



**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)*

Table of Contents

GENERAL INFORMATION3
Education3
Professional Certification and Registration3
Positions Held3
Significant Honors, Awards, and Appointments4
Academic Societies4
Professional Organization – *Membership*4
ACADEMIC LEADERSHIP5
Leadership Initiatives5
Membership in University Academic Committees6
Leadership Training6
PROFESSIONAL SERVICE7
Institutional Consortia7
Professional Society and Federal Agency Activities7
Editorial Board Memberships9
External Advisory Boards9
Technical Program Committees9
Reviews – *Grants*10
Reviews – *Governmental Reports*10
University Activities11
College Activities11
Departmental Activities12
CONSULTING12
PUBLICATIONS13
Books and Book Chapters13
AAPM Reports14
MIRD Documents15
NCRP Reports15
ICRP Publications15
ICRU Reports16
Refereed Journal Articles – *Published*16
Refereed Journal Articles – *In Press – Ahead of Print*31
Refereed Journal Articles – *In Press – Proofs Pending*32
Refereed Journal Articles – *Resubmitted*32
Refereed Journal Articles – *Submitted*32
Proceedings and Transactions – *Referred*32
Proceedings and Transactions – *Non-Referred*33

Table of Contents (continued)

Reviews 34

Reports and Technical Memoranda 34

Miscellaneous Publications 34

PRESENTATIONS 35

International Professional Meeting Presentations – *WE Bolch Presenter* 35

International Professional Meeting Presentations – *Students and Collaborators* 38

International Seminars and Lectures – *WE Bolch Presenter* 43

National Professional Meeting Presentations – *WE Bolch Presenter* 44

National Professional Meeting Presentations – *Students and Collaborators* 47

National and Regional Seminars and Lectures – *WE Bolch Presenter* 68

National Short Courses and Professional Enrichment Presentations – *WE Bolch Presenter* 70

Regional Professional Meeting Presentations – *WE Bolch Presenter* 70

Regional Professional Meeting Presentations – *Students and Collaborators* 72

Local Seminars and Lecturers – *WE Bolch Presenter* 73

Local Seminars and Lecturers – *Students and Collaborators* 73

SPONSORED RESEARCH ACTIVITIES 75

Current Research Grants and Contracts 75

Current Research Grants and Contracts – *Funding Table* 75

Past Research Grants and Contracts 76

Past Research Grants and Contracts – *Funding Table* 81

INTERNATIONAL ACTIVITIES 82

International Meetings Attended or Chaired 82

International Research Grants 86

International Research Collaborations 86

HONORS 87

AWARDS – Professional 87

AWARDS – Publications 87

TEACHING 88

Graduate Courses – *University of Florida* 88

Undergraduate Courses – *University of Florida* 88

SUPERVISION AND MENTORING 88

Visiting Research Scholars 88

Post-Doctoral Research Associates 88

Graduate Research Interns 89

International Examiner Appointments 89

Undergraduate Research Advisees 89

Current Students – *PhD* 92

Current Students – *MS* 92

Current Students – *Undergraduate* 92

Current Students – *Other Students* 92

Alumni – *PhD* 93

Academic Faculty Positions – *PhD Alumni* 98

Alumni – *MS* 98

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

Affiliate Appointments

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

2023	Teacher / Scholar of the Year Award, HW College of Engineering Level Award
2021	Robert's Prize – Best Paper for 2021 [<i>Phys Med Biol</i> 66 : 164001 (2021)]
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*
 - *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

Alliance for Radiopharmaceutical Therapy Tissue Effects in the Clinic (RPT-TEC)

2022 – Present Founding Member
Members – 50 individual members from USA and Europe
Current Activity – Literature review and protocol develop to gather organ-specific and radiopharmaceutical-specific data on radiation dose threshold for the induction of normal tissue toxicities in therapy nuclear medicine.

