, 2017. [\[Invited Plenary Speaker\]](#)
54. [Hosono M](#), Flux G, Bolch WE, Yonekura Y, Mattsson S, “Individualized treatment planning in radionuclide therapy”, 2018 Congress of the World Federation of Nuclear Medicine and Biology, Melbourne, Australia, April 20-24, 2018.
55. [Brown JL^G](#), Furuta T, and Bolch WE, “A computational method for voxel to polygon mesh conversion of anatomic computational human phantoms”, 2018 Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Honolulu, Hawaii, July 17-21, 2018. [\[Invited Speaker\]](#)
56. [Sechopoulos I](#), Rogers DWO, Bazalova-Carter M, Bolch WE, Heath EC, McNitt-Gray MF, Sempau J, Williamson JF, “RECORDS: Guidelines for Publication of Monte Carlo Studies”, 2018 European Congress of Medical Physics, Copenhagen, Denmark, August 23-25, 2018.
57. [Brown JL^G](#), Sexton-Stallone B, Li Y, Frey EC, Treves ST, Fahey FH, Plyku D, Sgouros G, and Bolch WE, “A pediatric library of phantoms for renal imaging incorporating waist circumference, renal volume, and renal depth”, 2018 Annual Meeting of the European Association of Nuclear Medicine, Düsseldorf, Germany, October 13-17, 2018.
58. [Carter LM](#), Crawford TM, Sato T, Furuta T, Bolch WE, Brown JL^G, Kim CH, Choi C, and Lewis JS, “PARaDIM – A PHITS-Based Monte Carlo tool for internal dosimetry”, 2019 Biannual Meeting of the International Symposium on Radiological Science, Beijing, China, May 26-31, 2019.
59. [Brown JL^G](#), Furuta T, and Bolch WE, “An algorithm for voxel-to-mesh phantom conversion with applications to radiation therapy”, 7th International Workshop on Computational Human Phantoms, Munich, Germany, July 22-24, 2019.
60. [Fahey F](#), Kofler C^G, Sexton-Stallone B, Reddy R, MacDougall R, and Bolch WE, “Patient-specific estimates of organ dose in paediatric ¹⁸F-FDG PET/CT imaging studies”, 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019.
61. [Brown JL^G](#), Sexton-Stallone B, Li Y, Frey EC, Treves ST, Fahey FH, Plyku D, Sgouros G, and Bolch WE, “Dosimetric impact of modelling the epiphyseal plates in pediatric ^{99m}Tc-MDP studies”, 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019.
62. [Josefsson A](#), Siritantikorn JJ, Tatit Sapienza M, Bolch WE, and Sgouros G, “Uncertainty in reference phantom-based dosimetry calculations: Impact of number of source organs”, 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019.
63. [Xiao Y](#), Peters KR, Fox WC, Rees JH, Rajderkar D, Arreola MM, Barreto I, Bolch WE, and Fang R, “Transfer-GAN: Multimodal CT image super-resolution via transfer generative adversarial networks”, 2020 International Symposium in Biomedical Imaging, Iowa City, IA, April 3-7, 2020.
64. [Sato T](#), Funamoto S, Paulbeck C^A, Griffin K, Lee C, Cullings HM, Egbert SD, Endo A, Hertel H, and Bolch WE, “Current status of the project for re-evaluation of atomic bomb survivor doses using a new computational voxel phantom series”, 2020 Annual Meeting of the Japan Health Physics Society, Osaka, Japan, June 29-30, 2020.
65. Correa C, Domal S, Withrow J, Abdulla M, Grassberger C, Xing S, Shin J, Paganetti H, and Bolch WE, “Models of internal liver vasculature within the mesh-type ICRP adult reference phantoms to support internal dosimetry in radiopharmaceutical therapy”, 2021 Annual Meeting of the European Association of Nuclear Medicine, Joint EANM-AAPM Symposium, Virtual Meeting, October 20-23, 2021.

International Seminars and Lectures – WE Bolch Presenter

1. Workshop Participant, Department of Energy / Commission of the European Communities Workshop on Critical Evaluation of Radiobiological Data for Biophysical Modeling. Oak Ridge, Tennessee, June 22-25, 1988.
2. U.S. Representative to the OECD Nuclear Energy Agency, Workshop on the Future Infrastructure of Nuclear Power, Paris, June 10-11, 1996.
3. “Current Internal Dosimetry Research at the University of Florida”, **Invited Speaker**, Institut Gustave Roussy, Villejuif, France, October 8, 1996.
4. “Current Internal Dosimetry Research at the University of Florida”, **Invited Speaker**, Service Hospitalier Frédéric Joliot, Département de Recherche Médicale, Direction Sciences du Vivant, Commissariat à l'énergie atomique, Paris, France, October 9, 1996.
5. “Third Year Educational Opportunities at the University of Florida”, **Invited Speaker**, Ecole Nationale de Physique de Grenoble, Grenoble, France, October 10, 1996.
6. “Research and Educational Opportunities at the University of Florida College of Engineering”, **Invited Speaker**, Institute National Polytechnique de Grenoble, Grenoble, France, February 16, 2000.
7. “Customized Phantoms and Organ Models for Medical Dosimetry Studies”, **Invited Speaker**, Department of Medical Physics, Queen Elizabeth Hospital, University of Birmingham, Birmingham, UK, September 12, 2006.
8. “Scalable Pediatric Phantoms and Skeletal Dose Models”, **Invited Speaker**, MIRD Continuing Education Session, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009.
9. “New Dosimetry Models for Nuclear Medicine – Models of Bone Marrow Dose and Pediatric Scalable Phantoms”, **Invited Speaker**, MIRD Continuing Education Session, Third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry (ISRTRD), Toronto, Canada, June 13-17, 2009.”
10. “The UF Series of Hybrid Computational Phantoms for Patient-Specific Medical Dosimetry”, **Invited Speaker**, Department of Nuclear Engineering, Kyung Hee University, Seoul, Korea, May 13, 2010.
11. “The UF Series of Hybrid Computational Phantoms for Patient-Specific Medical Dosimetry”, **Invited Speaker**, Department of Nuclear Engineering, National Seoul University, Seoul, Korea, May 14, 2010.
12. “Paediatric Dosimetry in Nuclear Medicine”, Lecture in the Session on Clinical Dosimetry for Paediatric Imaging, **Invited Speaker**, International Symposium on Standards, Applications, and Quality Assurance in Medical Radiation Dosimetry (IDOS), International Atomic Energy Agency (IAEA), Vienna, Austria, November 9-12, 2010.
13. “Applications of Voxel Phantoms: A Selective Review”, **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Fontenay-aux-Roses, France, October 11-13, 2011.
14. “Modeling Small Tissue Structures”, **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Fontenay-aux-Roses, France, October 11-13, 2011.
15. “Recent Advances in Computational Phantoms”, **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Fontenay-aux-Roses, France, October 11-13, 2011.
16. “Introduction to Radiopharmaceutical Dosimetry and the MIRD Formalism”, **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Trieste, Italy, November 21-25, 2016.
17. “Dosimetric Models in Nuclear Medicine”, **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Trieste, Italy, November 21-25, 2016.
18. “ICRP Internal Dose Coefficients for Radiological Protection”, **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Trieste, Italy, November 21-25, 2016.
19. “Available Software and Web Resources for Internal Dosimetry”, **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Trieste, Italy, November 21-25, 2016.
20. “Applications of Voxel Phantoms: A Selective Review”, **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Karlsruhe Institute of Technology, Karlsruhe, Germany, March 12-14, 2018.
21. “Modeling Small Tissue Structures”, **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Institute of Technology, Karlsruhe, Germany, March 12-14, 2018.

22. "Recent Advances in Computational Phantoms", **Invited Speaker**, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Institute of Technology, Karlsruhe, Germany, March 12-14, 2018.
23. "Dosimetric Anatomic Models for Nuclear Medicine Dosimetry", **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Virtual Meeting, September 22, 2021.
24. "ICRP Internal Dose Coefficients for Radiological Protection", **Invited Speaker**, Joint ICTP-IAEA Workshop on Internal Dosimetry, Virtual Meeting, September 22, 2021.

National Professional Meeting Presentations - WE Bolch Presenter

1. WE Bolch, JE Turner, and RN Hamm, "An Algorithm for Unfolding Neutron Dose and LET from Digitized Recoil-Particle Tracks", 34th Annual Meeting of the Radiation Research Society, Las Vegas, Nevada, April 12-17, 1986.
2. WE Bolch, HA Wright, JE Turner, RN Hamm, and CE Klots, "Yields of Chemical Species in Irradiated Liquid Water - A Comparison Between Monte Carlo Calculations and Experimental Data", 35th Annual Meeting of the Radiation Research Society, Atlanta, Georgia, February 21-26, 1987.
3. WE Bolch, JE Turner, RN Hamm, and HA Wright, "Fragmentation of Biopolymers in Irradiated Aqueous Solutions as the Basis for a Radiation Dosimeter", 32nd Annual Meeting of the Health Physics Society, Salt Lake City, Utah, July 5-9, 1987.
4. WE Bolch, JE Turner, HA Wright, RN Hamm, H Yoshida, and KB Jacobson, "The Radiation Chemistry of Glycylglycine: Monte Carlo Calculations of Product Yields", 36th Annual Meeting of the Radiation Research Society, Philadelphia, Pennsylvania, April 17-22, 1988.
5. WE Bolch, JE Turner, HA Wright, RN Hamm, H Yoshida, and KB Jacobson, "Monte Carlo Simulation of Indirect Radiation Damage to Simple Biomolecules", 33rd Annual Meeting of the Health Physics Society, Boston, Massachusetts, July 4-8, 1988.
6. WE Bolch, JK Thomas, KL Peddicord, SM Stevenson, AJ Willoughby, "A Radiological Assessment of Space Nuclear Power Operations Near Space Station Freedom", 7th Symposium on Space Nuclear Power Systems, Albuquerque, New Mexico, January 8-11, 1990.
7. MC Smith*, WE Bolch, and JE Turner, "Nearest-Neighbor Distributions of Free Radicals Produced within Charged-Particle Tracks in Liquid Water", 38th Annual Meeting of the Radiation Research Society, New Orleans, Louisiana, April 7-12, 1990.
8. WE Bolch, JE Turner, H Yoshida, KB Jacobson, and RN Hamm, "Calculated Chemical Yields from X-Irradiation of Glycylglycine in Oxygen-Free Aqueous Solution. I. Microsecond Chemical Yields", 38th Annual Meeting of the Radiation Research Society, New Orleans, Louisiana, April 7-12, 1990
9. WE Bolch, JK Thomas, KL Peddicord, SM Stevenson, AJ Willoughby, "A Radiation Protection Approach to Space Nuclear Power Operations", 35th Annual Meeting of the Health Physics Society, Anaheim, California, June 24-28, 1990.
10. WE Bolch, JK Thomas, KL Peddicord, SM Stevenson, AJ Willoughby, "A Radiation Protection Approach to Space Nuclear Power Operations", 2nd Annual Investigators Meeting on Space Radiation Research, Houston, Texas, April 22-23, 1991.
11. WE Bolch, JK Thomas, KL Peddicord, SM Stevenson, and AJ Willoughby, "Radiation Protection Considerations in Space Station Missions", 37th Annual Meeting of the Health Physics Society, Columbus, Ohio, June 21-25, 1992.
12. WE Bolch, A Zuzarte*, and JW Poston, Sr., "Monte Carlo Estimates of Electron Absorbed Fractions in Trabecular Bone," 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
13. WE Bolch, and JW Poston, Sr., "A Revised Dosimetric Model of the Head and Brain," 42nd Annual Meeting of The Society of Nuclear Medicine, Minneapolis, Minnesota, June 12-15, 1995. [Supplement to *J. Nucl. Med.* **36** (5) 85P, 1995].
14. RA Parry*, WE Bolch, and JW Poston, Sr., "Revised Estimates of Electron Absorbed Fractions and Radionuclide S Values in Trabecular Bone," 42nd Annual Meeting of The Society of Nuclear Medicine, Minneapolis, Minnesota, June 12-15, 1995. [Supplement to *J. Nucl. Med.* **36** (5) 181P, 1995].

15. WE Bolch, P Blanco*, and LG Bouchet*, “Electron Absorbed Fractions for Use Under the MIRD Schema within the ORNL Mathematical Models of Pediatric Patients”, 44th Annual Meeting of the Society of Nuclear Medicine, San Antonio, Texas, June 1-5, 1997. [Supplement to *J. Nucl. Med.* **38** (5) 225P, 1997].
16. WE Bolch, LG Bouchet*, RW Howell, and DV Rao, “A New Three-Dimensional Model of Electron Transport in Trabecular Bone”, 45th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 7-11, 1998. [Supplement to *J. Nucl. Med.* **39** (5) 183P, 1998].
17. WE Bolch, DW Jokisch*, PW Patton*, LG Bouchet*, DA Rajon*, BA Inglis, and SL Myers, “NMR Microimaging of Trabecular Bone: A New Tool for the Development of Bone Dosimetry Models”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S13, 1998].
18. I Gardin, EL Sage, LG Bouchet, F Robert, WE Bolch, “Application of the MIRD Voxel Dosimetry to ¹¹¹In Octreoscan Tomoscintigraphy”, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000. [Supplement to *J. Nucl. Med.* **41** 84P (No. 331) (2000)].
19. I. Clairand*, LG Bouchet, WE Bolch, “A New Macroscopic Model of the Long Bones for Skeletal Dosimetry”, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000. [Supplement to *J. Nucl. Med.* **41** 240P (No. 1062) (2000)].
20. LG Bouchet, I. Clairand*, WE Bolch, “Improvement of Skeletal Internal Dosimetry Associated with Photon Sources”, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000. [Supplement to *J. Nucl. Med.* **41** 237P (2000)].
21. LG Bouchet, I. Clairand*, WE Bolch, “Improvement of Skeletal Internal Dosimetry for Pediatric Patients”, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000. [Supplement to *J. Nucl. Med.* **41** 238P (2000)].
22. WE Bolch, DW Jokisch*, PW Patton*, DA Rajon*, and LG Bouchet, “Investigation of NMR Microscopy for Use in Skeletal Dosimetry Models”, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000. [Supplement to *J. Nucl. Med.* **41** 83P (2000)].
23. CH Huh*, WE Bolch, MS Bhutani, and E Farfan*, “In-vivo measurements of the GI tract wall thicknesses using endoscopic ultrasound: applications to internal dosimetry”, 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S125 (2001)].
24. WE Bolch, “An-imaged based skeletal reference model of the adult male radionuclide therapy patient”, 2005 Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 19-22, 2005. [Supplement to *J Nucl Med* **46** (5): 193-194 (2005)]
25. WE Bolch, “Review of HP academic programs in the US”, 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S36 (2007)].
26. WE Bolch, “Challenges and potential solutions for patient-specific dose reconstruction in diagnostic and therapeutic medical exposures”, 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S95 (2007)].
27. WE Bolch, M Wayson, EC Frey, B He, S Treves, and G Sgouros, “Effect of body habitus on the relationship between administered activity and organ dose in pediatric Tc-99m DMSA SPECT,” 2010 Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 5-9, 2010 [Supplement to *J Nucl Med* **51** 87P (2010)].
28. WE Bolch, P Johnson*, D Borrego*, K Johnson, and D Siragusa, “Use of hybrid phantoms for individualized dose monitoring in interventional fluoroscopy”, 2011 Annual Meeting of the Health Physics Society, Palm Beach, FL, June 25-29, 2011 [Supplement to *Health Phys* **101** S31 (2011)].
29. WE Bolch, P Johnson*, C Lee, and K Kim, “MicroCT based methods of assessing imaging dose to active marrow and endosteum in CT, fluoroscopy, and nuclear medicine” 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3116 (2010)].
30. WE Bolch, “The role of voluntary versus mandatory regulatory standards – standardization of medical patient dosimetry”, 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3766 (2011)].
31. WE Bolch, “JT and WB – A brief history of a health physics mentor and his mentee”, **Invited Plenary Speaker**, First Annual James E. Turner Memorial Symposium on Radiological Physics and Microdosimetry, Oak Ridge, TN, April 18-19, 2012.
32. WE Bolch, D Pafundi*, and M Wayson*, “NURBS and MicroCT-based tissue and dosimetry models of the pediatric and adolescent skeleton: Techniques for photon and beta-particle marrow dosimetry”, 2012

- Annual Meeting of the Society of Nuclear Medicine, Miami, FL, June 9-13, 2012 [Supplement to *J Nucl Med* **53** 584 (2012)].
33. WE Bolch, D Pafundi*, M Wayson*, C Lee, and C Watchman, "A series of NURBS and microCT-based reference skeletal dosimetry models of the pediatric and adolescent skeleton", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3876 (2012)].
 34. WE Bolch, A Geyer*, S O'Reilly*, C Lee, and D Long*, "The UF/NCI library of hybrid computational phantoms capturing current US pediatric and adult body morphometry for improved estimates CT organ dose", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
 35. WE Bolch, A Geyer*, D Long*, and D Borrego*, "The UF/NCI library of hybrid computational phantoms – applications to patient dose tracking in diagnostic imaging", **Invited Speaker**, 2013 Annual Meeting of the American Nuclear Society, Hyatt Regency Hotel, Atlanta, Georgia, June 16-20, 2013.
 36. WE Bolch, "TG246 – On patient dose from diagnostic radiation: Format types and morphometric categories of computational phantoms" **Invited Speaker**, 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 23, 2014.
 37. WE Bolch, "Developments in Monte Carlo methods for medical imaging – Review of computational models of human anatomy" **Invited Speaker**, 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 23, 2014.
 38. WE Bolch, "Computational tools for dose assessment to children in diagnostic imaging and radiotherapy", 2014 Annual Meeting of the Radiation Research Society, Las Vegas, NV, September 20-23, 2014.
 39. Y Dewaraja and WE Bolch, "Systemic radionuclide therapy dosimetry methods – approaches under development", **Invited Speaker**, National Cancer Institute Workshop on Dosimetry of Systemic Radionuclide Therapy (SRT), Bethesda, MD, April 19-20, 2018.
 40. WE Bolch, "Systemic radionuclide therapy with thorium-227", **Invited Speaker**, National Cancer Institute Workshop on Dosimetry of Systemic Radionuclide Therapy (SRT), Bethesda, MD, April 19-20, 2018.
 41. Bolch WE, Howell RW, Sgouros G, Chiti A, Dewaraja Y, Emfietzoglou D, Hobbs R, Konijnenberg M, Sjögren-Gleisner K, Strigari L, Yen TC, "Dosimetry-Guided Radiopharmaceutical Therapy: Current Status of the ICRU Report Committee 31", **Invited Speaker**, 2020 Annual Meeting of the Radiation Research Society, Virtual Meeting, October 18-21, 2020.
 42. Bolch WE (along with Hobbs R and Dewaraja Y), "New and Upcoming Guidelines for Radiopharmaceutical Therapy (RPT) Dosimetry", **Invited Speaker**, 2021 Spring Clinical Meeting of the American Association of Physicists in Medicine, Virtual Meeting, April 17-20, 2021.
 43. Bolch WE, "History of computational phantoms representative of the Japanese atomic bomb survivors and the potential update to organ dosimetry using the new J45 phantom series", **Invited Speaker**, First Annual Workshop of the Health Physics Society, Clemson University, Clemson, SC, May 23-26, 2021.
 44. Bolch WE, "The ICRP reference person and computational human phantoms – How are they created and are they the same thing?", **Invited Speaker**, First Annual Workshop of the Health Physics Society, Clemson University, Clemson, SC, May 23-26, 2021.

National Professional Meeting Presentations - Students and Collaborators

1. RH Ritchie, WE Bolch, and JE Turner, "Energy Losses by Subexcitation Electrons in Liquid Water", Southeastern Section Meeting of the American Physical Society, Nashville, Tennessee, November 23-25, 1987.
2. HA Wright, RN Hamm, JE Turner, WE Bolch, JL Magee, and A Chatterjee, "A Model for Calculating Physical and Chemical Interactions Produced by Charged Particles in Liquid Water", 1988 Meeting of the American Physical Society, New Orleans, Louisiana, March 21-24, 1988.
3. H Yoshida, KB Jacobson, WE Bolch, and JE Turner, "The Radiation Chemistry of Glycylglycine: Measurements of Products", 36th Annual Meeting of the Radiation Research Society, Philadelphia, Pennsylvania, April 17-22, 1988.
4. HA Wright, CE Klots, RN Hamm, WE Bolch, and JE Turner, "Computer Simulation of Chemical Reactions in Charged-Particle Tracks", 36th Annual Meeting of the Radiation Research Society, Philadelphia, Pennsylvania, April 17-22, 1988.