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)

2023 – Present Member, Working Group on I-131 Radiopharmaceutical Therapies
2021 – Present Member, Radiopharmaceutical Therapy Subcommittee (RTSC)
2012 – Present Member, Task Group No. 321 – Dosimetry in Radiographic Tomosynthesis Imaging
2022 – 2023 Member, Steering Committee, 2023 AAPM Summer School
2013 – 2021 Member, Task Group No. 246 – Patient Dose from Diagnostic 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)

2023 – Present Society Liaison to the Society of Nuclear Medicine and Molecular Imaging (SNMMI)
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

Wesley E. Bolch

February 16, 2024
Page 7

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 – 2021	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 – 2022	Member, ICRU Report Committee 31 on Radionuclide Therapy Treatment Planning
-------------	---

National Council on Radiation Protection and Measurement (NCRP)

2023 – Present	Senior Vice President, Program Area Committee 6 (Radiation Measurements and Dosimetry)
2023 – Present	Member, Task Group 4-9 on the Collection of US Medical Imaging Exposure Data
2019 – Present	Member, NCRP Board of Directors
2005 – Present	Member, Main Council of the NCRP
2005 – 2022	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

2023 – 2024	Chair, Radiation Therapeutics and Biology (RTB) Study Section
2021 – 2023	Full Member, Radiation Therapeutics and Biology (RTB) Study Section
2017 – 2020	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
2022 Member, NIAID Special Emphasis Panel ZAI1 SB-I (C2), Radiation/Nuclear Medical CMs

Radiation Effects Research Foundation, Hiroshima, Japan

2018 – Present Chair, Organ Dose Working Group (Charge – develop new computational anatomic phantoms of the atomic bomb survivors for dosimetry and cancer risk modeling).

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)

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

Editorial Board Memberships

Frontiers in Nuclear Medicine

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

Health Physics Society (HPS)

2002 – 2023 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, 2021 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2022 Annual Meeting
Abstract Reviewer, Scientific Program Committee, 2023 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
Member, Program Committee, Annual Meeting, Bethesda, MD, March 25-26, 2024

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 – 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)
Reviewer, European Science Foundation (2022)

Reviews – Governmental Reports

Reviewer, National Council on Radiation Protection and Measurements (NCRP)
Presidential Report on Radiation Protection Advice for the Pulsed Fast Neutron System. (July 2003)
Reviewer, Battelle Memorial Institute, Eastern Regional Technology Center
Approaches for Calculating Radiological/Chemical Doses of Inhaled/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

2017 – Present Chair, Radiation Control Committee
2015 – Present Faculty Advisor, Be The Match On Campus (Society Promoting Bone Marrow Donation)
2008 – Present Faculty Advisor, Society of Health and Medical Physics Students (SHMPS)
2021 – 2022 Member, Faculty Search Committee, Cancer Control and Population Sciences Program
2019 – 2022 Member, UF Faculty Senate
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 – Herbert Wertheim College of Engineering

2020 – Present Member, HW College of Engineering Faculty Sabbatical Committee
2013 – Present Member, Institute of Computational Engineering
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

University of Florida – College of Medicine

2021 – Present Member Medical Physics Graduate Program International Collaborations Committee
 2021 – Present Member, Medical Physics Graduate Program Research Guidelines Committee
 2020 – Present Member, Team-based Interdisciplinary Cancer Research Training (TICaRT) Program
 2015 – Present Faculty Advisory, Be The Match On Campus
 2012 – Present Member, KL2 Mentor Advisor Committee, UF Clinical and Translational Science Inst
 2011 – Present Member, Medical Physics Graduate Program Steering Committee
 2010 – Present Coordinator, Medical Physics Written Pre-Qualifying Exam

Texas A&M

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

Departmental Activities

University of Florida

2021 – Present Chair, BME Department Executive Committee
 2021 – Present Member BME Department Undergraduate Program Committee
 2018 – Present Member, BME Department Awards Committee
 2021 – 2021 Member BME Department Inclusion, Diversity, Equity, and Access (IDEA) Faculty Committee
 2018 – 2021 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

Google Scholar Citation Indices – Feb 2024:	Web of Science Citation Indices – Feb 2024:
<ul style="list-style-type: none">• Total Citations: 23,248• H-Index: 61• i10-Index: 236	<ul style="list-style-type: none">• Total Citations: 7,597• H-Index: 48

Books and Book Chapters

1. *Answers to Problems in Atoms, Radiation, and Radiation Protection* by JE Turner, TA Rhea, and WE Bolch, Pergamon Press, New York, 1987, 14 pages.
2. "Radiation Interactions and Energy Transport in the Condensed Phase", by RH Ritchie, RN Hamm, JE Turner, HA Wright, and WE Bolch in *Physical and Chemical Mechanisms in Molecular Radiation Biology*, Basic Life Sciences, Vol. 58, WA Glass and MN Varma, Editors, Plenum Press, New York, 1991, pp. 99-135.
3. "Monte Carlo Track-Structure Calculations for Aqueous Solutions Containing Biomolecules", by JE Turner, RN Hamm, RH Ritchie, and WE Bolch in *Computational Approaches in Molecular Radiation Biology*, Basic Life Sciences, Vol 63, MN Varma and A Chatterjee, Editors, Plenum Press, New York, 1994, pp. 155-166.
4. "Interactions of Low-Energy Electrons with Condensed Matter: Relevance for Track Structure", by RH Ritchie, RN Hamm, JE Turner, and WE Bolch in *Computational Approaches in Molecular Radiation Biology*, Basic Life Sciences, Vol 63, MN Varma and A Chatterjee, Editors, Plenum Press, New York, 1994, pp. 33-47.
5. "Chapter 2 - Physical and Chemical Interactions of Radiation with Living Tissues", by WE Bolch in *Internal Radiation Dosimetry*, O. G. Raabe, Editor, Medical Physics Publishers, New York, 1994, pp. 27-40.
6. "Chapter 3 - Basics of External Dosimetry", by WE Bolch and LG Bouchet^c in *Applications of New Technology in External Dosimetry*, J. G. Higginbotham, Editor, Medical Physics Publishers, New York, 1996, pp. 45-76.
7. "Chapter 15 - Monte Carlo Methods and Mathematical Models in the Dosimetry of the Skeleton and Bone Marrow", by LG Bouchet, WE Bolch, MG Stabin, KF Eckerman, JW Poston, and AR Bill, in *Monte Carlo Calculations in Nuclear Medicine: Therapeutic Applications*, Institute of Physics (2002).
8. "Chapter 5 - Mathematical Models of Human Anatomy", by JW Poston, WE Bolch, and LG Bouchet in *Monte Carlo Calculations in Nuclear Medicine: Therapeutic Applications*, Institute of Physics (2002).
9. "Chapter 1 – The Anatomical and Physiological Bases for Internal Dosimetry", by WE Bolch in *Practical Applications of Internal Dosimetry*, WE Bolch, Editor, Medical Physics Publishers, New York (2002).
10. "Chapter 6 – Medical Patient Dosimetry", by WE Bolch and CJ Watchman in *Operational Health Physics*, David Waite, Editor, Medical Physics Publishers, New York (2005).
11. "Chapter 2 – The Stylized Computational Phantoms developed at ORNL and Elsewhere", by KF Eckerman, JW Poston, Sr., WE Bolch, and XG Xu, in *Handbook of Anatomic Models for Radiation Dosimetry – Series in Medical Physics and Biomedical Engineering*, George Xu and Keith Eckerman, Editors, Taylor and Francis, New York (2009).
12. "Chapter 8 – The University of Florida Pediatric Phantom Series", by C Lee*, D Lodwick*, D Hasenauer*, S Whalen*, JL Williams, and WE Bolch, in *Handbook of Anatomic Models for Radiation Dosimetry – Series in Medical Physics and Biomedical Engineering*, George Xu and Keith Eckerman, Editors, Taylor and Francis, New York (2009).
13. "Chapter 15 – The ICRP Reference Computational Phantoms", by M Zankl, KF Eckerman, and WE Bolch, in *Handbook of Anatomic Models for Radiation Dosimetry – Series in Medical Physics and Biomedical Engineering*, George Xu and Keith Eckerman, Editors, Taylor and Francis, New York (2009).
14. "Chapter 21 – Computed Tomography for Pediatric Patients", by WE Bolch, C Lee*, C Lee*, J Hurtado*, and JL Williams, in *Handbook of Anatomic Models for Radiation Dosimetry – Series in Medical Physics and Biomedical Engineering*, George Xu and Keith Eckerman, Editors, Taylor and Francis, New York (2009).
15. "Chapter 30 – Summary and Future Needs Related to Computational Phantoms", by XG Xu, MG Stabin, WE Bolch, and WP Segars, in *Handbook of Anatomic Models for Radiation Dosimetry – Series in Medical Physics and Biomedical Engineering*, George Xu and Keith Eckerman, Editors, Taylor and Francis, New York (2009).