5. HA Wright, JE Turner, WE Bolch, RN Hamm, GS Hurst, and SR Hunter, "Applications of an Optical Ionization Radiation Track Detector in Neutron Dosimetry and Microdosimetry", 33rd Annual Meeting of the Health Physics Society, Boston, Massachusetts, July 4-8, 1988.
6. H Yoshida, WE Bolch, KB Jacobson, and JE Turner, "Radiolysis of Glycylglycine in Deoxygenated Aqueous Solutions", 37th Annual Meeting of the Radiation Research Society, Seattle, Washington, March 18-23, 1989.
7. G Akabani, JW Poston, and WE Bolch, "Beta and Electron Transport in Internal Dose Calculations", 34th Annual Meeting of the Health Physics Society, Albuquerque, New Mexico, June 25-29, 1989.
8. MC Smith*, WE Bolch, and JE Turner, "Concentration of Free Radicals within Electron Tracks in Liquid Water", 34th Annual Meeting of the Health Physics Society, Albuquerque, New Mexico, June 25-29, 1989.
9. JE Turner, WE Bolch, OH Crawford, RN Hamm, H Yoshida, and KB Jacobson, "Calculated Chemical Yields from X-Irradiation of Glycylglycine in Oxygen-Free Aqueous Solution. II. Late Chemical Yields", 38th Annual Meeting of the Radiation Research Society, New Orleans, Louisiana, April 7-12, 1990.
10. SM Stevenson, WE Bolch, and JK Thomas, "Accommodation of Nuclear Power and Propulsion Concepts", Space Station Evolution Conference, League City, Texas, February 6-8, 1990.
11. H Yoshida, WE Bolch, JE Turner, KB Jacobson, and WM Garrison, "Measurement of Products from X-Irradiated Glycylglycine in Oxygen-Free Solutions", 38th Annual Meeting of the Radiation Research Society, New Orleans, Louisiana, April 7-12, 1990.
12. OR Hernandez*, WE Bolch, and JW Poston, Sr., "A Linear, Time-Varying Simulation of the New ICRP Lung Model", 36th Annual Meeting of the Health Physics Society, Washington, D.C., July 21-26, 1991.
13. KL Peddicord, WE Bolch, and JK Thomas, "Radiation Protection Considerations in Space Station Missions", 1991 Winter Meeting of the American Nuclear Society, San Francisco, California, November 10-14, 1991.
14. JE Turner, RN Hamm, MG Stabin, and WE Bolch, "Calculation of Radical Yields and their Dependences on Time and Solute Concentration in the Radiolysis of Water", 40th Annual Meeting of the Radiation Research Society, Salt Lake City, Utah, March 15-19, 1992.
15. IR Fulmer, JW Poston, Sr., and WE Bolch, "Internal Dosimetry Software Comparison Study", 37th Annual Meeting of the Health Physics Society, Columbus, Ohio, June 21-25, 1992.
16. CK Brown*, WE Bolch, and JW Poston, Sr., "Characterization of Al₂O₃:C Thermoluminescent Dosimeter Response to Beta Radiation," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
17. PC Fulmer*, WE Bolch, JW Poston, Sr., and RJ Brake, "Design and Evaluation of Thermoluminescent Dosimeters Based Upon Mixtures of TL Materials," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
18. DL Crady, Jr.*, WE Bolch, DA Weber, and HL Atkins, "Specific Absorbed Fractions for Photon Sources in a Revised Dosimetric Model of the Brain," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
19. IL Spence*, WE Bolch, and JW Poston, Sr., "A Feasibility Study of a Gelatin-Based Tissue Substitute," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
20. HM Lau*, WE Bolch, JE Turner, and RN Hamm, "Computer Simulation of Radiation Damage to Single-Stranded DNA," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
21. CL Delisle*, WE Bolch, SK Lee, and AG Parlos, "An Assessment of Crew Exposures During Manned Mars Missions," 38th Annual Meeting of the Health Physics Society, Atlanta, Georgia, July 11-15, 1993.
22. KA Kodimer*, WE Bolch, and JW Poston, Jr., "Monte Carlo Calculations of Electron Specific Absorbed Fractions for the Thyroid of Anthropomorphic Pediatric Phantoms," 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
23. IJ Sadler*, WE Bolch, and JW Poston, Sr., "Experimental Determination of Absorbed Fractions and Dose Profiles in a Gelatin-Based Tissue Substitute", 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
24. EH Kim*, WE Bolch, WD Reece, and JW Poston, Sr., "A Microscopic Approach in Cellular Dose Calculations for Electron Sources," 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
25. RA Parry*, WE Bolch, and JW Poston, Sr., "Monte Carlo Estimates of S-Values for Bone-Seeking Beta Emitters", 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.

26. JW Poston, Jr.*, KA Kodimer*, WE Bolch, and JW Poston, Sr., "A Revised Dosimetric Model of the Gastrointestinal Tract", 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
27. S Calvo*, KF Eckerman, and WE Bolch, "Estimates of Electron Absorbed Fractions of Energy for the Upper Respiratory Tract," 39th Annual Meeting of the Health Physics Society, San Francisco, California, June 26-30, 1994.
28. LG Bouchet*, WE Bolch, DA Weber, HL Atkins, and JW Poston, Sr., "A New Dosimetric Model of the Head and Brain", 37th Annual Meeting of the AAPM, Boston, Massachusetts, July 23-27, 1995.
29. EH Kim*, WE Bolch, WD Reece, and JW Poston, Sr., "Microdosimetric Assessments of Cellular Dose in Tumor and Normal Tissues for Internal Beta-Emitting Sources", 37th Annual Meeting of the AAPM, Boston, Massachusetts, July 23-27, 1995.
30. EH Kim*, WE Bolch, WD Reece, and JW Poston, Sr., "A Microdosimetric Algorithm for Probabilistic Electron Point Kernels", 37th Annual Meeting of the AAPM, Boston, Massachusetts, July 23-27, 1995.
31. JW Poston, Jr.*, KA Kodimer*, WE Bolch, and JW Poston, Sr., "Monte Carlo Calculation of Beta Absorbed Fractions Using a Revised Model of the Gastrointestinal Tract", 40th Annual Meeting of the Health Physics Society, Boston, Massachusetts, July 23-27, 1995. [Supplement to *Health Phys.* **68** (6) S51, 1995].
32. MA Charlton*, WE Bolch, ME McLain, and JW Poston, Sr., "Response Comparison of a Single-Diode Electronic Dosimeter, A Three-Diode Electronic Dosimeter, and a Conventional Four-Filter TLD Assembly in Several Irradiation Environments", 40th Annual Meeting of the Health Physics Society, Boston, Massachusetts, July 23-27, 1995. [Supplement to *Health Phys.* **68** (6) S37, 1995].
33. TH Wagner* and WE Bolch, "An Innovative Method of Teaching Gamma-Ray Spectroscopy in a Radiation Detection Laboratory Course at the University of Florida", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S11, 1996].
34. DA Smith*, and WE Bolch, "A Small-Scale Dosimetry Study of Radioactive Stents for Use in the Prevention of Restenosis Following Balloon Angioplasty and Stent Implantation", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S11, 1996].
35. LM Thomsen* and WE Bolch, "Upgrade of a Radiation Measurement Laboratory Course at the University of Florida", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S10, 1996].
36. R Reyes*, WE Bolch, and KL Hintenlang, "Estimates of Organ Doses for Pediatric Patients Undergoing Diagnostic X-Ray Procedures", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S12, 1996].
37. DW Jokisch* and WE Bolch, "Estimates of Electron Absorbed Fraction in Trabecular Bone Utilizing Nuclear Magnetic Resonance Imaging Modeling", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S13, 1996].
38. T Chohan* and WE Bolch, "A Survey of Radiographic Technique Parameters Used in Pediatric Diagnostic Examinations", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S12, 1996].
39. LG Bouchet* and WE Bolch, "A Revised Dosimetric Model of the Adult Head and Brain", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S43, 1996].
40. SV Costes*, LG Bouchet*, and WE Bolch, "Cubical S Values for Use with SPECT, PET, and Autoradiographic Imaging Data in Performing Small-Scale Dosimetry", 41st Annual Meeting of the Health Physics Society, Seattle, Washington, July 21-25, 1996. [Supplement to *Health Phys.* **70** (6) S44, 1996].
41. LG Bouchet*, WE Bolch, B Aydogan*, "A New Direct Internal Dosimetric Approach for Non-Uniform Activity Distributions Using the MIRD Schema", 44th Annual Meeting of the Society of Nuclear Medicine, San Antonio, Texas, June 1-5, 1997. [Supplement to *J. Nucl. Med.* **38** (5) 106P, 1997].
42. LG Bouchet* and WE Bolch, "Five New Pediatric Head and Brain Models for Internal Dosimetry Calculations for Photon, Electron, and Positron Sources", 44th Annual Meeting of the Society of Nuclear Medicine, San Antonio, Texas, June 1-5, 1997. [Supplement to *J. Nucl. Med.* **38** (5) 105P, 1997].
43. LG Bouchet*, WE Bolch, SM Goddu, RW Howell, and DV Rao, "Bone Marrow Dosimetry for the Mouse Femur Using NMR Microimages", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S35, 1997].

44. P Blanco*, WE Bolch, and LG Bouchet*, "Electron Absorbed Fractions for Use in Pediatric Internal Dosimetry Under the MIRDO Schema", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S47, 1997].
45. DW Jokisch*, PW Patton*, and WE Bolch, "A Comparison of Models Utilized to Assess Electron Absorbed Fractions in Trabecular Bone", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S35, 1997].
46. PW Patton*, DW Jokisch*, and WE Bolch, "Nuclear Magnetic Resonance Imaging for Use in Studying the Microstructure and Radiation Dosimetry of Trabecular Bone", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S34, 1997].
47. V Seghal*, WE Bolch, LG Bouchet*, and Z Li, "A Small-Scale Dosimetry Study of Radioactive Stents Used in the Treatment of Restenosis", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S34, 1997].
48. LM Thomsen*, and W. E. Bolch, "Design of a Gamma Spectroscopy System Using Low-Speed Analog Interface Cards and LabVIEW™ Software", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S51, 1997].
49. TH Wagner*, and WE Bolch, "Development and Revision of a Senior/First-Year Graduate Student Laboratory Course in Radiation Detection and Instrumentation", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S52, 1997].
50. RA Reyes*, WE Bolch, LG Bouchet*, and K Hintenlang, "A Comparative Study of Experimental Real-Time Dosimetry Data and Monte Carlo Transport Simulations in Estimating Organ Doses During Pediatric X-Ray Procedures", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S55, 1997].
51. B Aydogan*, WE Bolch, and LG Bouchet*, "Uncertainty Analysis for Absorbed Dose of a Brain Receptor Agent", 42nd Annual Meeting of the Health Physics Society, San Antonio, Texas, June 29 - July 3, 1997. [Supplement to *Health Phys.* **72** (6) S55, 1997].
52. SM Goddu, RW Howell, LG Bouchet*, WE Bolch, and DV Rao, "Marrow Sparing Effects of Low-Energy Versus High-Energy Beta Emitters for Palliation of Bone Pain", 45th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 7-11, 1998. [Supplement to *J. Nucl. Med.* **39** (5) 84P, 1998].
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242. Lee C^A, Kruger RL, Judy PF, Bolch WE, Cody DD, and Flynn MJ, "Calculation of individualized organ dose for the National Lung Screening Trial (NLST) participant CT examinations", 2014 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 30 – December 5, 2014.
243. Borrego D^G, Siragusa DA, and Bolch WE, "Computing organ doses from fluoroscopically guided interventions equipped with radiation dose structured reports (RDSR)", 2014 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 30 – December 5, 2014.
244. Stepusin E^J^G, Long DJ^A, and Bolch WE, "Monte Carlo based organ dose and effective dose coefficients for common computed tomography torso examinations for ICRP 89 reference phantoms that account for tube current modulation", 2014 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 30 – December 5, 2014.
245. Shang M^G, Sands M^G, and Bolch WE, "Dosimetric model of the beagle needed for pre-clinical testing of radiopharmaceuticals", 2015 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 12-16, 2015. [Supplement to *Med Phys* **42** 3197 (2015)].
246. Petroccia H^G, Li Z, Mendenhall N, and Bolch WE, "Monte Carlo simulation of Co-60 teletherapy unit modeling in-field and out-of-field doses for applications tin computational radiation dosimetry", 2015 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 12-16, 2015. [Supplement to *Med Phys* **42** 3464 (2015)].
247. Bonfrate A, Farah J, De Marzi L, Delacroix S, Herault J, Sayah R, Lee C^A, Bolch WE, and Clairand I, "Parametric equation for quick and reliable estimate of stray neutron doses in proton therapy and applications for intracranial tumor treatments", 2015 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 12-16, 2015. [Supplement to *Med Phys* **42** 3473 (2015)].
248. Schwarz B^G, Geyer A^G, and Bolch WE, "Assessment of individual variations in skeletal S values for beta particle and alpha particle emitters in radionuclide therapy", 2015 Annual Meeting of the Health Physics Society, Indianapolis, IN, July 14-18, 2015 [Supplement to *Health Phys* **109** S25 (2015)].
249. Marshall E^G, Borrego D^G, Fudge J, and Bolch WE, "Dose tracking and reduction in pediatric congenital cardiac catheterization procedures", 2015 Annual Meeting of the Health Physics Society, Indianapolis, IN, July 14-18, 2015 [Supplement to *Health Phys* **109** S42 (2015)].
250. Sands M^G, Maynard M^P, Bahadori A^A, and Bolch WE, "Auto-scaling of UF hybrid adult phantoms to astronaut morphometry", 2015 Annual Meeting of the Health Physics Society, Indianapolis, IN, July 14-18, 2015 [Supplement to *Health Phys* **109** S90 (2015)].
251. Josefsson A, Zhu C, Park S, Abou D, Song H, Huso D, Back T, Bruchertseifer F, Morgenstern A, Bolch WE, Sgouros G, Hobbs RF, "Small scale renal dosimetry for alpha particle radiopharmaceutical therapy of metastatic breast cancer with Ac-225", 2015 Annual Meeting of the American Society for Radiation

Oncology, October 18-21, 2015, San Antonio, TX [Supplement to the *Int J Radiat Oncol Biol Phys* **93**: S149-S150 (2015)].

252. Lee CA, Kim KA, Bolch WE, and Folio LR, "A computer program to assess organ dose for pediatric and adult patients undergoing CT scans", 2015 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 29 – December 4, 2015.
253. Stepusin EJ^G, Long DJ^A, and Bolch WE, "The effects of size-specific phantom-to-patient matching for Monte Carlo based computed tomography dosimetry", 2015 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 29 – December 4, 2015.
254. Long N^G, Stepusin EJ^G, Long DJ^A, and Bolch WE, "Development of a computational adult brain model and applications to radiation dosimetry of brain structures during computed tomography examinations", 2015 Annual Meeting of the Radiological Society of North America, Chicago, IL, November 29 – December 4, 2015.
255. Li Y, Treves S, O'Reilly S^G, Plyku D, Cao X, Fahey F, Bolch WE, Sgouros, and Frey EC, "Development of a simulated defect model for dose optimization in pediatric DMSA renal SPECT", 2016 Annual Meeting of the Society for Nuclear Medicine and Molecular Imaging, San Diego, California, June 11-15, 2016.
256. Plyku D, O'Reilly S^G, Khamwan K, Cao X, Goodkind A, Fahey F, Bolch WE, Frey EC, Treves ST, and Sgouros G, "Quantitation of renal ^{99m}Tc-DMSA uptake in maturing children: Implications for dosing guidelines in pediatric imaging", 2016 Annual Meeting of the Society for Nuclear Medicine and Molecular Imaging, San Diego, California, June 11-15, 2016.
257. Petroccia H^G, Olguin E, Culberson W, Bednarz B, Mendenhall N, and Bolch W, "A Monte Carlo study of out-of-field doses from Co-60 teletherapy units intended for historical correlations of dose to normal tissues", 2016 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 31 – August 4, 2016 [Supplement to *Med Phys* **43** 3317 (2016)].
258. Olguin E^G, Flampouri S, Lipnharski I, and Bolch W, "Development of proton tissue equivalent materials for calibration and dosimetry studies", 2016 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 31 – August 4, 2016 [Supplement to *Med Phys* **43** 3336 (2016)].
259. Benabdallah N, Bermardini M, de Labriolle-Vaylet C, Frank D, Bolch WE, and Desbree A, "Bone marrow dosimetry for the Ra-223 radioarmaceutical based on skeletal absorbed fractions for alphas in the adult male", 2016 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 15-19, 2016 [Supplement to *Eur J Nucl Med Mol Imag* **43**: S422 (2016)].
260. Olguin E^G, Flampouri S, and Bolch WE, "Development of proton tissue-equivalent materials for dosimetry studies to assess patient out-of-field organ dose", 2017 Annual Meeting of the Health Physics Society, Raleigh, NC, July 9-13, 2017 [Supplement to *Health Phys.* **113**: S84 (2017)].
261. O'Reilly SE^G, Khaman K, Plyku D, Brown J^G, Cao X, Li Y, Sgouros G, Fahey F, Treves S, and Bolch WE, "Dosimetry for pediatric FDG molecular imaging studies", 2017 Annual Meeting of the American Association of Physicists in Medicine, Denver, CO, July 30 to August 3, 2017 [Supplement to *Med Phys* **44**: 3252 (2017)].
262. Marshall E^G, Rajderkar D, Brown J^G, Stepusin EA, and Bolch WE, "Creation of a pediatric organ dose database for diagnostic fluoroscopy procedures", 2017 Annual Meeting of the American Association of Physicists in Medicine, Denver, CO, July 30 to August 3, 2017 [Supplement to *Med Phys* **44**: 3196 (2017)].
263. Brown J^G, Li G, Frey E, Treves ST, Fahey F, and Bolch WE, "Assessing patient risk undergoing diagnostic imaging with ^{99m}Tc-dimercaptosuccinic acid as a function of waist size, renal volume, and renal depth", 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018. [Supplement to *J Nucl Med* **59**: 476 (2018)].
264. Kesner AL, Olguin E^G, Zanzonico P, and Bolch WE, "MIRDCalc v1.0 – A community spreadsheet tool for organ-level radiopharmaceutical absorbed dose calculations", 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018. [Supplement to *J Nucl Med* **59**: 473 (2018)].
265. Li Y, O'Reilly S^G, Plyku D, Treves ST, Fahey F, Cao X, Brown JL, Sexton-Stallone B, Bolch WE, Sgouros G, Frey EC, "Limitations of weight-based pediatric dosing guidelines in ^{99m}Tc-DMSA renal SPECT", 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018. [Supplement to *J Nucl Med* **59**: 309 (2018)].
266. Li Y, O'Reilly S^G, Plyku D, Treves ST, Fahey F, Cao X, Brown JL, Sexton-Stallone B, Bolch WE, Sgouros G, Frey EC, "Towards weight-specific dosing based on objective image quality measures for ^{99m}Tc-DMSA SPECT",

2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018. [Supplement to *J Nucl Med* **59**: 308 (2018)].

267. Josefsson A, Hobbs RF, Ranka S, Schwarz BC, Olguin EA, Carvalho JWA, Buchpiguel AC, Sapienza MT, Bolch WE, and Sgouros G, "Case Study: Evaluating new University of Florida hybrid pediatric phantoms and tissue weighting factors from ICRP Publication 103 for diagnostic dosimetry", 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018. [Supplement to *J Nucl Med* **59**: 1005 (2018)].
268. Tran T, Brown J, Borrego D, Balter S, "Brain and eye lens doses to operators in interventional radiology: A Monte Carlo study using hybrid computational phantoms", 2018 Annual Meeting of the Health Physics Society, Cleveland, OH, July 15-19, 2018. [Supplement to *Health Phys* **115**: S79 (2018)].
269. Brown J, Kwak D, Duncan J, and Bolch WE, "Monte Carlo reconstruction of organ dose in patients undergoing PICC and TIPS fluoroscopically guided interventions", 2018 Annual Meeting of the American Association of Physicists in Medicine, Nashville, TN, July 29 – August 2, 2018 [Supplement to *Med Phys* **45** (June 2018)].
270. Paulbeck C and Bolch WE, "Generating fetal doses for pregnant survivors of the atomic bombs in Hiroshima and Nagasaki", 2018 Annual Meeting of the American Association of Physicists in Medicine, Nashville, TN, July 29 – August 2, 2018 [Supplement to *Med Phys* **45** (June 2018)].
271. Sechopoulos I, Rogers DW, Bazalova-Carter M, Bolch WE, Heath E, McNitt-Gray M, Sempau J, Williamson J, "RECORDS: Improved reporting of Monte Carlo radiation transport studies", 2018 Annual Meeting of the American Association of Physicists in Medicine, Nashville, TN, July 29 – August 2, 2018 [Supplement to *Med Phys* **45** (June 2018)].
272. Marshall EL, Rajderkar D, Brown J, Stepusin E, Borrego D, and Bolch WE, "A novel method to estimate radiation organ doses in pediatric fluoroscopy studies", 2018 Annual Meeting of the American Association of Physicists in Medicine, Nashville, TN, July 29 – August 2, 2018 [Supplement to *Med Phys* **45** (June 2018)].
273. Marshall E^G, Rajderkar D, Brown J^G, Stepusin E^A, Borrego D^A, and Bolch WE, "Development of an organ dose coefficient database for pediatric diagnostic fluoroscopy studies: Understanding the epidemiological application", 2018 Conference on Radiation & Health, Chicago, IL, September 23-25, 2018.
274. El Basha^U D, Furuta T, Iyer SR, and Bolch WE, "A scalable and deformable stylized model of the adult human eye for radiation dose assessment", 2018 Annual Meeting of the Biomedical Engineering Society, Atlanta, GA, October 17-20, 2018.
275. Bowles EJA, Pole JD, Furst A, Bartels U, Kwan ML, Cheng, SY, Marlow E, Greenlee R, Rahm A, Stout NK, Weinmann S, Bolch WE, Theis K, Deosaransingh KA, Smith-Bindman R, Miglioretti DL, "Trends in medical imaging use in children with central nervous system tumors", 2019 Annual Meeting of the American Society for Preventive Oncology (ASPO), Tampa, FL, March 10-12, 2019.
276. Kwan ML, Miglioretti DL, Marlow E, Bowles EJA, Weinmann S, Cheng S, Deosaransingh KA, DeVault J, Francisco M, Lakoma M, Martinez YT, Theis MK, Moy L, Munneke JR, Jenkins CL, Luce C, Multerer D, Chavan P, Duncan JR, Bolch WE, Kushi LH, Rahm AK, Greenlee R, Stout NK, Pole JD, Smith-Bindman R, "Trends in medical imaging from 1996-2016 in pregnant women in North America: The Radiation-Induced Cancers (RIC) Study, 2019 Annual Meeting of the Health Care Systems Research Network (HCSRN), Portland, OE, April 8-10, 2019.
277. Hobbs R, Thorek D, Josefsson A, Abou D, Bolch WE, and Sgouros G, "Application of a trabecular and cellular model of bone marrow dosimetry for targeted Ra-223 therapy", 2019 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 22-25, 2019, [Supplement to *J Nucl Med* **60**:139 (2019)].
278. Brown JL^G, Li Y, Frey EC, Plyku D, Sgouros G, Fahey FH, Sexton-Stallone B, Cao X, Treves ST, and Bolch WE, "Pediatric S values for a multi-region brain model", 2019 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 22-25, 2019, [Supplement to *J Nucl Med* **60**:1631 (2019)].
279. Plyku D, Sexton-Stallone B, Fahey F, Cao X, Goodkind A, Zurakowski D, Li Y, Ghaly M, Brown J, Bolch W, Frey E, Treves ST, and Sgouros G, "Determination of renal Tc-99m DMSA pharmacokinetics in pediatric patients: Implications for current dosing guidelines in pediatric imaging", 2019 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 22-25, 2019, [Supplement to *J Nucl Med* **60**:153 (2019)].
280. Li Y, Brown JL^G, O'Reilly SA, Plyku D, Treves ST, Fahey FH, Sexton-Stallone B, Bolch WE, Sgouros G, and Frey EC, "Patient girth is better than weight for selecting administered activity in renal pediatric imaging", 2019

Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 22-25, 2019, [Supplement to *J Nucl Med* **60**:154 (2019)].