16. "Chapter 12 – Optimization and Dose Reduction in Medical Imaging of the Pregnant Patient", by Bolch WE, Maynard MA, Godwin WA, Geyer AA, and Kroger L., in *Dose, Benefit, and Risk in Medical Imaging*, (Dauer, LT, Zanzonico, PB, and Chu BP, Editors), Series in Imaging in Medical Diagnosis & Therapy (Karellas A, and Thomadsen, BR, Series Editors), Taylor & Francis Books, Inc. (2018).
17. "Chapter 6 – Reference Persons in External and Internal Dosimetry", by Bolch WE, in *Advanced Applied Radiation Protection Dosimetry* (Hertel N and Shaheen D, Editors), CRC Press, Taylor & Francis Group, ISBN 978-1-498-78543-3 (2019).
18. "Chapter 16 - A Robust Algorithm for Voxel-to-Mesh Phantom Conversion", by Brown JL, Furuta T, and Bolch WE, in *Brain and Human Body Modeling: Computational Human Modeling at EMBC 2018* (Makarov S, Noetscher G, and Horner M, Editors), Springer Nature Switzerland AG, ISBN 978-3-030-21293-3 (2019).
19. "Chapter 5 – Dose and Risk Characterization in CT", by Kofler C, Abadia A, Olguin E, and Bolch WE, in *Computed Tomography: New Approaches, Applications, and Operations* (Samei E and Pelc N, Editors), Springer International Publishing AG, ISBN 978-3-030-26957-9 (2020).
20. "Chapter 16 – Radionuclide Production, Radiopharmaceuticals, and Internal Dosimetry", by Wesley E. Bolch, in *The Essential Physics of Medical Imaging* (Bushberg JT, Seibert JA, Leidholdt, Jr. EM, and Boone JM, Editors), Lippincott Williams & Wilkins (2021).
21. "Study Guide to Chapter 16 – Radionuclide Production, Radiopharmaceuticals, and Internal Dosimetry", by Wesley E. Bolch, in *The Essential Physics of Medical Imaging* (Bushberg JT, Seibert JA, Leidholdt, Jr. EM, and Boone JM, Editors), Lippincott Williams & Wilkins (2021).
22. "Study Guide to Chapter 17 – Radiation Detection and Measurement", by Wesley E. Bolch, in *The Essential Physics of Medical Imaging* (Bushberg JT, Seibert JA, Leidholdt, Jr. EM, and Boone JM, Editors), Lippincott Williams & Wilkins (2021).
23. "Chapter 3 – Basic Concepts of Internal Radiation Dosimetry", by Zanzonico PB and Bolch WE, in *Monte Carlo Calculations in Nuclear Medicine: Therapeutics Applications*, IOP Series on Medical Physics and Biomedical Engineering (2022).
24. "Chapter 5 – Computational Models of Human Anatomy", by Bolch WE, in *Monte Carlo Calculations in Nuclear Medicine: Therapeutics Applications*, IOP Series on Medical Physics and Biomedical Engineering (2022).
25. "Chapter 29 – Monte Carlo Methods and Mathematical Models for Dosimetry of the Skeleton and Bone marrow", by Bolch WE, in *Monte Carlo Calculations in Nuclear Medicine: Therapeutics Applications*, IOP Series on Medical Physics and Biomedical Engineering (2022).
26. "Chapter 5 – Patient Release Criteria and Instructions", by Bolch WE and Kesner AL in *Radiopharmaceutical Therapy and Dosimetry*, Medical Physics Publishing, Madison, WI (2023).
27. "Chapter 13 – The MIRD Schema and Computational Human Phantoms", by Bolch WE in *Radiopharmaceutical Therapy and Dosimetry*, Medical Physics Publishing, Madison, WI (2023).