281. Griffin K, Paulbeck C^G, Bolch WE, Cullings H, Egbert S, Funamoto S, Sato T, Endo A, Hertel N, Lee C, “Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: children and adults”, 2019 Annual Meeting of the Health Physics Society, Orlando, FL, July 7-11, 2019 [Supplement to *Health Phys* **117**:41 (2019)].
282. Paulbeck C^G, Griffin K, Bolch WE, Cullings H, Egbert S, Funamoto S, Sato T, Endo A, Hertel N, Lee C, “Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: pregnant females”, 2019 Annual Meeting of the Health Physics Society, Orlando, FL, July 7-11, 2019 [Supplement to *Health Phys* **117**:68-69 (2019)].
283. Domal S, Bolch WE, Paulbeck C^G, Maynard MA, “The University of Florida library of pregnant female hybrid computational phantoms”, 2019 Annual Meeting of the American Association of Physicists in Medicine, San Antonio, TX, July 14-18, 2019 [Supplement to *Med Phys* **46**:e520 (2019)].
284. Correa C^G, Bolch WE, Olguin EA, Macartney EU, Hsi W, Li Zuofeng, Flampouri S, “Out-of-field doses of neutrons generated by pencil-beam scanning protons irradiating proton-tissue equivalent materials”, 2019 Annual Meeting of the American Association of Physicists in Medicine, San Antonio, TX, July 14-18, 2019 [Supplement to *Med Phys* **46**:e97 (2019)].
285. Griffin K, Paulbeck C^G, Bolch WE, Cullings H, Egbert S, Funamoto S, Sato T, Endo A, Hertel N, Lee C, “Groundwork for potential revision of radiation exposure assessments for the Japanese atomic bomb survivors”, 2019 Annual Meeting of the American Association of Physicists in Medicine, San Antonio, TX, July 14-18, 2019 [Supplement to *Med Phys* **46**:e457 (2019)].
286. Mahesh M, Mettler FA, Vetter R, Miller D, Frush DP, Chatfield M, Royal H, Milano M, Ansari A, Spelic D, Elee J, Sherrier R, Guebert, and Bolch WE, “Medical radiation exposure of patients in the United States”, 2019 Annual Meeting of the Radiological Society of North America, Chicago, IL, December 1-6, 2019.
287. Kesner A, Zanzonico P, Lafontaine D, Bolch WE, “Relative performance and variation of organ level dosimetry using commonly available software”, 2020 Specialty Winter Workshop – Challenges and Solutions in the Era of Targeted Radionuclide-Based Therapy, Big Sky, MT, March 4-6, 2020.
288. Hass B, Chu B, Wang Y, Yu S, Bolch WE, Smith-Bindman R, “Dose length product to effective dose coefficients using Monte Carlo simulations of patient-matched anthropomorphic phantoms”, 2020 Annual Meeting of the American Roentgen Ray Society, Chicago, IL, May 3-8, 2020.
289. Hass B, Chu B, Wang Y, Yu S, Bolch WE, Smith-Bindman R, “Dose length product to effective dose coefficients for pediatric chest, abdomen, and pelvis CT”, 2020 Annual Meeting of the American Roentgen Ray Society, Chicago, IL, May 3-8, 2020.
290. Carter LM, Ocampo-Ramos JC, Zanzonico PB, Bolch WE, and Kesner AL, “Comparative evaluation of the new MIRDCalc dosimetry software across a compendium of radiopharmaceuticals”, 2021 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Washington, DC, June 12-15, 2021 [Supplement to *J Nucl Med* **64**: 1581 (2021)].
291. Ocampo-Ramos JC, Carter LM, Kesner AL, Zanzonico PB, Brown JL^G, and Bolch WE, “Risk Index: A rational alternative to effective dose for procedure optimization”, 2021 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Washington, DC, June 12-15, 2021 [Supplement to *J Nucl Med* **64**: 1583 (2021)].
292. Xu J, Brown JL^G, Li Y, Frey EC, Plyku D, Sgouros G, Fahey FH, Sexton-Stallone B, Cao X, Treves ST, and Bolch WE “Toward improved pediatric dosing guidelines for Tc-99m MAG3 renal function imaging”, 2021 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Washington, DC, June 12-15, 2021 [Supplement to *J Nucl Med* **64**: 1428 (2021)].
293. Domal S^G, Kofler C^G, and Bolch WE, “Organ and detriment-weighted dose rate coefficients for exposure to radionuclide-contaminated soil in pregnant women”, 2021 Annual Meeting of the Health Physics Society, Virtual Meeting, July 25-29, 2021. [Supplement to *Health Phys* **122**:(4) (2021)].
294. Domal S^G, Correa C^G, Paulbeck CA, Griffin K, Sato T, Funamoto S, Cullings H, Egbert S, Endo A, Hertel N, Lee C, and Bolch WE, “Atomic bomb survivor dosimetry of Nagasaki factory workers”, 2021 Annual Meeting of the Health Physics Society, Virtual Meeting, July 25-29, 2021. [Supplement to *Health Phys* **122**:(4) (2021)].
295. President BNC^G, Brown JLA, Domal SL^G, Camilo CM^G, and Bolch WE, “S-values for brain subregions and lacrimal glands to support radionuclide and radiopharmaceutical dosimetry in the mesh-type ICRP

- reference phantoms”, 2021 Annual Meeting of the Health Physics Society, Virtual Meeting, July 25-29, 2021. [Supplement to *Health Phys* **122**:(4) (2021)].
296. Nosrati N, Kofler C^G, Sexton-Stallone B, MacDougall R, Bolch WE, and Fahey F, “Patient-specific estimates of absorbed and effective dose in pediatric ¹⁸F¹⁸FDG PET/CT imaging studies”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e311 (2021)].
297. Shin JW, Xing S, Hammi A, Pursley J, Correa C^G, Withrow J^U, Domal S^G, Bolch WE, Paganetti H, and Grassberger C, “Computing dose to circulating blood cells using whole-body flow simulations”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e252 (2021)].
298. Correa-Alfonso C^G, Withrow J^U, Domal S^G, Grassberger C, Xing S, Shin J, Paganetti H, and Bolch WE, “Developing internal liver vascular models for radiation therapy assessment of dose to circulating lymphocytes”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e361 (2021)].
299. Domal S^G, Correa C^G, Paulbeck C^A, Griffin K, Sato T, Funamoto S, Cullings H, Egbert S, Endo A, Hertel N, Lee C, and Bolch WE, “Fetal and maternal atomic bomb survivor dosimetry using kneeling and lying survivor postures of the J45 pregnant female phantoms”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e418 (2021)].
300. Kofler C^G, Olguin E^A, Stepusin E^J, Long D^A, Kwan M, Miglioretti D, Smith-Bindman R, Bolch WE, “An assessment of uncertainties in pediatric CT organ dosimetry given a potential lack of knowledge of scan parameters and individual body morphometry”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e311 (2021)].
301. Xing S, Pursley J, Shin JW, Correa C^G, Domal S^G, Withrow J^U, Bolch WE, Grassberger C, and Paganetti H, “Liver 4D blood flow model for dose calculation to circulating blood and lymphocytes”, 2021 Annual Meeting of the American Association of Physicists in Medicine, Virtual Meeting, July 25-29, 2021. [Supplement to *Med Phys* **48**:e252 (2021)].
302. Dozic AV, Aris JP, Correa-Alfonso C^G, Domal S^J, Withrow J^U, Xing S, McCullum L, Grassberger C, Paganetti H, Bolch WE, “An anatomically improved mesh-based model of the kidneys in the ICRP reference adult phantoms”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
303. President B^G, Dozic AV^U, Aris JP, Bolden RE^G, Ellis LE^U, Colon-Ortiz C^U, Sforza A^U, Sgouros G, Frey EC, Hobbs RF, Bolch WE, “A histology-based 3D model of the renal cortical labyrinth to support alpha-particle radiopharmaceutical therapy”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
304. Carter L, Ocampo-Ramos J, Krebs S, Olguin E^A, Zanzonico P, Bolch WE, Kesner AL, “Investigating the impact of 3D tumor shape features on dosimetric outcomes”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
305. Carter L, Ocampo-Ramos J, Bolch WE, Zanzonico P, Kesner AL, “MIRDfit: A tool for fitting of biodistribution time-activity data for internal dosimetry”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
306. Ocampo-Ramos J, Carter L, Kesner AL, Zanzonico P, Kofler C^A, Domal S^J, Dawson R^G, Baggett J^G, Bolch WE, “MIRDct: A computed tomography dosimetry software – initial development and overview”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
307. Li Y, Brown J^{LA}, Xu J, Chen J, Ghaly M, Cao X, Du Y, Fahey FH, Bolch WE, Sgouros G, Frey EC, “Justification for and in-silico evaluation of new local-body-morphometry based dosing method for pediatric Tc-99m DMSA SPECT”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* **xx:xxxx** (2022)].
308. Dawson R^G, Baggett J, Wang Y, Smither W, Dinwiddie L, Wehmeier S, Kofler C, Bolch WE, “The UF-MSK computational phantom library of adult and pediatric phantoms for medical dosimetry”, 2022 Annual Meetings of the Health Physics Society, Spokane, WA, July 17-21, 2022. [Supplement to *Health Phys* **xx:xxxx** (2022)].
309. Cullings H, Domal S^G, Correa C^G, Paulbeck C^A, Griffin K, Sato T, Funamoto S, Cullings H, Egbert S, Endo A, Hertel N, Lee C, and Bolch WE, “New developments in the dosimetry of atomic bomb survivors”, 2022

National and Regional Seminars and Lectures – WE Bolch Presenter

1. "The Role of Space Nuclear Power and Radiation Protection in NASA's Space Exploration Initiative", Francis Marion University, **Invited Speaker**, November 17, 1992.
2. "Microdosimetry and its Role in Radiation Protection", Department of Chemistry and Physics, Francis Marion University, November 18, 1992.
3. "The Role of Space Nuclear Power and Radiation Protection in NASA's Space Exploration Initiative", New England Chapter of the Health Physics Society, **Invited Speaker**, November 19, 1992.
4. "Current Status of Health Physics Academic Programs", New England Chapter of the Health Physics Society, **Invited Speaker**, June 5, 1995.
5. "New Advances in Medical Dosimetry", Georgia Institute of Technology, Department of Nuclear Engineering, November 20, 1998.
6. "Current Research in Health and Medical Physics at the University of Florida", Francis Marion University, Florence, South Carolina, November 30, 1999.
7. "Radiation Detection Fundamentals", **Invited Speaker**, 5th Annual Technical Meeting, Savannah River Chapter of the Health Physics Society, Aiken, South Carolina, April 27, 2001.
8. "Advances in Skeletal Dosimetry Through NMR Microscopy", **Invited Speaker**, 5th Annual Technical Meeting, Savannah River Chapter of the Health Physics Society, Aiken, South Carolina, April 27, 2001.
9. "Educational and Research Opportunities in Medical and Health Physics at UF", Francis Marion University, Florence, South Carolina, October 10, 2002.
10. "Educational and Research Opportunities in Medical and Health Physics at UF", Furman University, Greenville, South Carolina, November 19, 2002.
11. "Basic Radiological Health and Radiation Biology", Nuclear Incident Training, Escambia County Health Department, Pensacola, Florida, August 13, 2003.
12. "Basic Radiological Health and Radiation Biology", Nuclear Incident Training, Okeechobee County Health Department, Sarasota, Florida, January 21, 2003.
13. "Health Physics – careers in radiation protection", Science Teachers Workshop, Society of Health and Medical Physics Students, Department of Nuclear & Radiological Engineering, April 22, 2004.
14. "An Image-Based Skeletal Reference Male of the Adult Male Radionuclide Therapy Patient," **Invited Speaker**, Purdue University, West Lafayette, Indiana, November 30, 2004.
15. "Advances in Skeletal Dosimetry through Microimaging", **Invited Speaker**, Oak Ridge National Laboratory, August 2, 2005.
16. "Basics of Radiation Safety: Radiation Dose and Risk" **Invited Speaker**, U.S. Food and Drug Administration, Workshop on Imaging in Medicine, May 15, 2006.
17. "X-ray and CT Instruction" **Invited Speaker**, U.S. Food and Drug Administration, Workshop on Imaging in Medicine, May 15, 2006.
18. "Nuclear Medicine Instrumentation" **Invited Speaker**, U.S. Food and Drug Administration, Workshop on Imaging in Medicine, May 15, 2006.
19. "Research Activities at the University of Florida", **Invited Speaker**, Centers for Disease Control and Prevention, Workshop on the Use of Nuclear Medicine Equipment to Assess Internal Contamination, Atlanta, Georgia, June 20-21, 2006.
20. "Health Physics and Medical Physics at the University of Florida – Academic Programs and Research Activities", **Invited Speaker**, Science Seminar Series, Valdosta State University, Valdosta, Georgia, September 7, 2006.
21. "Customized Phantoms and Organ Models for Medical Dosimetry Studies – Stylized to Voxel to Hybrid", **Invited Speaker**, Atlanta Chapter of the Health Physics Society, Atlanta, Georgia, September 12, 2006.
22. "Patient Phantoms for Medical Dosimetry", **Invited Speaker**, Centers for Disease Control and Prevention, Workshop on the Medical Doses of Radiation, Atlanta, Georgia, November 8-9, 2006.
23. "Customized Phantoms and Organ Models for Medical Dosimetry Studies – Stylized to Voxel to Hybrid", **Invited Speaker**, Medical Physics Graduate Seminar, Duke University, Durham, North Carolina, March 20, 2007.

24. "Customized Phantoms and Organ Models for Medical Dosimetry Studies – Stylized to Voxel to Hybrid", **Invited Speaker**, Radiation Epidemiology Branch, National Cancer Institute, Bethesda, Maryland, April 12, 2007.
25. "UF Hybrid Phantom Series and their Applications to CT Organ Dosimetry, **Invited Speaker**, Radiation Epidemiology Branch, National Cancer Institute, Bethesda, Maryland, April 16, 2008.
26. "Hybrid Computational Phantoms and their Applications to Patient Dose Reconstruction", **Invited Speaker**, Graduate Programs in Medical Physics, University of Chicago, Chicago, IL, November 5, 2009.
27. "Use of Portable Radiation Instrumentation for Radiological Triage", **Invited Speaker**, Workshop on Internal Contamination Monitoring, Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, February 10, 2010.
28. "Computational and Physical Phantoms for Establishing a CT Organ Dose Library", **Invited Speaker**, GE Healthcare, Waukesha, WI, February 5, 2011.
29. "NCRP Report No. 161 – Management of Persons Contaminated with Radionuclide **Invited Speaker**, Advanced Rapid Response Workshop, State of Florida Bureau of Radiation Control, Orlando, FL, March 19, 2011.
30. "Guidance for radiological triage using handheld instrumentation following a terrorist event", **Invited Speaker**, Advanced Rapid Response Workshop, State of Florida Bureau of Radiation Control, Orlando, FL, March 19, 2011.
31. "Guidance for radiological triage using handheld instrumentation following a mass casualty event", **Invited Speaker**, Bioassay Roundtable, Radiation Studies Branch, US Centers for Disease Control and Prevention, Marriott Century Center, Atlanta, GA, August 30-31, 2011.
32. "The UF series of hybrid anatomic phantoms – Applications to patient dosimetry in CT, nuclear medicine, and interventional fluoroscopy", **Invited Speaker**, Research Seminar Series, Department of Imaging Physics, MD Anderson Cancer Center, Houston, Texas, May 2, 2013.
33. "Computational and experimental methods of assessing organ and effective dose to airline passengers screened via x-ray backscatter imaging systems", **Invited Speaker**, Presentation to the National Academy of Sciences, Committee on Airport Passenger Screening, January 16, 2014, Washington, DC.
34. "The Life Span Study of the Atomic Bomb Survivors – A review of organ dose estimates and the J45 phantom series", **Invited Speaker**, Presentation to the Medical Physics Grand Rounds, Memorial Sloan-Kettering Cancer Center, November 11, 2019, New York, NY.
35. "Cancer Risks Following Medical Imaging: The Scare, The Science, and The Path to Resolution", **Invited Speaker**, Rothrock Lecture Series, Department of Nuclear Engineering, Texas A&M University, August 23, 2020 – Video Conference.
36. "The Life Span Study of the Atomic Bomb Survivors – A review of organ dose estimates and the J45 phantom series", **Invited Speaker**, Presentation to the Mid-Atlantic Chapter of the American Association of Physicists in Medicine (AAPM), October 2, 2020 – Zoom Virtual Meeting.
37. "The 2020 UNSCEAR Review of the Levels and Effects of Radiation Exposure Following the Fukushima Nuclear Power Plant Accident", **Invited Speaker**, Presentation to the South Texas Chapter of the Health Physics Society (HPS), April 24, 2021 – Zoom Virtual Meeting.

National Short Courses and Professional Enrichment Presentations – WE Bolch Presenter

1. "Internal Dosimetry by MIRD and MIRDOSE: Theory and Applications", Health Physics Society Professional Enrichment Program, 1992 Annual Meeting, Columbus, Ohio, June 21, 1992.
2. "The MIRD Schema", Society of Nuclear Medicine Categorical Seminar Program, 1993 Annual Meeting, Toronto, Ontario, June 7, 1993.
3. "Internal Dosimetry by MIRD and MIRDOSE: Theory and Dose Calculations", Health Physics Society Professional Enrichment Program, 1993 Annual Meeting, Atlanta, Georgia, July 11, 1993.
4. "The MIRD Schema", Society of Nuclear Medicine Categorical Seminar Program, 1994 Annual Meeting, Orlando, Florida, June 4, 1994.
5. "Physical and Chemical Interactions of Radiation with Living Tissues", 1994 Health Physics Society Summer School, University of California at Davis, Davis, California, June 20-24, 1994.
6. "Internal Dosimetry by MIRD and MIRDOSE: Theory and Dose Calculations", Health Physics Society Professional Enrichment Program, 1994 Annual Meeting, San Francisco, California June 26, 1994.

7. "The MIRD Schema", Society of Nuclear Medicine Categorical Seminar Program, 1995 Annual Meeting, Minneapolis, Minnesota, June 11, 1995.
8. "Internal Dosimetry by MIRD and MIRDOSE: Theory and Dose Calculations", Health Physics Society Professional Enrichment Program, 1995 Annual Meeting, Boston, Massachusetts, July 23-27, 1995.
9. "Internal Dosimetry by MIRD and MIRDOSE: Theory and Dose Calculations", Health Physics Society Professional Enrichment Program, 1996 Annual Meeting, Seattle, Washington, July 21-25, 1996.
10. "Basics of External Dosimetry", 1996 Health Physics Society Summer School, University of Washington, Seattle, Washington, July 15, 1996.
11. "The MIRD Schema and Its Application to Suborgan Dosimetry", Society of Nuclear Medicine Categorical Seminar Program, 1997 Annual Meeting, San Antonio, Texas, June 1, 1997.
12. "Current Status of Health Physics Academic Programs in the U.S. and Abroad", Health Physics Society Continuing Education Program, 1997 Annual Meeting, San Antonio, Texas, June 29 - July 3, 1997.
13. "New MIRD Techniques for Medical Internal Dosimetry", Health Physics Society Professional Enrichment Program, 1997 Annual Meeting, San Antonio, Texas, June 29 - July 3, 1997.
14. "Utilization of the MIRD Schema: From Acquisition of Clinically Measurable Activity Distributions to Model Implementation", Continuing Education Session, 45th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 7-11, 1998.
15. "Utilization of the MIRD Schema: From Acquisition of Clinically Measurable Activity Distributions to Model Implementation", Continuing Education Session, 47th Annual Meeting of the Society of Nuclear Medicine, St. Louis, Missouri, June 3-7, 2000.
16. "UF Skeletal Reference Model of the Adult Male Radionuclide Therapy Patient", 2005 Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 19-22, 2004.
17. "Advances in Customized Phantoms and Organ Models for Medical Dosimetry Studies – Stylized to Voxel to Hybrid", Health Physics Society Professional Enrichment Program, 2007 Annual Meeting, Portland, Oregon, July 8-11, 2007.
18. "Anatomical models and radionuclide S values" in Accuracy and Precision in Internal Dose Assessment: Dosimetry and Response, MIRD Continuing Education Session, 2008 Annual Meeting of the Society of Nuclear Medicine, New Orleans, LA, June 14-18, 2008.
19. "How are risks and toxicities associated with a particular absorbed dose expressed?" in Radiation Risk / Toxicity versus Benefits of Diagnostic and Therapeutic Nuclear Medicine Procedures: How to Best Put These in Perspective for Both Clinicians and Patients?, MIRD Continuing Education Session, 2010 Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 6-9, 2010.
20. "NCRP Report No. 161 – Management of Persons Contaminated with Radionuclides", Health Physics Society Professional Enrichment Program, 2011 Annual Meeting, Palm Beach, Florida, July 28, 2011.
21. "Review of BEIR VII Cancer Risk Models and Their Revisions by EPA", MIRD Self-Assessment Module (SAM), 2012 Annual Meeting of the Society of Nuclear Medicine, Miami, FL, June 12, 2012.
22. "Radiation Protection in Nuclear Medicine", MIRD Continuing Education Session (CE), Annual Meeting of the Society of Nuclear Medicine, Miami, FL, June 12, 2012.
23. "Recording and Reporting Patient Dose – Nuclear Medicine Dose Indices", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
24. "The Management of Imaging Procedure Doses – Nuclear Medicine", 2013 Annual Meeting of the American Association of Physicists in Medicine, Indianapolis, Indiana, August 4-8, 2013 [Supplement to *Med Phys* **40** 686 (2013)].
25. "Recording and Reporting Patient Dose – Nuclear Medicine Dose Indices", 2013 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, December 2-6, 2013.
26. "Review of Anatomical Models of Human Anatomy – Stylized to Voxel to Hybrid", Session on Developments in Monte Carlo Models for Medical Imaging, 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 24, 2014.
27. "Format Types and Morphometry Categories of Computational Phantoms – Applications to Fluoroscopy Dosimetry", Session on Patient Dose from Diagnostic Radiation, 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 24, 2014.
28. "LNT and Alternative Risk-Based Approaches to Patient Dosimetry", MIRD Continuing Education Session (CE), Annual Meeting of the Society of Nuclear Medicine, Baltimore, MD, June 8, 2015.

29. "The MIRD Schema at the organ level", MIRD Categorical Seminar, 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018.
30. "Overview of radiobiology relevant to diagnostic agents", MIRD Categorical Seminar, 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018.
31. "Evaluation of radiation dose to patients from radiopharmaceuticals", ICRP Continuing Education Session, 2018 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23-26, 2018.
32. "The ICRP series of reference phantoms and their application to nuclear medicine dosimetry", Continuing Education Session, 2019 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA June 22-25, 2019.

Regional Professional Meeting Presentations – WE Bolch Presenter

1. Wesley E. Bolch, "Neutron Dosimetry by Computer-Aided Design", Florida Chapter of the Health Physics Society, Sarasota, Florida, August, 1985.
2. WE Bolch, JK Thomas, KL Peddicord, SM Stevenson, AJ Willoughby, "A Radiological Assessment of Space Nuclear Power Operations Near Space Station Freedom", Fall Meeting of the South Texas Chapter - Health Physics Society, San Antonio, Texas, January 13, 1990.
3. WE Bolch, "The MIRD Technique", Joint Spring Meeting of the Florida Chapters of the Health Physics Society and American Nuclear Society, Gainesville, Florida, April 25, 1997.
4. WE Bolch, "Biomedical Engineering Research and Academic Program at the University of Florida", Spring Meeting of the Florida Chapter of the Health Physics Society, Gainesville, Florida, April 24, 1998.
5. WE Bolch, "NMR Microscopy of Trabecular Bone", **Invited Speaker**, Southeastern Microscopy Society, Gainesville, Florida, April 9, 1999.
6. WE Bolch, "Review of Basic Detector Theory", Savannah River Chapter of the Health Physics Society, Fifth Annual Technical Seminar, Friday April 27th, 2001.
7. WE Bolch, "Advances in Skeletal Dosimetry Through NMR Microscopy", **Invited Speaker**, Savannah River Chapter of the Health Physics Society, Fifth Annual Technical Seminar, Friday April 27th, 2001.
8. WE Bolch, "An Assessment of Anthropometric Parameters for Scaling Radiation Dose Estimates to Active Marrow", Florida Chapter of the Health Physics Society", St. Petersburg, Florida, April 24, 2002.
9. WE Bolch, "Creation of two tomographic models of pediatric patients in the first year of life", Florida Chapter of the Health Physics Society, St. Petersburg, Florida, April 24, 2002.
10. WE Bolch, "Hybrid phantoms for patient medical dosimetry – reference, patient-dependent, and patient-specific anatomic models", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Kissimmee, Florida, March 6-7, 2009.
11. WE Bolch, "Hybrid phantoms for patient medical dosimetry – reference, patient-dependent, and patient-specific anatomic models", **Invited Speaker**, Florida Chapter of the Health Physics Society, Orlando, Florida, April 6, 2009.
12. WE Bolch, "Patient-specific nuclear medicine dosimetry – Reducing imaging dose to children", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 2-4, 2010.
13. WE Bolch, "Guidance for radiological triage using handheld instrumentation following a terrorist event", **Invited Speaker**, Florida Chapter of the Health Physics Society, Clearwater, Florida, September 24, 2010.
14. WE Bolch, PB Johnson*, and D Borrego*, "Review of NCRP Report 168 and UF research on patient doses in fluoroscopically guided interventions", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 25, 2011.
15. WE Bolch, "Computational and physical phantoms for establishing a CT organ dose library", CT Vendors Summit, **Invited Speaker**, Hosted by the UF Department of Radiology, Gainesville, Florida, May 17, 2011.
16. WE Bolch, "Feasibility of a patient-organ dose tracking system for diagnostic imaging – CT, fluoroscopy, and nuclear medicine", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 28, 2014.
17. DW Jokisch and WE Bolch, "Recent ICRP Recommendations on Internal Dosimetry", North Carolina Chapter of the Health Physics Society, Raleigh, NC, March 2-3, 2017.

18. WE Bolch, **Invited Speaker**, "Update on Activities of the International Commission on Radiological Protection", Florida Chapter of the Health Physics Society, Lake Worth, FL, April 6-7, 2017.

Local Seminars and Lectures – *WE Bolch Presenter*

1. "New Frontiers in Internal Radiation Dosimetry", Department of Nuclear Engineering Sciences, University of Florida, Gainesville, Florida, July 11, 1994.
2. "Recent Advances in Nuclear Medicine Dosimetry", Department of Nuclear Engineering Sciences, University of Florida, Gainesville, Florida, April 6, 1995.
3. "NMR Microscopy of Trabecular Bone", Biomedical Engineering Seminar Series, April 6, 1999.
4. "Research in Internal Dosimetry Biokinetic Models for the CDC", Department of Nuclear and Radiological Engineering, University of Florida, September 7, 2000.
5. "Radionuclide Therapies for Cancer – Need for Predictive Models of Marrow Toxicity", Seminar, Department of Nuclear & Radiological Engineering, October 16, 2003.
6. "Radionuclide Therapies for Cancer – Need for Predictive Models of Marrow Toxicity", Seminar, Department of Biomedical Engineering, January 27, 2004.
7. "Radionuclide Therapies for Cancer – Need for Predictive Models of Marrow Toxicity", Lecture, ABE 2062 – Biology for Engineers, April 2, 2004.
8. "An Image-Based Skeletal Canine Model for Pre-Clinical Evaluations of Osteosarcoma Molecular Radiotherapy" Seminar to the UF Department of Pediatrics, May 24, 2006.
9. "Skeletal Dosimetry and Whole-Body Phantoms for Molecular Radiotherapy", Seminar to the UF Department of Pediatrics, May 23, 2007.
10. "Advances in Computational Models of Bone Marrow Radiation Dosimetry Through Microimaging", Seminar to the UF Department of Biomedical Engineering, December 6, 2010.
11. "Thinking of Becoming an Engineer?", Society of Health and Medical Physics Students, Workshop presented to the Honors Physics Class, Apopka High School, November 21, 2011.
12. "Rapid Methods for In-Field Radiological Triage of Persons Contaminated Internally with Radionuclides", Seminar to the UF Department of Radiation Oncology, November 8, 2011.
13. "Hyundai Hope Grant – Development of New Treatments for Pediatric Osteosarcoma", Ocala Royal Dames for Cancer Research, Shands Cancer Center Auditorium, April 10, 2013.
14. "Cancer Risks Following Medical Imaging – The Scare, The Science, and The Path to Resolution", J. Crayton Pruitt Family Department of Biomedical Engineering, Departmental Seminar Series, September 30, 2019.
15. "Cancer Risks Following Medical Imaging – The Scare, The Science, and The Path to Resolution", University of Florida Distinguished Professor Seminar Series, March 11, 2021.

SPONSORED RESEARCH ACTIVITIES

Current Research Grants and Contracts

1. *Dose Reduction in Pediatric Molecular Imaging - NURBS Phantoms and Organ Dosimetry*, (R01 EB013558), National Institute for Biomedical Imaging and Bioengineering (NIBIB), \$268,133 (direct), \$408,903 (total), Wesley E. Bolch, **Principal Investigator - JHMI Subaward to UF**, May 15, 2017 – February 28, 2022, Peer Review, 1 Student ([UF Project P0044579](#))
2. *Risk of Cancer in Childhood and Adolescence Associated with Medical Imaging* (R01 CA185687), National Cancer Institute, \$304,161 (direct), \$463,846 (total), Wesley E. Bolch, **Principal Investigator - UCSF Subaward to UF**, March 1, 2015 – May 31, 2022, Peer Review, 2 Students ([UF Project P0119333](#))
3. *MIRDCalc - A Community Tool for Deriving and Reporting Patient Organ Doses in Nuclear Medicine, Computed Tomography, and Hybrid Imaging* (U01 EB028234), National Institute for Biomedical Imaging and Bioengineering (NIBIB), \$908,280 (direct), \$1,268,311 (total), Wesley E Bolch, **Multiple Principal Investigator - MSKCC (Kesner)**, September 13, 2019 – May 31, 2024, Peer Review, 3 Students ([UF Project P0141737](#))
4. *Developing whole-body computational phantoms for blood dosimetry to model the impact of radiation on the immune system*, (R01 CA248901) National Cancer Institute (NCI), \$766,403 (direct), \$1,073,468 (total), Wesley E. Bolch, **Multiple Principal Investigator - MGH (Paganetti)**, July 1, 2020 – June 30, 2025, Peer Review, 2 Students ([UF Project - P0161162](#))
5. *Improving Pediatric SPECT Imaging: Enhanced Lesion Detection with Dose Reduction through Advanced Reconstruction and Motion Correction* (R01 EB029315) National Institute for Biomedical Imaging and Bioengineering (NIBIB), Wesley E. Bolch, **Consultant**, June 1, 2020 – May 30, 2025, Peer Review.
6. *Aligning Dosimetry and Biomarkers of Lung Injury with Prophylaxis and Mitigation of Damage from Radionuclides and Metals*, (W81XWH2110984) Department of Defense (DoD) Focus Program Award, \$1,091,026 (direct), \$1,573,508 (total), **Principal Investigator - Northwestern University Subaward to UF**, July 1, 2021 – June 30, 2025, Peer Review, 3 Students ([UF Project - No. Pending](#)).

Summary of Currently Active External Grants

| <i>Role</i> | <i>Total</i> | <i>Direct Costs</i> | <i>Indirect Costs</i> |
|---------------------------|--------------------|---------------------|-----------------------|
| Principal Investigator | \$4,788,036 | \$3,338,003 | \$1,450,033 |
| Co-Principal Investigator | \$0 | \$0 | \$0 |
| Investigator | \$0 | \$0 | \$0 |
| Academic Sponsor | \$0 | \$0 | \$0 |
| Totals | \$4,788,036 | \$3,338,003 | \$1,450,033 |

Summary of Currently Active Internal Grants

| <i>Role</i> | <i>Total</i> | <i>Direct Costs</i> | <i>Indirect Costs</i> |
|---------------------------|--------------|---------------------|-----------------------|
| Principal Investigator | \$0 | \$0 | \$0 |
| Co-Principal Investigator | \$0 | \$0 | \$0 |
| Investigator | \$0 | \$0 | \$0 |
| Academic Sponsor | \$0 | \$0 | \$0 |
| Totals | \$0 | \$0 | \$0 |

Past Research Grants and Contracts

1. *Molecular Radiation Effects and Microdosimetry Research*, Engineering Excellence Fund, College of Engineering, Texas A&M University, \$31,000, **Principal Investigator**, 1998.
2. TEES 32525-26130 (NAG 3-944), *Radiological Impact of Space Nuclear Power Applications*, NASA Lewis Research Center, \$75,000, **Co-Principal Investigator**, October 1988 - October 1989, 3 Students.
3. TEES 32525-27410 (NRA-89-OEXP-001), *Design of a General Purpose, Mobile, Multifunctional Radiation Shield for Space Exploration*, NASA - Office of Exploration, \$29,830, **Principal Investigator**, September 1989 - March 1990, 1 Student.
4. TAMRF 32526-6081 (DE-FG05-88ER60707), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$289,680, **Principal Investigator** (September 1991 - Current), **Co-Investigator** (January 1989 - August 1991), July 1988 - March 1992, 18 Students (Total).
5. TAMRF 32526-6081 (DE-FG05-88ER60707), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$96,000, **Principal Investigator**, April 1992 - March 1993, 7 Students (Total).
6. TEES 32525-2613A (NAG 3-944), *Accommodations of Nuclear Components at the Space Station*, NASA Lewis Research Center, \$75,000, **Principal Investigator**, January 1990 - October 1992, 3 Students.
7. TAMRF 32526-6081 (DE-FG05-88ER60707), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$96,000, **Principal Investigator**, April 1992 - March 1993, 7 Students (Total).
8. TEES 32525-41800 (DE-AC05-76OR0003), *Design and Evaluation of Thermoluminescent Dosimeters Based Upon Mixtures of TL Materials*, U. S. Department of Energy, \$50,000, **Principal Investigator**, September 1, 1992 - August 31, 1993, 1 Student.
9. TAMRF 32526-6081 (DE-FG05-88ER60707), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$100,000, **Principal Investigator**, April 1993 - March 1994, 7 Students (Total).
10. TEES 32525-4082 (NAG3-1326), *Investigation of Natural and Man-Made Radiation Effects on Crews on Long-Duration Space Missions*, \$100,000, **Co-Principal Investigator**, June 1992 - December 1993, 2 Students.
11. TAMRF 32526-8744 (DE-FG03-94ER61846), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$95,000, **Principal Investigator**, April 1, 1994 - December 31, 1995, 4 Students.
12. TEES 32525-44750, *Health Physics Research Support to the Comanche Peak Steam Electric Station*, Texas Utilities Company, \$50,000, **Principal Investigator**, April 15, 1994 - April 14, 1995, 2 Students.
13. TEES 32525-41800 (DE-AC05-76OR0003), *Design and Evaluation of Thermoluminescent Dosimeters Based Upon Mixtures of TL Materials*, U. S. Department of Energy, \$50,000, **Principal Investigator**, September 1, 1993 - August 31, 1994, 2 Students.
14. EIES 4910-45-08187-12 (DE-FG03-94ER61846), *Considerations of Beta and Electron Transport in Internal Dose Calculations*, U.S. DOE - Office of Health and Environmental Research, \$146,393, **Principal Investigator**, March 15, 1994 - April 14, 1996, 3 Students.
15. *Recommendations for the Improved Protection of Pediatric Patients undergoing Diagnostic X-ray Procedures*, 1995 Children's Miracle Network, Department of Pediatrics, University of Florida's Shands Clinic, \$19,753, **Co-Principal Investigator**, June 1, 1995 - May 31, 1996.
16. *Development of an Untethered, Simulated Radiation Survey Meter*, Consultect Scientific, Inc., \$144,125, **Co-Principal Investigator** with W. Emmett Bolch, PI, September 1, 1996 to August 31, 1998, 2 Students.
17. *Considerations of Beta and Electron Transport in Internal Dose Calculations*, EIES 4910-45-08187-12 (DE-FG05-95ER62006), , U.S. DOE - Office of Health and Environmental Research, \$100,000, **Principal Investigator**, April 15, 1996 - April 14, 1998, 3 Students.
18. *Radioactive Stents for the Treatment of Restenosis of the Coronary Arteries*, College of Medicine, University of Florida, \$19,989, **Co-Investigator**, August 1, 1998 to July 31, 1999.
19. *Optic-Guided Ultrasound Localization for High-Precision Radiation Therapy*, Biomedical Engineering Program, University of Florida, \$12,871, **Co-Investigator**, November 1, 1998 to October 31, 1999.
20. *Radiation Dosimetry and Associated Risks for Pediatric Radiology*, Children's Miracle Network, University of Florida, \$14,762, **Co-Principal Investigator** , June 1, 1998 to May 31, 1999.

21. *Tomographic Dosimetry Phantoms for Use in Pediatric Radiology*, Biomedical Engineering Program, University of Florida, \$14,915, **Principal Investigator**, November 1, 1998 to August 5, 1999.
22. *Development of a MRI-Based Bone Dosimetry Model and Its Applications to Probabilistic Dose Assessment*, U.S. Department of Energy - Health Physics Faculty Research Award, \$150,000, **Principal Investigator**, September 1, 1996 - August 31, 1999, 2 Students.
23. *Quantifying Molecular Effects of Hypoxia in Radiotherapy*, American Cancer Society, Florida Division, Inc., Pilot Study Grant (F99UF-3), \$13,542, **Principal Investigator**, April 1, 1999 to March 31, 2000.
24. *Molecular Effects of Hypoxia in Radiotherapy*, University of Florida, Division of Sponsored Research, Opportunity Fund (UF 1101799-10), \$83,913, **Principal Investigator**, July 1, 1999 to December 31, 2000, 2 Students
25. *Endoscopic Ultrasound Characterization of the Subregions of the GI Tract*, Biomedical Engineering Program, University of Florida, \$7,900, Manoop Bhutani, MD, Principal Investigator, Wesley E. Bolch, **Co-Investigator**, May 1, 2000 - April 30, 2001, Peer Review, 1 student.
26. *The Effects of Hematopoietic Stem Cell Irradiation on the Biomechanical Properties of Blood Cells*, Biomedical Engineering Program, University of Florida, \$20,000, Wesley E. Bolch, **Principal Investigator**, Roger Transon-Tay and John R. Wingard, Co-Investigators, May 1, 2000 - August 31, 2001, Peer Review, 1 student.
27. *Advances in Photon and Neutron Skeletal Dosimetry through NMR Microscopy* (DOE NEER Grant DE-FG07-99ID13764) US DOE, Nuclear Engineering Education Research (NEER) Program, \$452,927, **Principal Investigator**, 10% FTE, July 1, 1999 to June 30, 2002, 2 Students.
28. *Risk Assessment of Airborne Particulates to Workers in the Phosphate Industry* (FIPR #00-05-062R), Florida Institute for Phosphate Research, \$99,530 (total), \$94,790 (direct), Wesley E. Bolch, **Principal Investigator**, W. Emmett Bolch, Co-Principal Investigator, 15% FTE, September 15, 2001 – August..... 31, 2003, Peer Review, 1 student.
29. *A Probabilistic Dosimetry Model for Radionuclide DCF* (R32/CCR416743), Centers for Disease Control and Prevention, \$375,672 (total), \$259,084 (direct), W. Emmett Bolch – Principal Investigator, Wesley E. Bolch - **Co-Principal Investigator**, 15% FTE, August 1, 1999 to July 31, 2003, Peer Review, 3 Students.
30. *Monte Carlo Simulations of Radiation Damage to DNA: Impact of Variations in the Molecular Microenvironment*, The Whitaker Foundation, \$27,582 (subcontract), \$233,221 (total award), David T. Marshall, Principal Investigator, Wesley E. Bolch, **Co-Principal Investigator**, 9% FTE, May 1, 2001 – April 30, 2003, Peer Review.
31. *Tomographic Dosimetry Phantoms for Pediatric Radiology*, (R01 HD38932-01/02) National Institute for Child and Health Development (NICHD), (R01 EB00267-03) National Institute of Biomedical Imaging and Bioengineering (NIBIB), Bioengineering Research Grant, \$663,702 (total), \$472,500 (direct), **Principal Investigator**, 18% FTE, May 1, 2000 to April 30, 2004, Peer Review, 4 students.
32. *An Image-Based Computational System for the Design of Radionuclide Therapies of Skeletal Tumors*, (DE-FG07-02ID14327) US DOE, Nuclear Engineering Education Research (NEER) Program, \$345,050 (total), \$246,546 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, July 1, 2002 – June 31, 2005, Peer Review, 2 students (**UF Project 28423**)
33. *Assessment of Airborne Particulate Lung Solubility and Internal Dose to Phosphate Workers* (FIPR #03-05-064), Florida Institute for Phosphate Research, \$92,331 (total), \$87,934 (direct), Wesley E. Bolch, **Principal Investigator**, C.Y. Wu, Co-Principal Investigator, 10% FTE, October 1, 2003 – December 31, 2005, Peer Review, 1 student (**UF Project 28442**)
34. *Pediatric Organ and Effective Doses for Siemens CT Systems*, Siemens Medical Division, April 2004 (1 Year), \$60,000 (total), Manuel Arreola, PI, Wesley E. Bolch, **Co-Investigator**, September 1, 2004 – December 31, 2005, Internal Review, 1 student.
35. *Techniques for Skeletal dosimetry in Radionuclide Therapy via Assessment of Patient-Specific Total and Regional Spongiosa Volumes* (F31 CA97522), National Cancer Institute, Pre-Doctoral Fellowship for Minorities, \$113,304 (total / direct), Wesley E. Bolch, **Principal Investigator and Supervisor**, James Brindle, **Graduate Student**, August 9, 2002 – August 8, 2006, Peer Review, 1 student (**UF Project 28426**)
36. *Measurement-to-Activity Conversion Coefficients for Medical Emergency Response* (#ACDC-S-01), Sanford Cohen & Associates, Inc., \$117,683 (total), \$87,186 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, September 1, 2004 – September 1, 2006, Peer Review, 2 students (**UF Project 53240**)