AAPM Reports

1. **AAPM Task Group 246 – CT Organ Dose**, Andersson J (Chair), Pavlicek W (Co-Chair), Al-Senan R, Bolch WE, Bosman H, Cody D, Dixon R, Colombo P, Dong F, Edyvean S, Jansen J, Kanal K, Leng S, Liang Q, McCollough C, McDonagh E, McNitt-Gray M, Paden R, , Rehani M, Samei E, Sechopoulos I, Supanich M, Theodorakou C, Tian R, Torresin A, Trianni A, Zamora D, Zanca F, "Estimating patient organ dose with computed tomography: A review of present methodology and DICOM information," Report from AAPM Task Group 246 and EFOMP (2019).
2. **AAPM Task Group 246 – Fluoroscopy Skin Dose**, Andersson J (Chair), Bednarik DR, Bolch WE, Boltz T, Bosmans H, Gislason-Lee AJ, Granberg C, Hellstrom M, Kanal K, McDonagh E, Paden R, Pavlicek W, Khodadadegan Y, Torresin A, Trianni A, Zamora D, "Estimating patient skin dose with fluoroscopic procedures: A review of present methodology and required DICOM information", Report from AAPM Task Group 246 and EFOMP (2020).

MIRD Documents

1. *Head and Brain Dosimetry – Absorbed Fractions of Energy and Absorbed Dose per Unit Cumulated Activity within Pediatric and Adult Head and Brain Models for Use in Nuclear Medicine Internal Dosimetry*, Bouchet LG^c, Bolch WE, Wessels BA, and Weber DA, Society of Nuclear Medicine, Reston, Virginia, 200 pages (1999).
2. *MIRD Cellular S Values - Self-Absorbed Dose per Unit Cumulative Activity for Selected Radionuclides and Monoenergetic Electron and Alpha Particle Emitters Incorporated into Different Cell Compartments*, Goddu SM, Howell RW, Bouchet LG^c, Bolch WE, and Rao DV, Society of Nuclear Medicine, Reston, Virginia, 180 pages (1997).
3. *MIRD Primer 2022 – A Complete Guide to Radiopharmaceutical Dosimetry*. Bartlett R, Brill R, Bolch WE, Dewaraja Y, Fahey F, Fisher D, Hobbs R, Howell R, Meredith R, Sgouros G, Zanzonico P, Society of Nuclear Medicine and Molecular Imaging, Reston, VA, 350 pages (2021).

NCRP Reports

1. **NCRP Report No. 161** - *Management of Persons Contaminated with Radionuclides*, National Council on Radiation Protection, Scientific Committee 4-1, W Bair, Chair, WE Bolch, Member (2009).
2. **NCRP Report No. 164** - *Uncertainties in Internal Radiation Dose Assessment*, National Council on Radiation Protection, Scientific Committee 6-3, Andre Bouville, Chair, WE Bolch, Member (2010).
3. **NCRP Report No. 184** - *Medical Radiation Exposure of Patients in the United States*, National Council on Radiation Protection, Scientific Committee 4-9, Fred Mettler, Chair, WE Bolch, Member (2019).