37. *Spatial Mapping of the Hematopoietic Stem Cells in Human Bone Marrow* (R01 CA96441), National Cancer Institute, Post-Doctoral Fellowship for Handicapped Individuals, \$138,164 (total), \$94,958 (direct), Wesley E. Bolch, **Principal Investigator and Supervisor**, Vince Bourke, PhD, **Post-Doctoral Research Associate**, February 1, 2005 to January 31, 2007, Peer Review, 1 student (**UF Project 56572**)
38. *Advances in Skeletal Dosimetry Through Microimaging*, (R01 CA96441), National Cancer Institute, \$1,418,286 (total), \$1,133,317 (direct), Wesley E. Bolch, **Principal Investigator**, 27% FTE, February 1, 2003 – January 31, 2008, Peer Review, 3 students (**UF Project 28432**)
39. *Voxel Phantoms for Evaluation of Rapid Screening Methods of Contaminated Persons* (TKC 30-06 16601 CDC Task 29), TKC Integration Services, LLC, \$150,000 (total), \$115,206 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, December 1, 2006 – November 30, 2007, CDC Review, 2 Students (**UF Project 64919**)
40. *Physical Voxel Phantoms Simulating Radioactively Contaminated Persons* (TKC 30-07 185-01 CDC Task 81), TKC Integration Services, LLC, \$150,000 (total), \$106,642 (direct), Wesley E. Bolch, **Co-Principal Investigator**, David E. Hintenlang, **Co-Principal Investigator**, 14% FTE, September 1, 2007 – August 31, 2008, CDC Review, 2 Students (**UF Project 69714**)
41. *Virtual Patients for Computing Radiation Dose* (R01 CA116743), National Cancer Institute, \$326,291 (total), \$240,252 (direct), Wesley E. Bolch, **Principal Investigator – RPI Subcontract to UF**, 10% FTE, September 1, 2005 to December 31, 2008, Peer Review, 2 students (**UF Project 52293**)
42. *MicroCT-Based Skeletal Models for Use in Tomographic Voxel Phantoms for Radiological Protection*, (DE-FG07-06ID14773) US DOE, Nuclear Engineering Education Research (NEER) Program, \$198,104 (total) \$140,275 (direct), Wesley E. Bolch, **Principal Investigator**, 10% FTE, May 1, 2007 – December 31, 2009, Peer Review, 1 student (**UF Project 58656**)
43. *Skeletal Dosimetry Models for the Techa River Cohorts*, (FI6R-516478), European Union, \$108,969 (total), \$74,381 (direct), Wesley E. Bolch, **Principal Investigator**, 5% FTE, January 1, 2008 – December 31, 2009, Peer Review, 2 students (**UF Project 71553**)
44. *Software for First Responders, First Receivers, and Mortuary Staff* (TKC-2008-PW10), TKC Integration Services, LLC, \$50,000 (total), \$34,130 (direct), Wesley E. Bolch, **Principal Investigator**, 5% FTE, September 8, 2008 – September 7, 2009, CDC Review, 1 Post-Doc at 30% FTE. (**UF Project 76685**)
45. *Evaluation of Radiation Instrumentation for Rapid Screening of Internal Contamination Following a Radiological Event* (TKC-2008-PW7), TKC Integration Services, LLC, \$105,000 (total), \$73,910 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, September 8, 2008 – September 7, 2009, CDC Review, 1 Student. (**UF Project 76696**)
46. *Lung and Systemic Retention of Nanoparticles Following Inhalation and Wound Exposures*, (FA8651-08-1-0001), Air Force Research Laboratory, \$167,830 (total), \$119,682 (direct), Wesley E. Bolch, **Principal Investigator**, 10% FTE, January 1, 2008 – June 30, 2010, Peer Review, 1 student (**UF Project 72586**)
47. *Material Dissolution of Metals in Simulated Lung & Phagolysosomal Fluids*, (FA8651-08-1-0008), Air Force Research Laboratory, \$75,000 (total), \$53,416 (direct), Wesley E. Bolch, **Principal Investigator**, 6% FTE, March 31, 2008 – March 30, 2009, Peer Review, 1 student (**UF Project 72916**)
48. *Nuclear Education Fellowship Program*, (Grant), U.S. Nuclear Regulatory Commission, \$400,000 (total), \$370,370 (direct), Wesley E. Bolch, **Academic Co-Sponsor**, 0% FTE, September 1, 2008 – August 31, 2012, Peer Review, 12 Fellows. (**UF Project 73580**)
49. *Age-Dependent Organ Doses from Pediatric CT Imaging* (HHS-N2612-0090-0098P), National Cancer Institute, Radiation Epidemiology Branch, \$97,000 (total), \$68,450 (direct), Wesley E. Bolch, **Principal Investigator**, 5% FTE, March 10, 2009 – June 9, 2010, NCI Review, 2 Students. (**UF Project 77829**)
50. *NASA Astronaut Dosimetry: Implementation of Scalable Human Phantoms and Benchmark Comparisons of Deterministic versus Monte Carlo Radiation Transport* (NNX09AK14H), Graduate Student Research Program, National Aeronautics and Space Administration (NASA), \$90,000 (direct), Wesley E. Bolch, **Principal Investigator and Research Advisor**, August 15, 2009 – August 14, 2010, Peer Review, 1 Student (*Note – student was hired by NASA prior to Year 2 and 3 funding – continuing PhD research as NASA employee*). (**UF Project 79109**)
51. *NURBS-Based Head and Eye Dosimetry Models for AMD Radiotherapy* (ORAYA-001-2007), Oraya Therapeutics, Inc., \$184,057 (total), \$134,772 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, November 1, 2007 – October 30, 2010, Peer Review, 1 student (**UF Project 70899**)

52. *Software to Incorporate Portable Instrumentation Data for Triage of Individuals Internally Contaminated with Gamma-Emitting Radionuclides* (CDC-UF-Task 134 11-09-2009), TKC Global Solutions, LLC, \$124,734 (total), \$90,290 (direct), Wesley E. Bolch, **Principal Investigator**, 10% FTE, November 1, 2009 – October 31, 2010, CDC Review, 2 Students. **(UF Project 84109)**
53. *Material Dissolution of Metals in Simulated Lung & Phagolysosomal Fluids*, (FA8651-10-1-0005), Air Force Research Laboratory, \$40,000 (total), \$28,376 (direct), Wesley E. Bolch, **Principal Investigator**, 20% FTE, April 19, 2010 – December 31, 2010, Peer Review, 1 student **(UF Project 87921)**
54. *Bone-Specific Assessment of Marrow Cellularity via H-NMR Spectroscopy* (F31 CA134200), National Cancer Institute, National Research Service Award (NRSA), \$120,000 (direct), Wesley E. Bolch, **Principal Investigator and Research Advisor**, Carlos Pichardo, **Graduate Student**, September 29, 2008 – December 31, 2010, Peer Review, 1 Student. **(UF Project 90522)**
55. *Effects of Nonuniform Distributions of Radioactivity: MicroCT-Based Models for Cellular Dosimetry*, (R01 CA083838) National Cancer Institute, \$100,000 (total), \$72,000 (direct) Wesley E. Bolch, **Principal Investigator – UMNDJ Subcontract to UF**, 5% FTE, July 10, 2006 – June 30, 2011, Peer Review, no students **(UF Project 58554)**
56. *Secondary Cancer Risk Assessment in Pediatric Oncology Patients* (C06 CA059267), Massachusetts General Hospital, \$201,475 (total), \$148,146 (direct), Wesley E. Bolch, **Principal Investigator**, 20% FTE, October 1, 2008 – September 30, 2011. **(UF Project 78874)**
57. *Uncertainties in the age-dependent organ doses from pediatric CT imaging* (HHS-N2612-0100-0692P), National Cancer Institute, Radiation Epidemiology Branch, \$82,567 (total), \$60,430 (direct), Wesley E. Bolch, **Principal Investigator**, 10% FTE, September 15, 2010 – September 14, 2011, NCI Review, 1 Student. **(UF Project 91489)**
58. *Updating the Gamma Emitter Contamination Assessment Tool (GECAT)* (DE-AC05-06OR23100), Oak Ridge Associated Universities, \$99,306 (total), \$72,867 (direct), Wesley E. Bolch, **Principal Investigator**, 6% FTE, December 1, 2010 – September 30, 2011, CDC Review, 1 Student. **(UF Project 92098)**
59. *A 3D Canine Phantom for Applications in Skeletal Molecular Radiotherapy*, (F31 CA130165), National Cancer Institute, National Research Service Award (NRSA), \$153,360 (direct), Wesley E. Bolch, **Principal Investigator and Research Advisor**, Laura Padilla, **Graduate Student**, August 15, 2007 – August 14, 2012, Peer Review, 1 Student **(UF Project 67682)**
60. *Uncertainties in the age-dependent organ doses from pediatric CT imaging* (HHS-N2612-0110-0510P), National Cancer Institute, Radiation Epidemiology Branch, \$82,262 (total), \$62,146 (direct), Wesley E. Bolch, **Principal Investigator**, 6% FTE, September 27, 2011 – September 26, 2012, NCI Review, 1 Student. **(UF Project 97047)**
61. *VirtualDose™ Software for Diagnostic CT Doses to Adults and Children* (R42 EB010404), National Institute for Biomedical Imaging and Bioengineering (NIBIB), \$270,547 (total), \$205,000 (direct), Wesley E. Bolch, **Principal Investigator – RPI Subaward to UF**, 5% FTE, July 1, 2010 – June 30, 2013, Peer Review, 1 Student **(UF Project 80227)**
62. *Preclinical Development of Polymer-Mediated Radionuclide Therapies in a Canine Model for Targeting Metastatic Cancer*, University of Florida – Division of Sponsored Research, \$85,000 (direct), Wesley E. Bolch, **Principal Investigator**, 10% FTE, July 1, 2010 – June 30, 2012, Internal UF Review, 1 Student. **(UF Project 88271)**
63. *Database of CT Imaging Organ Doses for Rapid and Electronic Medical Recording*, Biomedical Education and Research Foundation, \$50,000 (direct), Wesley E. Bolch, **Principal Investigator**, 6% FTE, May 1, 2011 – April 30, 2013, Foundation Review, 2 Students. **(UF Project 94768)**
64. *Real-Time Dosimetry for AMD Stereotactic Radiotherapy*, (Oraya-002-2010) Oraya Therapeutics, Inc., \$248,953 (total), \$184,233 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, August 1, 2010 – July 31, 2013, Internal Company Review, 1 Student. **(UF Project 89751)**
65. *nanolMBA™ - A Computational Tool for Nanoparticle Inhalation Toxicity Assessment and Bioassay* (FA8651-12-M-0287), Air Force Research Laboratory, \$56,813 (direct), \$80,000 (total), Wesley E. Bolch, **Principal Investigator**, May 1, 2012 – November 30, 2013, Peer Review, 1 student **(UF Project 100477)**
66. *Fetal and Pregnant Female Dosimetry Models for the Techa River Cohorts*, (FP7- 249675) European Union, \$205,600 (total), \$130,400 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, March 1, 2010 – February 28, 2014, Peer Review, 1 Student. **(UF Project 80521)**

67. *Targeting Osteosarcoma with Polymer-Mediated Radiopharmaceuticals*, Hyundai Corporation – Hope on Wheels, \$250,000 (direct), Wesley E. Bolch, **Principal Investigator**, September 1, 2012 – December 31, 2014, Peer Review, 3 students ([UF Project 103502](#))
68. *Dose Coefficients for Radionuclide Exposures to the Pregnant Female and Embryo/Fetus*, US Environmental Protection Agency, Subaward through Oak Ridge National Laboratory, \$182,897, Wesley E. Bolch, **Principal Investigator**, March 15, 2014 – March 15, 2015, Internal Review, 1 Student and 1 Postdoc ([UF Project 111888](#))
69. *Monte Carlo Assessment of Organ Dose Associated with Backscatter Advanced Imaging Technologies*, (NAS Contract #2000004432) National Academies of Science, National Materials and Manufacturing Board, \$52,178, Wesley E. Bolch, **Principal Investigator**, April 1, 2014 – November 6, 2014, Peer Review, 2 Students and 1 Postdoc ([UF Project 114631](#))
70. *Auto-Scaling of UF Hybrid Adult Phantoms to Astronaut Morphometry*, National Aeronautics and Space Administration, Wyle Laboratories, \$95,533 (direct), \$134,222 (total), Wesley E. Bolch, **Principal Investigator**, March 1, 2014 – September 30, 2015, Internal Review, 1 Student ([UF Project 114115](#))
71. *Dosimetry for Techa River - Hybrid Phantom Based Internal and External Dose Coefficients*, (Grant No. 198997) Pacific Northwest National Laboratory, US Department of Energy, \$220,534 (direct), \$300,000 (total), Wesley E. Bolch, **Principal Investigator**, January 1, 2013 – September 30, 2015, Peer Review, 1 student ([UF Project 112776](#))
72. *Specific Absorbed Fractions for Internal Radionuclide Exposures of Infants, Children, and Adolescents*, (DE-AC05-000A22725) US Environmental Protection Agency, Subaward through Oak Ridge National Laboratory, \$86,068 (direct), \$117,169 (total), Wesley E. Bolch, **Principal Investigator**, March 15, 2015 – September 30, 2015, Internal Review, 1 Student and 1 Postdoc ([UF Project 111888](#))
73. *In-Clinic Assessment of Organ Doses for Interventional Fluoroscopic Procedures* (F31 CA159464), National Cancer Institute, National Research Service Award (NRSA), \$175,367, Wesley E. Bolch, **Principal Investigator and Research Advisor**, David Borrego, **Graduate Student**, December 1, 2010 – November 30, 2015, Peer Review, 1 Student ([UF Project 120724](#))
74. *Dose Reduction in Pediatric Molecular Imaging - NURBS Phantoms and Organ Dosimetry*, (R01 EB013558), National Institute for Biomedical Imaging and Bioengineering (NIBIB), \$277,948 (direct), \$381,444 (total), Wesley E. Bolch, **Principal Investigator – JHMI Subaward to UF**, March 1, 2012 – February 28, 2016, Peer Review, 1 Student ([UF Project 96898](#))
75. *Development and Inclusion of the UF Anatomic Phantoms into the DAG-MC Framework for Space Radiation Dosimetry*, National Aeronautics and Space Administration, Wyle Laboratories, \$66,111 (direct), \$89,517 (total), Wesley E. Bolch, **Principal Investigator**, January 1, 2016 – September 30, 2016, Internal Review, 2 Students ([UF Project 126061](#))
76. *Modeling Targeted Alpha Particle Therapy of Cancer: Image-Based Models of Bone and Kidney*, (R01 CA157542), National Cancer Institute, \$246,833 (direct), \$334,260 (total), Wesley E. Bolch, **Principal Investigator – JHMI Subaward to UF**, May 1, 2012 – April 30, 2017, Peer Review, 1 Student ([UF Project 95630](#))
77. *Dose Coefficients for Radionuclide Exposures to the Pregnant Female and Embryo/Fetus*, (DE-AC05-000A22725) US Environmental Protection Agency, Subaward through Oak Ridge National Laboratory, \$108,185 (direct), \$150,000 (total), Wesley E. Bolch, **Principal Investigator**, January 1, 2017 – December 31, 2017, Internal Review, 2 Students ([UF Project P0031624](#))
78. *Ultra-Lightweight Multifunctional Magnesium Alloy Shielding Structures* (NNX17CL68P), National Aeronautics and Space Administration (NASA), SBIR Phase I, \$10,426 (total BME subaward from MSE), Wesley E. Bolch, **Co-Principal Investigator – UF Subaward from Innovative Space Technologies, Inc.**, June 9, 2017 to December 8, 2017, Peer Review, 1 Student ([UF Project P0054195](#))
79. *Non-Reference Computational Phantoms Applied to an Expanded Library of External Dose Coefficients – Movement Toward Individualized Radiation Risk*, Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD), Paris, France, \$44,069 (direct), \$58,927 (total), Wesley E. Bolch, **Principal Investigator**, September 15, 2017 to November 30, 2018, Internal Review, 1 Student ([UF Project P0078985](#))

80. *Precision Dose: Personalized Radiation Dose Optimization for Multimodal Imaging*, University of Florida Clinical and Translational Science Institute (CTSI), \$28,360 (total), Wesley E. Bolch, **Co-Principal Investigator**, July 1, 2018 – June 30, 2019, Internal Review, 1 Student (**Project P0087381**)
81. *Computational and Experimental Microdosimetry in the Proton Treatment of Cancer*, University of Florida Proton Therapy Institute (UFPTI), \$58,650 (total), Wesley E. Bolch, **Principal Investigator**, May 15, 2018 – May 14, 2019, Internal Review, 1 Student (**UF Foundation Project**).
82. *Pregnant Female Phantoms for Organ Dosimetry of the RERF Life Span Study*, Radiation Effects Research Foundation, Hiroshima, Japan, Wesley E. Bolch, **Principal Investigator**, \$207,912 (direct), \$317,066 (total), March 1, 2018 – February 28, 2020, Internal Review, 2 Students (**UF Project P0121418**)
83. *Microscale Tissue Models for Alpha Particle Dosimetry*, (R43 CA224643) National Cancer Institute, \$55,271 (direct), \$84,289 (total), Wesley E. Bolch, **Principal Investigator – Rapid Dosimetry, LLC Subaward to UF**, April 1, 2018 – March 31, 2020, Peer Review, 1 Student (**Project P0084851**)
84. *Implementation of the J45 Phantoms for RERF Survivor Organ Dosimetry*, Radiation Effects Research Foundation, Hiroshima, Japan, Wesley E. Bolch, **Principal Investigator**, \$69,035 (direct), \$95,933 (total), May 1, 2019 – April 30, 2021, Internal Review, 1 Student (**UF Project P0164593**)

Summary of Cumulative External Grant Funding - 1995 to Present

| <i>Role</i> | <i>Total</i> | <i>Direct Costs</i> | <i>Indirect Costs</i> |
|---------------------------|---------------------|---------------------|-----------------------|
| Principal Investigator | \$9,175,041 | \$6,831,296 | \$2,343,745 |
| Co-Principal Investigator | \$707,805 | \$503,131 | \$204,674 |
| Investigator | \$60,000 | \$40,956 | \$19,044 |
| Academic Sponsor | \$1,190,195 | \$1,117,359 | \$72,836 |
| Totals | \$11,133,041 | \$8,492,741 | \$2,640,300 |

Summary of Cumulative Internal Grant Funding - 1995 to Present

| <i>Role</i> | <i>Total</i> | <i>Direct Costs</i> | <i>Indirect Costs</i> |
|---------------------------|------------------|---------------------|-----------------------|
| Principal Investigator | \$262,478 | \$262,478 | \$0 |
| Co-Principal Investigator | \$82,864 | \$82,864 | \$0 |
| Investigator | \$20,771 | \$20,771 | \$0 |
| Academic Sponsor | \$0 | \$0 | \$0 |
| Totals | \$366,113 | \$366,113 | \$0 |

INTERNATIONAL ACTIVITIES

International Research / Professional Meetings Attended or Chaired

- **April 4-8, 2003**, Attended the 2003 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Annapolis, Maryland, USA.
- **March 21-27, 2004**, Attended the 2004 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Berchtesgaden, Germany.
- **April 4-8, 2005**, Attended the 2005 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Unicoi State Park, Georgia, USA.
- **March 27-31, 2006**, Chaired the 2006 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Chilton, UK.
- **October 2-5, 2006**, Presented invited talks and chaired sessions at the 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France.
- **October 7-11, 2006**, Attended the 2006 Meeting of Committee 2 of the International Commission on Radiological Protection in Cassis, France.
- **April 30 – May 4, 2007**, Organized and chaired the 2007 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Sanibel Island, Florida, USA.
- **October 21-25, 2007**, Attended the 2007 Meeting of Committee 2 of the International Commission on Radiological Protection in Berlin, Germany.
- **March 8-12, 2008**, Attended a meeting of the Subgroup on External Dosimetry of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Munich, Germany.
- **May 5-9, 2008**, Chaired the 2008 Meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Vienna, Austria
- **May 12, 2008**, Participated as a Foreign Member of the PhD dissertation committee of Mr. Arnaud Dieudonne, at the University of Rouen in Rouen, France.
- **August 24-28, 2008**, Attended the 2008 Meeting of Committee 2 of the International Commission on Radiological Protection in St. Petersburg, Russia
- **October 11-14, 2008**, Presented two podium presentations at the 2008 Annual Meeting of the European Association for Nuclear Medicine (EANM) in Munich, Germany.
- **December 14-17, 2008**, Attended a meeting of the Subgroup on External Dosimetry of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Munich, Germany.
- **March 25-27, 2009**, Invited reviewer of the Nuclear Safety Research Program at the Helmholtz Association national laboratories at Karlsruhe and Julich, Germany.
- **April 20-24, 2009**, Chaired a meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Ottawa, Canada.
- **May 4-6, 2009**, Invited presentation at the NCI Conference on the Late Health Effects of Ionizing Radiation, Washington, DC.
- **June 13-17, 2009**, Invited presentations at the 3rd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry, Toronto, Canada.
- **November 7-13, 2009**, Attended the 2009 Meeting of Committee 2 of the International Commission on Radiological Protection in Porto, Portugal.
- **December 8-11, 2009**, Invited presentation at the Final Project Meeting of the European Union SOUL Project in Munich, Germany (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs).
- **April 26-30, 2010**, Invited presentation at the Kickoff Project Meeting of the European Union SOLO Project in Oxford, UK (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs).