ICRP Publications

1. **ICRP Publication 110** - *Adult Reference Computational Phantoms*, Zankl M, Bolch WE, Eckerman KF, Menzel HG, and Petoussi-Henss N, International Commission on Radiological Protection, Committee 2, Task Group on Dose Calculations, WE Bolch, Chair. *Annals of the ICRP* **39** (2), pp. 1–165 (2009).
2. **ICRP Publication 116** - *Conversion Coefficients for Radiological Protection Quantities for External Radiation Exposures*, Petoussi-Henss N, Bolch WE, Eckerman KF, Endo A, Hertel N, Hunt J, Pelliccioni M, Schlattl H, Zankl M, International Commission on Radiological Protection, Committee 2, Task Group on Dose Calculations, WE Bolch, Chair. *Annals of the ICRP*, **40** (2-5) pp. 1–257(2010). [PMID: 22386603]
3. **ICRP Publication 128** - *Radiation Dose to Patients from Radiopharmaceuticals: A Compendium of Current Information Related to Frequently Used Substances*. Mattsson S, Johansson L, Leide Svegborn S, Liniecki J, Noßke D, Riklund KA, Stabin MG, Taylor D, Bolch WE, Carlsson S, Eckerman KF, Giussani A, Söderberg S, Valind S. International Commission on Radiological Protection, Committee 3, Task Group on Radiopharmaceuticals, WE Bolch, Corresponding Member. *Annals of the ICRP*, **44** (2S) pp. 1–321 (2015). [PMID: 26069086]
4. **ICRP Publication 130** - *Occupational Intakes of Radionuclides: Part 1*. Paquet F, Etherington G, Bailey MR, Leggett RW, Lipsztein J, Bolch WE, Eckerman KF, Harrison JD, International Commission on Radiological Protection, Committee 2, WE Bolch Member. *Annals of the ICRP* **44** (2) pp. 1-188 (2015). [PMID: 26494836]
5. **ICRP Publication 133** - *The ICRP Computational Framework for Internal Dose Assessment for Reference Adults: Specific Absorbed Fractions*. Bolch WE, Jokisch D, Zankl M, Eckerman KF, Fell T, Manger R, Endo A, Hunt J, Kim KP, Petoussi-Henss N. International Commission on Radiological Protection, Committee 2, Task Group on Computational Phantoms and Radiation Transport, WE Bolch, Chair. *Annals of the ICRP*, **45** (2) pp. 1-74 (2016). [PMID: 29749258]
6. **ICRP Publication 134** - *Occupational Intakes of Radionuclides: Part 2*. Paquet F, Bailey MR, Leggett RW, Lipsztein J, Fell T, Smith T, Nosske D, Eckerman KF, Berkovskyy V, Ansoborlo E, Giussani A, Bolch WE, and Harrison JD, International Commission on Radiological Protection, Committee 2, WE Bolch Member. *Annals of the ICRP* **45** (3/4) pp. 1- 352 (2016). [PMID: 28657340]
7. **ICRP Publication 140** - *Radiological Protection in Therapy with Radiopharmaceuticals*. Yonekura Y, Mattsson S, Flux G, Bolch WE, Dauer LT, Fisher DR, Lassmann M, Palm S, Hosono M, Doruff M, Divgi C, and Zanzonico P. International Commission on Radiological Protection, Task Group 101, WE Bolch Member. *Annals of the ICRP* **48** (1) pp. 1- 106 (2019). [PMID: 31565950]
8. **ICRP Publication 143** - *Pediatric Reference Computational Phantoms*, Bolch WE, Lee C, Zankl M, Jokisch DW, Petoussi-Henss N, Kim CH, Hunt JGS, Sato T, Eckerman KF, Kim KP, Li J, Schlattl H, Yeom YS, Wayson MB, Pafundi DH, Stepusin EJ. International Commission on Radiological Protection, Committee 2, Task

Group on Computational Phantoms and Radiation Transport, Bolch WE, Chair. Annuals with the ICRP **49** (10) pp. 1 – 303 (2020).

9. **ICRP Publication 144** – *Age-Dependent Dose Coefficients for External Exposures to Environmental Sources*, Petoussi-Henss N, Satoh D, Endo A, Eckerman KF, Bolch WE, Hunt J, Jansen J, Kim CH, Lee C, Saito K, Schlattl H, Yeom YS, and Yoo SJ, International Commission on Radiological Protection, Committee 2, Task Group on Age-Dependent Dose Coefficients, Petoussi-Henss N, Chair. Annuals of the ICRP (2020).
10. **ICRP Publication 145** – *Adult Mesh-Type Reference Computational Phantoms*, Kim CH, Bolch WE, Lee C, Petoussi-Henss N, Yeom YS, Zankl M, Choi C, Chung BS, Eckerman KF, Han MC, Kim HS, Qui R, Thang NT, International Commission on Radiological Protection, Committee 2, Task Group on Mesh-Type Phantoms, Kim CH, Chair. Annuals with the ICRP (2020).
11. **ICRP Publication 155** – *Specific Absorbed Fractions for Reference Paediatric Individuals*, Jokisch DW, Bolch WE, Schwarz BC, Martinez NE, Eckerman KF, Kim KP, Griffin KT, Godwin WJ, Gregoratto D, Smith T, and Marsh J. International Commission on Radiological Protection, Committee 2, Task Group on Computational Phantoms and Radiation Transport, Bolch WE and Jokisch DW, Co-Chairs, Annuals of the ICRP (2024).