- **May 13, 2010**, Invited lecture at the Department of Nuclear Engineering, Kyung Hee University, Seoul, Korea.
- **May 14, 2010**, Invited lecture at the Department of Nuclear Engineering, National Seoul University, Seoul, Korea.
- **May 17-21, 2010**, Chaired a meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Nara, Japan.
- **September 13-14, 2010**, Attended a meeting of the Subgroup on External Dosimetry of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Munich, Germany.
- **October 11-15, 2010**, Attended the 2010 Meeting of Committee 2 of the International Commission on Radiological Protection in Gatlinburg, Tennessee.
- **November 9-12, 2010**, Invited presentation at the Symposium on Standards, Applications, and Quality Assurance in Medical Radiation Dosimetry, International Atomic Energy Agency (IAEA), Vienna, Austria. Additional duties included chairing one session and lecturing in a short course.
- **March 14-17, 2011**, Chair meetings of Work Package 4.3 of the European Union SOLO Project (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs), International Agency for Research in Cancer (IARC), Lyon, France
- **April 9, 2011**, Invited Plenary Speaker, 14th Congresso Federazione Nazionale, Collegi Professionali Tecnici di Radiologica Medica, Palazzo dei Congressi, Riccione, Italy.
- **April 12-15, 2011**, Chaired a meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Fontenay-aux-Roses, France.
- **August 8-9, 2011**, Session Chair for 3rd International Workshop on Computational Phantoms, Beijing, China, August 8-9, 2011
- **September 9, 2011**, Examiner, PhD Dissertation Defense, Ms. Lama Hadid, Université de Paris, Paris, France, September 9, 2011.
- **September 26-28, 2011**, Invited Consultant on Medical Internal Dosimetry, International Atomic Energy Agency, Vienna, Austria, September 26-28, 2011.
- **October 11-13, 2011**, Invited Lecturer, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Fontenay-aux-Roses, France
- **October 22-28, 2011**, Attended the 2011 Meeting of Committee 2 of the International Commission on Radiological Protection in Bethesda, MD.
- **March 26-29, 2012**, Chair meetings of Work Package 4.3 of the European Union SOLO Project (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs), Istituto Superiore di Sanità (ISS), Rome, Italy.
- **April 30 – May 4, 2012**, Chaired a meeting of the Task Group on Dose Calculations (DOCAL) under Committee 2 of the International Commission on Radiological Protection (ICRP) in Atlanta, GA.
- **September 10-14, 2012**, Attended the 2012 Annual Meeting of Committee 2 of the International Commission on Radiological Protection in Rio de Janeiro, Brazil.
- **October 15-19, 2012**, Invited Lecturer to the 8th International Symposium on Solid State Dosimetry (ISSSD), National Institute of Nuclear Research in Mexico City, Mexico.
- **October 22-25, 2012**, Invited attendee to the 9th International US-Russian Joint Coordinating Committee for Radiation Effects Research (JCCRER) in San Francisco, CA.
- **November 21, 2012**, Served as rapporteur during the oral defense of Dr. Eric Blanchardon's L'Habilitation a Diriger des Recherches degree at the University of Paris – Orsay.
- **March 4-6, 2013**, Chair meetings of Work Package 4.3 of the European Union SOLO Project (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs), European Union Headquarters, Brussels, Belgium.
- **April 1-5, 2013**, Meeting of Project 1.1 – Techa River Population Dosimetry, DOE Project under US-Russian Joint Coordinating Committee for Radiation Effects Research, Urals Center for Radiation Medicine (URCRM), Chelyabinsk, Russia.
- **October 21-27, 2013**, Attended the 2013 Meeting of Committee 2 of the International Commission on Radiological Protection in Abu Dhabi, United Arab Emirates.

- **February 21-23, 2014**, Invited Presentation – *The Science of Estimating Individual Risk* – presented at The International Workshop on Radiation and Thyroid Cancer, Organized by the Japanese Ministry of the Environment, Fukushima Medical University, and the OECD Nuclear Energy Agency, Tokyo, Japan.
- **March 10-13, 2014**, Chair meetings of Work Package 4.3 of the European Union SOLO Project (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs), International Agency for Research in Cancer (IARC), Munich, Germany.
- **May 13-15, 2014**, Invited Lecturer, EURADOS School on Voxel Phantom Development and Implementation for Radiation Physics Calculations, Helmholtz Zentrum München, Neuherberg, Germany.
- **May 21-23, 2014**, Invited Attendee and Presenter at the Committee on Radiation Protection and Public Health (CRPPH), Organization for Economic Cooperation and Development (OECD), Nuclear Engineering Agency (NEA), Paris, France.
- **September 9-12, 2014**, Attended the 2014 Meeting of Committee 2 of the International Commission on Radiological Protection in Nashville, TN.
- **October 7-8, 2014**, Invited Research Proposal Presentation – *Non-Reference Computational Phantoms Applied to an Expanded Library of Extern Dose Coefficients* – Organization for Economic Cooperation and Development (OECD), Nuclear Engineering Agency (NEA), Paris, France.
- **February 16-19, 2015**, Chair meetings of Work Package 4.3 of the European Union SOLO Project (Cancer risk research in the populations of the Southern Urals Region of the former USSR nuclear weapons programs), International Agency for Research in Cancer (IARC), Oxford, UK.
- **June 1-5, 2015**, Attended the 2015 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Vienna, Austria.
- **October 19-25, 2015**, Attended the 2015 Meeting of Committee 2 of the International Commission on Radiological Protection, Seoul, Korea.
- **December 14-15, 2016**, Invited participant to the Joint US – Japan Organ Dose Working Group, Radiation Effects Research Foundation (RERF), Hiroshima, Japan.
- **February 15-17, 2016**, Chaired a meeting of the Task Group on Computational Phantoms and Radiation Transport of the International Commission on Radiological Protection (ICRP) in Tokyo, Japan.
- **June 27 to July 1, 2016**, Attended the 2016 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Vienna, Austria.
- **July 3-4, 2016**, Attended the 2015 Meeting of Task Group 101 on Radionuclide Therapy, International Commission on Radiological Protection, Malmo, Sweden.
- **September 21-25, 2016**, Attended the 2016 Meeting of Committee 2 of the International Commission on Radiological Protection, Oxford, UK.
- **November 21-25, 2016**, Attended and lectured at the Joint ICTP – IAEA Workshop on Internal Dosimetry, Trieste, Italy.
- **May 29 to June 2, 2017**, Attended the 2017 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Vienna, Austria.
- **July 24-29, 2017**, Attended collaborative meeting with colleagues at Hanyang University, Seoul, South Korea.
- **October 7-10, 2017**, Attended the 2017 Meeting of Task Group 101 on Radionuclide Therapy, International Commission on Radiological Protection, Fukushima Medical University, Japan.
- **October 9-15, 2017**, Attended the 2017 Meeting of Committee 2 of the International Commission on Radiological Protection, Paris, France.
- **November 29 to December 2, 2017**, Attended the 2017 Meeting of Task Groups 90 and 96, International Commission on Radiological Protection, Radiation Effects Research Foundation, Hiroshima, Japan, and University of Tokyo, Japan.
- **February 5-8, 2018**, Attended the 2018 Annual Meeting of the European Dosimetry Group (EURADOS), Lisbon, Portugal.
- **March 12-14, 2018**, Attended and lectured at the 2018 EURADOS Workshop on Computational Voxel

Phantoms, Munich, Germany.

- **June 11-14, 2018**, Attended the 2018 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Vienna, Austria.
- **August 20-22, 2018**, Attended a meeting of Report Committee 31 of the International Commission on Radiation Units and Measurements (ICRU), Reykjavik, Iceland.
- **September 17-20, 2018**, Attended the 2018 Meeting of Committee 2 of the International Commission on Radiological Protection, Beijing, China.
- **March 28-29, 2019**, Attended the 2019 Meeting of the Committee on Radiological Protection and Public Health (CRPPH), Nuclear Energy Agency (NEA), Organization for Economic Cooperation and Development (OECD), Paris, France.
- **June 10-14, 2019**, Attended the 2019 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Vienna, Austria.
- **July 22-24, 2019**, Attended the 2019 International Workshop on Human Computational Phantoms, Munich, Germany.
- **October 10-11, 2019**, Attended a meeting of ICRU Report Committee 31, Barcelona, Spain.
- **November 18-24, 2019**, Attended the 2019 Meeting of Committee 2 of the International Commission on Radiological Protection, Adelaide, Australia.
- **November 2-6, 2020**, Attended the 2020 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Virtual Meeting.
- **November 18-25, 2020**, Attended the 2020 Meeting of Committee 2 of the International Commission on Radiological Protection (Virtual).
- **May 10-14, 2021**, Attended the 2021 Meeting of Committee 2 of the International Commission on Radiological Protection (Virtual).
- **June 21-25, 2021**, Attended the 2021 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Virtual Meeting.
- **September 22-24, 2021**, Attended and lectured at the Joint ICTP – IAEA Workshop on Internal Dosimetry, (Virtual).

International Research Grants

- *Skeletal Dosimetry Models for the Techa River Cohorts*, (Contract), European Union, \$108,969 (total), \$74,381 (direct), Wesley E. Bolch, **Principal Investigator**, 5% FTE, November 1, 2007 – December 15, 2009, Peer Review, 2 students **(UF Project 71553)**
- *Fetal and Pregnant Female Dosimetry Models for the Techa River Cohorts*, (Contract) European Union, \$185,600 (total), \$130,400 (direct), Wesley E. Bolch, **Principal Investigator**, 15% FTE, March 1, 2010 – February 28, 2015, Peer Review, 1 Student. **(UF Project 80521)**
- *EPI-CT: International Pediatric CT Scan Study*. The EPI-CT study seeks to explore epidemiological links between pediatric radiation exposure during CT scanning and the occurrence of cancer. The project is coordinated by the International Agency for Research on Cancer (IARC), and financially supported from the Seventh Framework Program of the European Commission (FP7-Fission-2010-3.2.1). Results are expected in 2015. Wesley E. Bolch, **Consultant**
- *Dosimetry for Techa River - Hybrid Phantom Based Internal and External Dose Coefficients*. US-Russian Joint Coordinating Committee for Radiation Health Studies, \$148,000 (direct), \$200,000 (total), Wesley E. Bolch, **Principal Investigator**, January 1, 2013 – September 30, 2014, Peer Review, 1 student **(UF Project 112776)**
- *Non-Reference Computational Phantoms Applied to an Expanded Library of External Dose Coefficients – Movement Toward Individualized Radiation Risk*, Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD), Paris, France, \$44,069 (direct), \$58,927 (total), Wesley E. Bolch, **Principal Investigator**, September 15, 2017 to November 30, 2018, Internal Review, 1 Student **(UF Project P0078985)**

- *Pregnant Female Phantoms for Organ Dosimetry of the RERF Life Span Study*, Radiation Effects Research Foundation, Hiroshima, Japan, Wesley E. Bolch, **Principal Investigator** , \$107,148 (direct), \$152,093 (total), Internal Review, 2 Students (**UF Project P0075724**)

International Research Collaborations

- **University of Wuerzburg – Professor Michael Lassmann**
The Bolch ALRADS Laboratory is actively collaborating with Professor Michael Lassmann from the Department of Nuclear Medicine at the University of Wuerzburg in Germany. Current efforts are focused on preparing a European Union Research Council Starting Grant for post-doctoral research Dr. Johannes Tran-Gia in the area of bone marrow dosimetry in radiopharmaceutical therapy. In this collaborative research program, the ALRADS laboratory will provide microCT images from its reference adult male and reference adult female to develop a multi-parametric model of radionuclide S values – radiation dose to active bone marrow per radionuclide decay in multiple source regions of the skeleton. Furthermore, if funded, UF will host one of Dr. Tran-Gia’s PhD students in Gainesville for a one-year research internship.
- **Université de Paris – Professor Bertrand Tavitian**
Universidad Complutense de Madrid – Professor Jose Manuel Udias Moinelo
The Bolch ALRADS Laboratory is actively working with Professor Tavitian and Professor Moinelo on a collaborative effort to better understand blood vessel endothelial cell metabolism and function. We have recently submitted a three-year pre-application to the International Human Frontier Science Program (HFSP) for a project entitled *Super-Resolution Simultaneous Quantitative Imaging of Endothelial Cell Metabolism and Function*. In this project, we will use CFD simulations to design microfluidic systems in which we will grow EC-lined vessels, and explore simultaneously EC metabolism via a new high-resolution, high-sensitivity real-time positron emission imager, and vessel flow using ultrafast ultrasound Doppler imaging.

HONORS - Academic

Alpha Lambda Delta Freshman Honor Society (1979)
Phi Eta Sigma Freshman Honor Society (1979)
Tau Beta Pi Engineering Honor Society (1983)
Golden Key National Honor Society (1984)
Phi Kappa Phi National Honor Society (1984)
Epsilon Lambda Chi Engineering Leadership Honor Society (1984)
Sigma Xi National Research Honor Society (1990)

AWARDS - Professional

Smith & Gillespie Engineering Academic Scholarship, University of Florida (1983 - 1984)
Sigma Tau Senior Engineering Award, University of Florida (1984)
College of Engineering Service Award, University of Florida (1985)
Travel Award, Health Physics Society (1987)
Travel Award, Radiation Research Society (1987)
First Place Student Paper Competition, Health Physics Society (1987)
U. S. Department of Energy Health Physics Fellowship (1984 - 1988)
University of Florida Sigma Xi Graduate Student Research Award (1989)
Health Physics Faculty Research Award, U. S. Department of Energy (1992)
Elda E. Anderson Award, Health Physics Society (1993)
Health Physics Faculty Research Award, U. S. Department of Energy (1996)
Teaching Improvement Program (TIP) Award, University of Florida (1998)
Research Award, Department of Nuclear & Radiological Engineering, University of Florida (2003)
University of Florida Research Foundation Professor (2006 - 2009)
International Educator of the Year for the UF College of Engineering (2007)
Fellow, American Association of Physicists in Medicine (2012)
Fellow, Health Physics Society (2012)
Distinguished Scientific Achievement Award, Health Physics Society (2014)
University of Florida Term Professorship (2018 - 2021)
Fellow, American Institute for Biomedical Engineering (2020)
University of Florida Doctoral Dissertation Mentor/Advisor Award - College Level Award (2020)
University of Florida Doctoral Dissertation Mentor/Advisor Award - University Level Award (2020)
University of Florida Term Professorship (2021-2024)

AWARDS - Publications

Top 10 Articles for 2003 [*Phys Med Biol* **48** 805-820 (2003)]
Top 10 Articles for 2007 [*Phys Med Biol* **52** 3309-3333 (2007)]
Top 10 Articles for 2009 [*Phys Med Biol* **54** 3613-3629 (2009)]
Top 30 Articles for 2010 [*Phys Med Biol* **55** 1785-1814 (2010)]
Top 25 Articles for 2011 [*Phys Med Biol* **56** 3137-3161 (2011)]
2012 Robert's Prize - Best Paper for 2011 [*Phys Med Biol* **56**: 2309-2346 (2011)]

TEACHING

Graduate Courses – University of Florida

| Course | Title | Terms Taught |
|---------------------|--|---------------------------|
| BME 6535 | Radiation Physics, Measurement, and Dosimetry | Fall 2012 – Present |
| ENU 6623 | Patient Dosimetry in Medical Imaging and Therapy | Spring 2019 - Present |
| Past Courses | | |
| ENU 6623 | Radiation Dosimetry | Spring 1996 – Spring 2014 |
| ENU 5615L | Nuclear Radiation Detection with Laboratory | Fall 1995 – Fall 2003 |
| BME 5002 | Introduction to Biomedical Engineering II | Spring 1998 – Spring 2001 |
| BME 6400 | Instrumentation for Medical Image Acquisition | Fall 1999 – Fall 2002 |

Undergraduate Courses – University of Florida

| Course | Title | Terms Taught |
|---------------------|--|---------------------------|
| BME 4531 | Medical Imaging | Spring 2021 – Present |
| BME 4931 | Patient Dosimetry in Medical Imaging and Therapy | Spring 2019 - Present |
| Past Courses | | |
| ENU 4641 | Applied Radiation Protection | Spring 1995 – Spring 2014 |
| ENU 4630 | Radiation Shielding | Fall 2004 – Fall 2013 |
| ENU 4612L | Radiation Detection & Instrumentation with Lab | Fall 1995 – Fall 2003 |

SUPERVISION AND MENTORING

Listing by Name, Date, Current Position, and Project Title

- HP - denotes Health Physics Program
MP - denotes Medical Physics Program
BME - denotes Biomedical Engineering Program

Visiting Research Scholars

1. **Furuta, Takuya, PhD** (July 2016 – July 2017)

Current Position: Research Scientist, Division of Environment and Radiation Sciences, Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency (JAEA)

Research Responsibilities: Development human computational phantoms based upon tetrahedral mesh geometries and incorporate those models into the PHIT radiation transport simulation code. Apply the models to a variety of applications in radiological protection and medical physics exposure scenarios.

Post-Doctoral Research Associates

1. **Bouchet, Lionel, PhD** (January 1999 - December 1999)

Doctoral Program: University of Florida, Department of Nuclear and Radiological Engineering

Research Responsibilities: Development of skeletal bone dosimetry models and absorbed fraction data for both photons and electrons for use in nuclear medicine internal dosimetry

Initial Position: Assistant Professor, Department of Neurosurgery, University of Florida (1999 – 2002)

Present Position: Director of Research, Mevion, Inc., Boston, MA (2002 – present)

2. **Clairand, Isabelle, PhD** (April 1999 - April 2000)

Doctoral Program: Institute Gustave-Roussy, Villejuif Cedex, France

Research: Improved skeletal modeling in anthropomorphic computational models of internal dosimetry

Present Position: Research Assistant, Institute Gustave-Roussy, Villejuif Cedex, France

3. **Lee, Choonsik, PhD** (January 2005 – April 2009)

Doctoral Program: Department of Nuclear Engineering, Hanyang University, Korea

Research Responsibilities: Tomographic anatomic models for pediatric CT and radiation therapy

Present Position: Research Scientists, Radiation Epidemiology Branch, National Cancer Institute

4. Bourke, Vince, PhD (June 2005 – July 2007)

Doctoral Program: UT Southwest Medical Center at Dallas, Radiological Sciences.

Research Responsibilities: Spatial characterization of stem cells within human bone marrow for dosimetry applications to radionuclide therapy.

Initial Position: Medical Physics Resident, University of Arizona, Department of Radiation Oncology (August 2007 – Present).

Present Position: Therapy Medical Physicist, Department of Radiation Oncology, The Queen's Medical Center, Honolulu, Hawaii.

5. Maynard, Matthew, PhD (August 2013 – August 2015)

Doctoral Program: Medical Physics Graduate Program, University of Florida.

Research Responsibilities: Development of ICRP reference dose coefficients for both internal and external radiation exposures of the adult pregnant female as a function of gestational age.

Present Position: Medical Physics Resident, Willis-Knighton Cancer Center, Shreveport, LA.

Graduate Research Interns

1. Rajon, Didier, BS (May 1997 - November 1997)

BS Program: Ecole Nationale de Physique de Grenoble, Grenoble, France

2. Hussain, Mariwan, MS (September 2000 - May 2000)

MS Program: Engineering Physics at KTH (Royal Institute of Technology) Stockholm, Sweden

3. Becu, Stephane, BS (June 2002 – September 2002)

BS Program: Ecole Nationale de Physique de Grenoble, Grenoble, France

4. Combette, Agnes, BS (June 2002 – September 2002)

BS Program: Ecole Nationale de Physique de Grenoble, Grenoble, France

5. Dieudonné, Arnaud, PhD (May 2006 – December 2006)

PhD Program, University of Medicine and Pharmacology, Rouen, France

6. Falchook, Aaron, MD (Summer 2008)

MD Program, University of Florida, Medical Student Research Program

Undergraduate Research Advisees

1. Kielar, Kayla (University Scholars Program – Summer 2003)

Project – *Advanced techniques of bone marrow dosimetry*

2. Hasenauer, Deanna (High Honors Project – July 2004)

Project - *Spongiosa volume scaling in skeletal dosimetry*

3. Lindsay, Sinclair (University Scholars Program – Summer 2005)

Project – *Reference skeletal model of the adult male*

4. Hough, Matt (High Honors Project – November 2005)

Project – *Patient-specific radionuclide S values via skeletal spongiosa volume scaling*

5. Padilla, Laura (University Scholars Program – Summer 2006)

Project – *3D anatomical phantom of the adult dog for pre-clinical molecular radiotherapy*

6. Lodwick, Daniel (University Scholars Program – Summer 2006)

Project – High-resolution NURBS model of the newborn skeleton

7. Padilla, Laura (High Honors Project – November 2006)

Project – *3D anatomical phantom of the adult dog for pre-clinical molecular radiotherapy*

8. Lodwick, Daniel (High Honors Project – November 2006)

Project – *High-resolution NURBS model of the newborn skeleton*

9. Goede, Timothy (University Scholars Program – Summer 2007)

Project – *NURBS-based models of the gastrointestinal tract for improved radiation dosimetry*

10. Juneja, Badal (University Scholars Program – Summer 2008)

Project - *Guidance on the Use of Portal Survey Meters for Radiological Triage*

11. **Kaufman, Katie** (University Scholars Program – Summer 2008)
Project - *Virtual Phantoms for Radionuclide Therapy Treatment of Non-Hodgkin's Lymphoma*
 12. **Salazar, Jessica** (University Scholars Program – Summer 2008)
Project – *Hybrid Phantoms of the Adult Pregnant Female for Radiological Dose Assessment*
 13. **Sanchez-Monreal, Nelia** (University Scholars Program – Summer 2009)
Project - *Canine Anatomic Phantom for Preclinical Dosimetry in Internal Emitter Therapy*
 14. **Lambrou, Steven** (University Scholars Program – Summer 2009)
Project - *Guidance on the Use of Portal Survey Meters for Radiological Triage*
 15. **Ficarrotta, Kayla** (University Scholars Program – Summer 2010)
Project – *Skin dose reconstruction in fluoroscopically guided interventions*
 16. **Stepusin, Elliott** (University Scholars Program – Summer 2011)
Project – *Computer Simulation of Tube-Current Modulation for Dose Reduction in CT Imaging*
 17. **Sands, Michelle** (University Scholars Program – Summer 2011)
Project – *Pediatric Physical Phantoms for Dose Verification in CT Imaging*
 18. **Olguin, Edmond** (University Scholars Program – Summer 2012)
Project – *Determining tissue and bone buildup factors using MCNP for point-kernel calculations*
 19. **Tran, Trung** (University Scholars Program – Summer 2012)
Project – *Pediatric Patient-Phantom Matching for Organ Dosimetry in IFG Procedures*
 20. **Trinkle, Scott** (University Scholars Program – Summer 2014)
Project – *Tube Current Modulation Challenge Phantom for Computed Tomography Dosimetry*
 21. **El Basha, Daniel** (University Scholars Program – Academic Year 2016/2017)
Project – *Development of a Scalable and Deformable Eye Model for Radiation Dose Assessment*
 22. **Ewing, Macartney** (University Scholars Program – Academic Year 2017/2018)
Project – *A Proton Tissue-Equivalent Phantom of a 10-Year-Old for Dose Assessment in Proton Therapy*
 23. **President, Bonnie** (Nuclear Engineering – Academic Years 2016-2018)
Project – *S values for Alpha-Emitting Radionuclides in Cancer Therapy*
 24. **Radovanovic, Ivana** (Mechanical Engineering – Academic Years 2017-2018)
Project – *Construction of an Anthropomorphic Phantom of a 10-Year Child for Proton Therapy Dosimetry*
 25. **Xie, Austin** (Civil Engineering – Academic Year 2019-2020)
Project – *Use of CT imaging as an activity map for PET nuclear medicine imaging quantification*
 26. **Ewing, Macartney** (Mechanical Engineering – Academic Years 2018-2020) – University Scholar
Project – *Construction of a Tissue Equivalent Child Phantom for Proton Radiotherapy Dosimetry*
 27. **Starling, Andrew** (Environmental Engineering Sciences)
Project – *Occupational Dosimetry of Radiologists Performing Fluoroscopy-Guided Interventional Surgery*
 28. **Giraldo, Daniel** (Electrical Engineering – Summer 2021)
Project – *Microscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*
 29. **Zorrilla, Alexander** (Post-Bac / Pre-Med – Summer 2021)
Project – *Microscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*
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Current Students (PhD)

1. **Correa, Camilo** (Medical Physics), Graduate Research Assistant
Dissertation Topic – *Blood models for the ICRP reference adults in the liver, brain, and lungs*
 2. **Dinwiddie, Laura** (Biomedical Engineering)
Thesis Topic – *Construction of a mesh-based computational phantom library of adults and children*
 3. **Domal, Sean** (Medical Physics), Graduate Research Assistant
Dissertation Topic – *Expanded library of computational models of the adult pregnant female*
 4. **President, Bonnie** (Medical Physics), Graduate Research Assistant
Dissertation Topic – *Mesh-based 3D tissue models for alpha-emitter radiopharmaceutical therapy*
 5. **Wang, Yitian** (Biomedical Engineering)
Thesis Topic – *Construction of a mesh-based computational phantom library of adults and children*
-

Current Students (Master's)

1. **Baggett, Jared** (Medical Physics)
Thesis Topic – *Construction of a mesh-based computational phantom library of adults and children*
 2. **Bolden, Ronnie** (Medical Physics)
Thesis Topic – *Microscale tissue models for alpha-emitter radiopharmaceutical dosimetry*
 3. **Dawson, Robert** (Medical Physics)
Thesis Topic – *Construction of a mesh-based computational phantom library of adults and children*
 4. **Smither, Wyatt** (Medical Physics)
Thesis Topic – *TBD*
-

Current Students (Undergraduates)

1. **Colon-Ortiz, Carlos** (Biomedical Engineering – Fall 2020)
2. **Dozic, Abdul-Vehab** (Physics / Pre-MP – Fall 2020)
3. **Ellis, Lauren** (Biomedical Engineering / Physics – Summer 2021)
4. **Holland, Jerry** (Biomedical Engineering – Fall 2021)
5. **Nguyen Brian** (Biomedical Engineering – Fall 2021)
6. **Pathak, Shreya** (Yale University – Fall 2020)
7. **Sforza, Andrew** (Biomedical Engineering – Summer 2021)
8. **Wehmeier, Stefan** (Biomedical Engineering – Fall 2019)
9. **Withrow, Julie** (Biomedical Engineering – Fall 2019) – University Scholar

Alumni (PhD)

Texas A&M University

1. **How Mooi Lau, PhD** (Health Physics – August 1994)
Initial Position – Research Engineer, Nuclear Energy Unit, Puspati Complex, Selangor, Malaysia
Current Position – Same
Dissertation – Mechanisms of Radiation Damage to Poly(U)
2. **John W. Poston, Jr., PhD** (Health Physics – December 1994)
Initial Position – Senior Health Physicist, Idaho National Engineering Laboratory
Current Position – Medical Health Physicist, Houston, Texas
Dissertation – Improved Dosimetric Model of the Gastrointestinal Tract
3. **Eun-Hee Kim, PhD** (Health Physics – May 1995)
Initial Position – Staff Physicist, Korean National Cancer Hospital
Current Position – **Associate Professor**, Dept of Nuclear Engineering, Seoul National University
Dissertation – Microdosimetric Cellular-Dose Calculations for Beta Emitters in Radioimmunotherapy
4. **Carson A. Riland, PhD** (Health Physics – August 1995)
Initial Position – Health Physicists, Nevada Test Site
Current Position – same
Dissertation – Development of a TLD Dosimeter Based Upon Mixtures of TL Materials
5. **Kory A. Kodimer, PhD** (Health Physics – August 1995)
Initial Position – Researcher, Radiation Safety Engineering of Chandler, Arizona
Current Position – Radiation Safety Officer, Cardinal Health, Woodland Hills, California
Dissertation – Monte Carlo Calculations of Absorbed Fractions and S Values for Anthropomorphic Pediatric Phantoms
6. **Ian S. Hamilton, PhD** (Health Physics – August 1995)
Initial Position – Assistant Professor at Texas A&M University
Current Position – Medical Physicist, Baylor College of Medicine, Houston, TX
Dissertation – Design, Construction, Calibration, and Testing of a Novel Three-Dimensional Glow Curve Producing Thermoluminescent Dosimeter Reader

University of Florida

7. **Lionel Bouchet, PhD** (Health Physics – December 1998)
Initial Position – **Assistant Professor**, University of Florida, Department of Neurosurgery
Current Position – Director for Research, Mevion, Inc.
Dissertation – Development of Improved Methods for Internal Dosimetry Calculations
8. **Bongsoo Lee, PhD** (Health Physics – August 1999), Co-Chair with Dr. James Walker
Initial Position – Postdoctoral Research Associate, Nanoptics, Inc., Gainesville, Florida
Current Position – unknown
Dissertation – Development of a Novel Endoscopic Device
9. **Jokisch, Derek, PhD** (Health Physics – August 1999)
Initial Position – **Assistant Professor**, Dept. of Physics and Astronomy, Francis Marion University
Current Position – **Associate Professor**, Dept. of Physics and Astronomy, Francis Marion University
Dissertation – Beta Particle Dosimetry of the Trabecular Region of a Thoracic Vertebra Utilizing NMR Microscopy
10. **Mohr, Cecile, PhD** (Medical Physics – May 2000), Co-Chair with Dr. Steve Blackband
Initial Position – Sales Engineer, Siemens, Medical Engineering Division, Erlangen, Germany
Current Position – same
Dissertation – Neurological Applications of Quantitative Magnetic Resonance Imaging
11. **Wagner, Thomas, PhD** (Medical Physics – August 2000), Co-Chair with Dr. Frank Bova
Initial Position – Medical Physicist, US Oncology, Jacksonville, Florida
Current Position – **Assistant Professor**, MD Anderson Cancer Center, Orlando, FL
Dissertation – Optimal Delivery Techniques for Intracranial Stereotactic Radiosurgery:

12. **Patton, Phillip, PhD** (Health Physics – December 2000)
Initial Position – **Assistant Professor**, Department of Health Physics, UNLV
Current Position – **Associate Professor**, Department of Health Physics, UNLV
Dissertation – NMR Microscopy for Skeletal Dosimetry: Investigation of Marrow Cellularity on Dose Estimates
13. **Aydogan, Bulent, PhD** (Medical Physics – August 2001),
Initial Position – Medical Physicist, St. Peter’s Univ. Hospital, New Brunswick, NJ
Current Position – **Associate Professor**, Dept. of Radiation Oncology, University of Chicago
Dissertation – A Computational Atomistic Model of Radiation Damage to DNA
14. **Sehgal, Varun, PhD** (Biomedical Engineering – August 2001),
Initial Position – Resident in Therapy Physics, Mayo Clinic, Rochester, MN
Current Position – **Assistant Professor**, UCLA, Department of Radiation Oncology
Dissertation – Improved Dosimetry Techniques for Intravascular Brachytherapy
15. **Farfan, Eduardo, PhD** (Health Physics – August 2002),
Initial Position – **Assistant Professor**, South Carolina State University, Nuclear Engineering
Current Position – Research scientist, Oak Ridge National Laboratory
Dissertation – Probabilistic Respiratory Tract Dosimetry Model with Application to Beta-Particle and Photon Emitters
16. **Rajon, Didier, PhD** (Health Physics – December 2002),
Initial Position – Research Associate, Dept of Neurosurgery, UF
Current Position – same
Dissertation – Skeletal Dosimetry: A Hyperboloid Representation of the Bone-Marrow Interface to Reduce Voxel Effects in 3D Images of Trabecular Bone
17. **Huh, Chulhaeng, PhD** (Health Physics – August 2003)
Initial Position – Medical Physicist, Huff, Ferras & Associates, Inc.
Current Position – same
Dissertation – A probabilistic gastrointestinal tract dosimetry model
18. **Shah, Amish, PhD** (Biomedical Engineering – December 2004)
Initial Position – Resident in Therapy Physics, MD Anderson Cancer Center – Orlando, FL
Current Position – Staff Physicists, MD Anderson Cancer Center – Orlando, FL
Dissertation – Reference skeletal dosimetry model for an adult male radionuclide therapy patient based on 3D imaging and paired-image radiation transport.
19. **Padgett, Kyle, PhD** (Medical Physics – December 2005),(Co-Chair with Dr. Steve Blackband)
Initial Position – **Assistant Professor**, Miami School of Medicine, Department of Radiology
Current Position – same
Dissertation – Optimizing high-field T₁ and DT MR structural imaging
20. **Han, Eun-Young, PhD** (Medical Physics – August 2005),
Initial Position – Resident in Therapy Physics, University of Minnesota, Minneapolis, MN
Current Position – **Associate Professor**, Radiation Oncology, University of Arkansas Medical School
Dissertation – A revised series of stylized anthropometric models for internal and external radiation dose assessment.
21. **Watchman, Christopher, PhD** (Medical Physics – August 2005)
Initial Position – Research Associate, Radiation Oncology, University of Arizona, Tucson, AZ
Current Position – **Assistant Professor**, Radiation Oncology, University of Arizona, Tucson, AZ
Dissertation – *Skeletal dosimetry models for alpha-particles for use in molecular radiotherapy*
22. **Kim, Kwang-Pyo, PhD** (Health Physics – December 2005), (Health Physics – December 2005)
Initial Position – Research Fellow, Radiation Epidemiology Branch, National Cancer Institute
Current Position – **Assistant Professor**, Kyung Hee University, Department of Nuclear Engineering
Dissertation – Inhalation dose assessment to workers in the Florida phosphate industry
23. **Staton, Robert, PhD** (Medical Physics – December 2005)
Initial Position – Resident in Therapy Physics, MD Anderson Cancer Center – Orlando, FL
Current Position – Medical physicist, MD Anderson Cancer Center – Orlando, FL
Dissertation – Organ dose assessment in pediatric fluoroscopy and CT via a tomographic computational model of the newborn patient

24. **Brindle, James, PhD** (Medical Physics – May 2006)
Initial Position – Research Associate, Department of Radiation Oncology, Case Western Reserve University
Current Position – **Assistant Professor**, Case Western Reserve University
Dissertation – Techniques for skeletal dosimetry in radionuclide therapy via assessment of patient-specific total and regional spongiosa volumes
25. **Lee, Choonik, PhD** (Medical Physics – May 2006)
Initial Position – Research Associate, MD Anderson Cancer Center, Orlando, FL
Current Position – **Assistant Professor**, Radiation Oncology, University of Michigan Medical School
Dissertation – Development of voxel computational phantoms of pediatric patients and their application to organ dose assessment
26. **Kielar, Kayla PhD** (Health Physics – August 2009)
Initial Position – Resident in Therapeutic Radiological Physics, Stanford University
Current Position – **Assistant Professor**, Stanford University
Dissertation – Bone marrow dosimetry via microCT imaging and stem cell spatial mapping
27. **Pafundi, Deanna PhD** (Health Physics – August 2009)
Initial Position – Resident in Therapeutic Radiological Physics, Mayo Clinic, Rochester, MN
Current Position – **Assistant Professor**, Mayo Clinic
Dissertation – Image-based skeletal tissue and electron dosimetry models for the ICRP reference pediatric age series
28. **Hanlon, Justin, PhD** (Medical Physics – August 2010)
Initial Position – Research Engineer, Oraya Therapeutics, Inc., Newark, CA
Current Position – Research Engineer, Carl Zeiss Meditec, AG, Newark, CA
Dissertation – NURBS-based models of the head and eye for AMD radiotherapy
29. **Pichardo, Carlos, PhD** (Medical Physics – December 2010),
 NRSA Fellow – National Cancer Institute
Initial Position – Medical Physicist, Harrington Cancer Center, Amarillo, Texas
Current Position – 21st Century Oncology, Plantation, Florida
Dissertation– Adult patient-specific estimation of active bone marrow mass
30. **Johnson, Perry, PhD** (Medical Physics – August 2011)
Initial Position – Therapy Physics Resident, MD Anderson – Orlando, Florida
Current Position – **Associate Professor**, UF Proton Therapy Institute, Jacksonville, FL
Dissertation – Assessing patient dose in interventional fluoroscopy using patient-dependent hybrid phantoms.
31. **Padilla, Laura, PhD** (Medical Physics – August 2012), National Institutes of Health Fellow
Initial Position – Therapy Physics Resident, University of Chicago, Chicago, IL
Current Position – **Assistant Professor**, Department of Radiation Oncology, Virginia Commonwealth Univ.
Dissertation Topic - A 3D canine hybrid phantom and software for radionuclide therapy dosimetry
32. **Wayson, Michael, PhD** (Medical Physics – August 2012)
Initial Position – Diagnostic Physics Resident, University of Florida, Gainesville, FL
Current Position – Medical Physicist III, Baylor Scott & White Health, Dallas, TX
Dissertation Topic – Computational internal dosimetry methods as applied to the University of Florida series of hybrid phantoms
33. **Bahadori, Amir, PhD** (Medical Physics – December 2012)
Initial Position – Research Engineer, Johnson Space Center, NASA, Houston, TX
Current Position – **Assistant Professor**, Department of Nuclear Engineering, Kansas State University
Dissertation Topic – NASA Astronaut Dosimetry: Implementation of Scalable Human Phantoms and Benchmark Comparisons of Deterministic versus Monte Carlo Radiation Transport
34. **Maynard, Matthew, PhD** (Medical Physics – August 2013)
Initial Position – Postdoctoral Researcher, BME Department University of Florida, Gainesville, FL
Current Position – Medical Physicist, Willis-Knighton Cancer Center, Shreveport, LA
Dissertation - Hybrid computational phantoms of the developing fetus and pregnant female: Construction and application to select internal radiation dosimetry studies

35. **Cantley, Justin, PhD** (Medical Physics – August 2013)
Initial Position – Therapy Physics Resident, Case Western Reserve University, Cleveland, OH
Current Position – Medical Physicist, Northwest Medical Physics Center, Lynnwood, WA
Dissertation - Computational assessment of absorbed dose to tissues of the eye for ocular radiotherapy
36. **Long, Daniel, PhD** (Medical Physics – August 2013)
Initial Position – Diagnostic Physics Resident, Upstate Medical Physics, Victor, New York, NY
Current Position – Diagnostic Physicist, Memorial Sloan-Kettering Cancer Center, New York, NY
Dissertation – Monte Carlo calculations of patient organ dose in Toshiba computed tomography examinations with automated tube current modulation: A feasibility study
37. **Long, Nelia, PhD** (Medical Physics – December 2014)
Initial Position – Diagnostic Physics Resident, Upstate Medical Physics, Victor, New York
Current Position – Diagnostic Physicist/RSO, New York Weill Cornell Medical Center, New York, NY
Dissertation – Development of a computational adult brain model and applications to radiation dosimetry of brain structures during computed tomography examinations.
38. **Geyer, Amy, PhD** (Medical Physics – August 2015)
Initial Position - Therapy Physics Resident, Mayo Clinic, Phoenix, AZ
Current Position – Therapy Physicist, St. Luke's Mtn States Tumor Institute, Boise, ID
Dissertation – Modeling targeted alpha particle therapy of cancer: Image-based dosimetric models of bone and kidney.
39. **Borrego, David, PhD** (Medical Physics – August 2016), NIH National Research Service Award Fellow
Initial Position - Postdoctoral Researcher, Radiation Epidemiology Branch, National Cancer Institute
Current Position – Independent Research Scholar, NCI Radiation Epidemiology Branch, Bethesda, MD
Dissertation – In-clinic assessment of organ doses for fluoroscopically guided interventional procedures
40. **O'Reilly, Shannon, PhD** (Medical Physics – August 2016), Graduate School Fellow
Initial Position – Therapy Physics Resident, University of Pennsylvania Robert's Proton Therapy Center
Current Position – Medical Physicist, University of Pennsylvania Proton Therapy Center, Philadelphia, PA
Dissertation – Dosimetric analysis of patient populations at risk for iatrogenic malignant neoplasms in radiotherapy and diagnostic nuclear medicine
41. **Sands, Michelle, PhD** (Medical Physics – August 2016)
Initial Position – Therapy Physics Resident, Department of Radiation Oncology, Cleveland Clinic
Current Position – Medical Physicist, Advocate Health Care, Chicago, IL
Dissertation – Dosimetric and biokinetic models for the Labrador for use in preclinical studies of radionuclide therapy.
42. **Schwarz, Bryan, PhD** (Medical Physics – August 2016)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Florida
Current Position – **Assistant Professor**, Department of Radiology, University of Florida
Dissertation – Dosimetric modeling of skeletal and body tissues from internal and medical radionuclide sources.
43. **Stepusin, Elliott, PhD** (Medical Physics – August 2016), Graduate School Fellow
Initial Position – Software Engineer, Crowe Horwath LLP, Chicago, IL
Current Position – Independent Software Engineer, Chicago, IL
Dissertation – Precomputed Monte Carlo dosimetry and reporting for computed tomography
44. **Godwin, William, PhD** (Medical Physics – May 2017)
Initial Position – Therapy Physics Resident, Medical University of South Carolina, Charleston, SC
Current Position – Therapy Physics, Radiat Oncology, Medical University of South Carolina, Charleston, SC
Dissertation – Biokinetic models and internal dosimetry of the adult pregnant female and fetus
45. **Petroccia, Heather, PhD** (Medical Physics – May 2017)
Initial Position – Therapy Physics Resident, University of Pennsylvania Robert's Proton Therapy Center
Current Position – Therapy Physicist, UC Health Poudre Valley Hospital, Ft. Collins, CO
Dissertation – Reconstruction of organ doses of patients treated historically for Hodgkin's Lymphoma with cobalt teletherapy.

46. **Marshall, Emily, PhD** (Medical Physics – August 2017)
Initial Position – Diagnostic Physics Resident, Dept. of Radiology, University of Chicago, Chicago, IL
Current Position – **Assistant Professor**, Dept. of Radiology, University of Chicago, Chicago, IL
Dissertation– Monte Carlo organ dose calculations for pediatric patients undergoing fluoroscopy procedures.
47. **Olguin, Edmond, PhD** (Medical Physics – August 2018)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Florida
Current Position – Diagnostic Physicist, Beth Israel Deaconess Medical Center (BIDMC)
Dissertation – Pediatric dosimetry tools for diagnostic imaging and proton therapy applications
48. **Abadia, Andres** (Medical Physics – August 2019)
Initial Position – Postdoctoral Research Fellow, Dept. of Radiology, Medical University of South Carolina
Current Position – Project Engineer, Qaelum, Corp., Denver, Colorado.
Dissertation – Clinical applications of dual-source dual-energy computed tomography scanning
49. **Paulbeck, Colin** (Medical Physics – August 2019)
Initial Position – Diagnostic Physics Resident, Dept. of Radiology, Medical College of Wisconsin, Milwaukee
Current Position – **Assistant Professor**, Department of Radiology, Johns Hopkins University
Dissertation – Advances in organ and fetal dosimetry of pregnant survivors of the atomic bombings
50. **Brown, Justin** (Medical Physics – May 2020)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Florida
Current Position - Same
Dissertation – Advancements in the computation of patient organ dose in medical radiation exposures
51. **Kofler, Cameron** (Medical Physics – May 2021)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Chicago
Current Position - Same
Dissertation – The Development of a Newborn, Infant, and Toddler Mesh Phantom Library and a Pre-Computed Monte Carlo Dose Library for Computed Tomography
52. **Tran, Trung** (Medical Physics – May 2021)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Illinois
Current Position - Same
Dissertation – Pediatric Radiography Dosimetry for Radiation Epidemiology

Academic Faculty Positions – PhD Alumni

| Name | Position and University |
|----------------|--|
| Eun Hee Kim | Associate Professor, Dept of Nuclear Engineering, Seoul National University |
| Derek Jokisch | Professor, Dept of Physics and Astronomy, Francis Marion University |
| Phillip Patton | Associate Professor, Dept of Health Physics, University of Las Vegas, Nevada |
| Bulent Aydogan | Associate Professor, Dept of Radiation Oncology, University of Chicago Medical School |
| Varun Sehgal | Associate Professor, Dept of Radiation Oncology, UCLA |
| Kyle Padgett | Professor, Dept of Radiology, Miami School of Medicine |
| Eunyoung Han | Assistant Professor, Dept of Radiation Oncology, University of Arkansas Medical School |
| Chris Watchman | Associate Professor, Dept of Radiation Oncology, University of Arizona |
| KwangPyo Kim | Associate Professor, Dept of Nuclear Eng., Kyung Hee University, Seoul, South Korea |
| Choonik Lee | Associate Professor, Dept of Radiation Oncology, University of Michigan |
| Kayla Kielar | Assistant Professor, Dept of Radiation Oncology, Stanford University |
| Deanna Pafundi | Associate Professor, Mayo Clinic |
| Perry Johnson | Assistant Professor, Dept of Radiation Oncology, University of Miami |
| Laura Padilla | Assistant Professor, Dept of Radiation Oncology, Virginia Commonwealth University |
| Amir Bahadori | Assistant Professor, Dept of Nuclear Engineering, Kansas State University |
| Chulhaeng Huh | Assistant Professor, Dept. of Radiation Oncology, Augusta University |
| Bryan Schwarz | Assistant Professor, Dept. of Radiology, University of Florida |
| Emily Marshall | Assistant Professor, Dept. of Radiology, University of Chicago |
| Colin Paulbeck | Assistant Professor, Dept. of Radiology, Johns Hopkins University |

Alumni (Master's)

Texas A&M University

1. **Smith, Miles, MS** (Health Physics – May 1990)
Initial Position – Health Physicist, Benchmark Environmental Corporation
Thesis – Nearest-Neighbor Distributions of Free Radicals Produced within Charged-Particle Tracks in Liquid Water
2. **Felsher, Harry, MS** (Nuclear Engineering – May 1991)
Initial Position – Technical Assistant, US Nuclear Regulatory Commission
Thesis – Design of a Portable Shield for Space Applications
3. **Brown, Chad, MS** (Health Physics – December 1992)
Initial Position – Health Physics Consultant, Oak Ridge, Tennessee
Thesis – Characterization of Aluminum Oxide Thermoluminescent Dosimeter Response to Beta-Radiation
4. **Spence, Jody, MS** (Health Physics – May 1993)
Initial Position – Assistant Radiation Safety Officer, UT Southwest Medical Center at Dallas
Thesis – A Feasibility Study of a Gelatin-Based Tissue Substitute
5. **Hernandez, Oscar, MS** (Health Physics – August 1993)
Initial Position – Chief Medical Physicists – Travis Air Force Base, California
Thesis – A Linear Time-Varying Simulation Model of the Respiratory System
6. **Zuzarte de Mendonca, Anne, MS** (Nuclear Engineering – August 1993)
Initial Position – Returned to France
Thesis – Trabecular Bone Dosimetry Using a Monte Carlo Code
7. **Calvo, Sebastian, MS** (Health Physics – August 1994)
Initial Position – Internal Dosimetrist at the Oak Ridge National Laboratory
Thesis – Estimates of Electron Absorbed Fractions of Energy for the Upper Respiratory Tract
8. **Delisle, Christine, MS** (Health Physics – August 1994)
Initial Position – Returned to France
Thesis – Crew Cancer-Risk Reduction by Utilizing Nuclear Propulsion in Manned Space Missions
9. **Crady, Donald, MS** (Health Physics – August 1994)
Current Employment – Radiation Protection Officer, U.S. Army
Non-Thesis Project – An Improved Dosimetric Model of the Brain
10. **Bouchet, Lionel, MS** (Nuclear Engineering – December 1994)
(Continued into UF PhD Program in HP)
Thesis – Electron Dosimetry Studies in the Brain
11. **Parry, Robert, MS** (Health Physics – May 1995)
Initial Position – Assistant Radiation Safety Officer, Ben Taub Hospital, Houston, Texas, Baylor College of Medicine.
Thesis – S-values for Bone-Seeking Radionuclides
12. **Walker, Scottie, MS** (Health Physics – May 1995)
Initial Position – Health Physicist, Sandia National Laboratory
Thesis – Experimental Verification of Monte Carlo Transport Calculations
13. **Charlton, Michael, MS** (Health Physics – August 1995)
Initial Position – Assistant Radiation Safety Officer, Texas A&M University
Thesis – Beta-Particle Response of TLDs Exposed to Radioactive Noble Gases

University of Florida

14. **Reyes, Ricardo, MS** (Health Physics – August 1996)
Initial Position – Nuclear Medical Science Officer, Army Medical Corp, Belcamp, Maryland
Thesis – Estimates of Organ Doses for Pediatric Patients Undergoing Diagnostic X-Ray Procedures
15. **Chohan, Talal, MS** (Health Physics – December 1996)
Initial Position – Medical Physicist, OnCURE Medical Corporation, Jacksonville, Florida
Thesis – A Survey of Plain Film X-Ray Examination Parameters for Pediatric Patients
16. **Mohr, Cecile, MS** (Medical Physics – May 1997)

- Initial Position* – Sales Engineering, Siemens, Medical Engineering Division, Erlangen, Germany,
Non-Thesis Project – ROC Analysis of Screen-Film versus CR Radiographs
17. **Thomsen, Loren, MS** (Health Physics – August 1997),
Initial Position – Service Engineer, National Instruments, Inc., Austin, TX
Thesis – Virtual Instrumentation to Replace Nuclear Instrumentation Modules in Radiation Measurement Education
18. **Jokisch, Derek, MS** (Health Physics – August 1997),
(Continued into PhD Program in MHP)
Thesis – NMR Imaging as a Tool for Studying Beta-Dosimetry in Trabecular Bone and Red Marrow Regions
19. **Wagner, Tom, MS** (Health Physics – August 1997)
(Continued into PhD Program in MP)
Non-Thesis Project – Design of an Improved Radiation Detection and Instrumentation Laboratory Course Curriculum
20. **Blanco, Pablo, MS** (Health Physics – August 1998),
Initial Position – Commission for Atomic Energy (CEA), France
Thesis – Revisions and Radiation Transport in Mathematical Models of Adult and Pediatric Patients
21. **Patton, Phillip, PhD** (Health Physics – August 1998)
(Continued into PhD Program in MHP)
Thesis – NMR Assessment of Chord Distributions for Trabecular Bone Dosimetry: Effects of Sample Freezing & Thawing
22. **Sun, Caijun, MS** (Medical Physics – May 1998)
(Continued into PhD Program in ECE)
Thesis – Computational Models of Radiation Dose Distribution Around Radioactive Stents
23. **Sehgal, Varun, MS** (Medical Physics)
(Continued into PhD Program in BME)
Thesis – Monte Carlo Characterization of the Dose Distribution Near P-32-Coated Stents
24. **Pomije, Brian, MS** (Medical Physics – August 1999),
Initial Position – Navy Therapy Physicist stationed at San Diego
Thesis – Radiation Dosimetry Of Newborn Patients From Diagnostic Fluoroscopic Examinations: Voiding Cystourethrograms (VCUGs)
25. **Farfan, Eduardo, MS** (Health Physics – May 1999)
(Continued into PhD Program in HP)
Thesis – Probabilistic Lung Dosimetry with Application to Uranium Dioxide and Octoxide Aerosols
26. **Rajon, Didier, MS** (Health Physics - August 1999)
(Continued into PhD Program in HP)
Thesis – Trabecular Bone Dosimetry: Assessment of Minimum Voxel Size for Nuclear Magnetic Resonance Imaging
27. **Bourke, Vincent, MS** (Health Physics – December 1999),
Initial Position – Doctoral Program at University of Texas at Dallas
Non-Thesis Project – A Visual Basic Teaching Module for Radiochemistry
28. **Wilson, Kathryn, MS** (Health Physics – December 2000),
(Continued into PhD Program in MP)
Thesis – A Comparison Study of Dosimeters: TLDS versus Double Strand Breaks in DNA Analyzed by Capillary Electrophoresis
29. **Sessions, Jennifer, MS** (Biomedical Engineering – August 2001),
Initial Position – Biomedical Engineer, Zmed, Inc.
Thesis – The Determination of Effective Doses for Pediatric Fluoroscopy Studies
30. **Shah, Amish, MS** (Biomedical Engineering – December 2001)
(Continued into PhD Program in Biomedical Engineering)
Thesis – Geometrical Distribution of Adipocytes within Normal Bone Marrow: Considerations for 3D Skeletal Dosimetry Models
26. **Nipper, Josh, MS** (Biomedical Engineering – May 2002),
Initial Position – Biomedical Engineer, U.S. Food and Drug Administration
Thesis – Two voxelized tomographic models of pediatric patients in the first year of life

27. **Kim, Tae-Hoon, MS** (Health Physics – August 2002),
Initial Position – Officer, Republic of Korea Navy
Thesis – Considerations of stochastic variability in the ICRP 30 retention equations
28. **Staton, Robert, MS** (Medical Physics – May 2003)
(Continued into PhD Program in Medical Physics)
Thesis – A tomographic computational model for radiation dosimetry in pediatric radiology
29. **Pazik, Frank, MS** (Medical Physics – August 2003),
Initial Position – Medical Physicist, Charleston, South Carolina
Thesis – Organ doses in pediatric fluoroscopy
30. **Nelly Volland, MS** (Biomedical Engineering – August 2003)
(Continued into PhD Program in BME)
Thesis – Organ volumes in pediatric patients assessed via computed tomography image segmentation
31. **Williams, Matt, MS** (Medical Physics – May 2005),
Initial Position – Medical Physicist, Mobile Infirmary Medical Center, Mobile, AL
Thesis – Computed tomography dose index and beam profile characterization studies for the Siemens SOMATON Sensation 16 CT scanner for simulations of pediatric patient organ dose
32. **Hasenauer, Deanna, MS** (Health Physics – May 2006)
(Continued into PhD Program in Health Physics)
Non-Thesis Project – An image-based beta-particle skeletal dosimetry model for the 9-month male
33. **Kielar, Kayla, MS** (Health Physics – May 2006)
(Continued into PhD Program in Health Physics)
Non-Thesis Project – A skeletal reference dosimetry model for the adult female
34. **Kresge, Wendy, MS** (Medical Physics – December 2006)
(Continued into PhD Program in Medical Physics)
Thesis – Correlations between volumetric BMD and marrow volume fractions in cancellous bone
35. **Ambrose, Robert, MS** (Medical Physics – December 2006)
Initial Position – Tomotherapy, Inc., Madison, Wisconsin
Thesis – Effective dose conversion coefficients for medical emergency management
36. **Hurtado, Jorge, MS** (Health Physics – December 2006)
(Continued into PhD Program in Medical Physics)
Thesis – Measurement-to-activity conversion coefficients for medical emergency management
37. **Hough, Matt, MS** (Health Physics – May 2007)
(Continued into PhD Program in Health Physics)
Non-Thesis Project – A skeletal reference dosimetry model for the 40-year male
38. **Padilla, Laura, MS** (Medical Physics – May 2008)
(Continued into PhD Program in Medical Physics)
Thesis – 3D canine hybrid phantom for radiopharmaceutical therapy dosimetry
39. **Lodwick, Daniel, MS** (Nuclear Engineering – May 2008)
(Continued into MD Program at the University of Florida)
Thesis – Hybrid computational phantoms of the 1, 5, and 10 year male and female reference individuals.
40. **Maynard, Matthew, MS** (Medical Physics – August 2009)
(Continued into PhD Program in Medical Physics)
Thesis – Skeletal dose estimates for radiostrontium and radioyttrium in the ICRP reference 10, 20, and 30 week fetus.
41. **Sexton, Jenna, MS** (Health Physics – December 2009)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – Lung & systemic retention of Al, Ta, Ti, and W nanoparticles following inhalation exposures.
42. **Sinclair, Lindsay, MS** (Medical Physics – December 2009)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – Image-based skeletal tissue model for the ICRP reference adult female
43. **Wayson, Michael, MS** (Medical Physics – December 2009)
(Continued into PhD Program in Medical Physics)

Thesis – Complete photon dosimetry characterization of the University of Florida newborn hybrid computational dosimetry phantoms.

44. **Bahadori, Amir MS** (Medical Physics – May 2010)
(Continued into PhD Program in Medical Physics)
Thesis – Skeletal neutron dose response functions – A new protocol for evaluating dose to active marrow and bone endosteum.
45. **Geyer, John, MS** (Medical Physics – August 2010)
(Continued into MD Program at the University of Florida)
Thesis – Skeletal dosimetry models of the 15 and 20 week fetus.
46. **Cieply, Alyson, MS** (Medical Physics – December 2010)
Initial Position – seeking employment
Non-Thesis Project – Measurement of lung fluid solubility of nanoparticle metals
47. **Juneja, Badal, MS** (Medical Physics – May 2011)
(Continued into PhD Program in Medical Physics)
Thesis – Software for first responders allowing for interpretation of portable survey meter responses in radiological triage decisions
48. **Long, Daniel, MS** (Medical Physics – August 2011)
(Continued into PhD Program in Medical Physics)
Thesis – Organ doses for patients undergoing computed tomography examinations: Validation of Monte Carlo calculations using anthropomorphic phantoms
49. **Abadia, Andres, MS** (Medical Physics – May 2012)
(Continued into PhD Program in Medical Physics)
Thesis – Alternatives to the effective dose for stochastic risk assessment in medical imaging
50. **Geyer, Amy, MS** (Medical Physics – May 2012)
(Continued into PhD Program in Medical Physics)
Thesis – The UF/NCI family of hybrid computational phantoms representing the current US population of male and female children and adolescents – Applications to CT dosimetry
51. **Borrego, David, PhD** (Medical Physics – December 2012)
(Continued into PhD Program in Medical Physics)
Dissertation – In-clinic calibration of a kerma-area product meter at different radiation qualities for the assessment of skin doses incurred during interventional fluoroscopic procedures.
52. **Long, Nelia, MS** (Medical Physics – May 2013)
(Continued into PhD Program in Medical Physics)
Thesis – Fetal radiation doses in computed tomography examinations of pregnant patients: A comparison between whole-body and individual organ doses at three different gestational ages
53. **O'Reilly, Shannon, MS** (Medical Physics – August 2013)
(Continued into PhD Program in Medical Physics)
Thesis – An image-based skeletal dosimetry model for the ICRP reference adult female – internal electron sources
54. **Ficarrotta, Kayla, MS** (Medical Physics – December 2013)
(Continued into PhD Program in Medical Physics)
Thesis – A method of in-phantom organ dosimetry utilizing optically stimulated luminescent dosimeters in Toshiba computed tomography examinations for validation of Monte Carlo calculations of patient organ doses
55. **Godwin, William, MS** (Medical Physics – December 2013)
(Continued into PhD Program in Medical Physics)
Thesis – Development of intake retention and excretion fractions used in bioassay programs for metallic nanoparticle aerosols produced in modern munitions development
56. **Stepusin, Elliott, MS** (Medical Physics – May 2014)
(Continued into PhD Program in Medical Physics)
Thesis – Organ and effective dose coefficients for common computed tomography protocols using the UF/NCI family of computational reference phantoms
57. **Sands, Michelle, MS** (Medical Physics – August 2014)
(Continued into PhD Program in Medical Physics)

- Thesis* – Hybrid computational phantom of the Labrador with detailed skeletal model for radiopharmaceutical therapy dosimetry
58. **Schwarz, Bryan, MS** (Medical Physics – August 2014)
(Continued into PhD Program in Medical Physics)
Thesis – Organ dose coefficients for Asian-scaled computational phantoms resulting from external exposures at the Techa River due to ground contamination
59. **Petroccia, Heather, MS** (Medical Physics – December 2014)
(Continued into PhD Program in Medical Physics)
Thesis – A feasibility study of the use of hybrid computational phantoms for improved historical dose reconstruction in the study of late radiation effects for Hodgkin’s lymphoma.
60. **Shang, Michael, MS** (Medical Physics – December 2015)
(Continued into PhD Program in Medical Physics)
Thesis – A hybrid computational phantom of the beagle with a detailed skeletal model for radiopharmaceutical therapy dosimetry.
61. **Marshall, Emily, MS** (Medical Physics – December 2015)
(Continued into PhD Program in Medical Physics)
Thesis – Validating the University of Florida / National Cancer Institute family of hybrid computational phantoms for cardiac fluoroscopic studies.
62. **Olguin, Edmond, MS** (Medical Physics – December 2015)
(Continued into PhD Program in Medical Physics)
Thesis – Development of UFDOSE: A software for in-clinic assessment of patient organ dose in nuclear medicine.
63. **Brown, Justin, MS** (Medical Physics – December 2017)
(Continued into PhD Program in Medical Physics)
Thesis – A computational method for voxel to polygon mesh conversion of anatomic computational human phantoms and aircrew doses from cosmic-ray sources
64. **Paulbeck, Colin, MS** (Medical Physics – December 2017)
(Continued into PhD Program in Medical Physics)
Thesis – Consideration of electron sources in the internal dosimetry of the adult pregnant female at three stages of gestation.
65. **Kofler, Cameron, MS** (Medical Physics – August 2018)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project– Organ doses and cancer risks In pediatric patients undergoing PET/CT using ¹⁸F-FDG
66. **Tran, Trung, MS** (Medical Physics – August 2018)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project– Brain and ocular lens doses to operators in interventional radiology
67. **Correa, Camilo** (Medical Physics – August 2019)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – Out-of-field dose depositions of secondary neutrons generated in proton tissue equivalent materials
68. **Domal, Sean** (Medical Physics – August 2019)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – UF Library of pregnant female hybrid computational phantoms
69. **President, Bonnie** (Medical Physics – August 2020)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – A mesh-based multi-region brain model for nuclear medicine dosimetry
70. **Shao, Xuyang** (Biomedical Engineering)
Thesis Topic – *TBD*