ICRU Reports

1. **ICRU Report No. 96** – *Treatment Planning for Radiopharmaceutical Therapy*, Sgouros G, Bolch WE, Dewaraja YK, Emfietzoglou D, Konijnenberg M, Sjögreen-Gleisner K, Strigari L. International Commission on Radiation Units and Measurements, Report Committee 31 (2022).

Refereed Journal Articles (Published)

1. **Green AES**, Schwartz JM, Singhal RP, and Bolch WE, "Wind roses for Florida", *JAPCA* **32**, 822-825 (1982). [DOI: 10.1080/00022470.1982.10465470]
2. **Bolch WE**, Turner JE, Hamm RN, Wright HA, and Hurst GS, "A method of obtaining neutron dose and dose equivalent from digital measurements and analysis of recoil-particle tracks", *Health Phys.* **53**, 241-253 (1987). [PMID: 3623913]
3. **Turner JE**, Hamm RN, Wright HA, Ritchie RR, Magee JL, Chatterjee A, and Bolch WE, "Studies to link the basic radiation physics and chemistry of liquid water", *Radiat. Chem. Phys.* **32**, 503-510 (1988). [DOI: 10.1016/1359-0197(88)90056-2]
4. **Bolch WE**, Turner JE, Yoshida H, Jacobson KB, Wright HA, and Hamm RN, "Monte Carlo calculations of free ammonia production in deoxygenated solutions of glycylglycine irradiated by x-rays and ⁶⁰Co gamma-rays", *Radiat. Res.* **121**, 248-256 (1990). [PMID: 2315443]
5. **Yoshida H**, Bolch WE, Jacobson KB, and Turner JE, "Measurement of free ammonia produced by x-irradiation of aqueous solutions of glycylglycine", *Radiat. Res.* **121**, 257-261 (1990). [PMID: 2315444]
6. **Bolch WE**, Turner JE, Yoshida H, Jacobson KB, Hamm RN, and Wright HA, "Monte Carlo simulation of free radical attack to biomolecules irradiated in aqueous solution", *Radiat. Prot. Dosim.* **31**, 43-46 (1990). [DOI: 10.1093/oxfordjournals.rpd.a080636]
7. **Yoshida H**, Bolch WE, Turner JE, and Jacobson KB, "The radiation chemistry of glycylglycine in aqueous solutions", *Radiat. Prot. Dosim.* **31**, 67-70 (1990). [DOI: 10.1093/oxfordjournals.rpd.a080641]
8. Akabani G, **Poston, Sr. JW** and Bolch WE, "Estimates of absorbed fractions in small volumes for selected radionuclides", *J. of Nucl. Med.* **32**, 835-839 (1991). [PMID: 2022992]
9. **Turner JE**, Bolch WE, Yoshida H, Jacobson KB, Wright HA, Hamm RN, Ritchie RH, and Klots CE, "Radiation damage to a biomolecule: New physical model successfully traces molecular events", *Int. J. Radiat. Appl. Inst. Part A (Appl. Radiat. Isot.)* **42**, 995-1001 (1991). [PMID: 1661718]
10. **Yoshida H**, Turner JE, Bolch WE, Jacobson KB, and Garrison WM, "Measurement of products from x-irradiated glycylglycine in oxygen-free aqueous solutions", *Radiat. Res.* **129**, 258-264 (1992). [PMID: 1542714]
11. **Brown CK^G**, Bolch WE, and Poston, Sr. JW, "Characterization of Al₂O₃:C Thermoluminescent Dosimeter Response to Beta Radiation," *Radiat. Prot. Manag.* **11**, No. 1 (Jan/Feb) 30-40 (1994).
12. 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," *Radiat. Prot. Dosim.* **52**, 255-258 (1994). [DOI: 10.1093/oxfordjournals.rpd.a082196]

13. **Bolch WE** and Kim EH^G, "Calculations of electron single-event distributions for use in internal beta microdosimetry," *Radiat. Prot. Dosim.* **52**, 77-80 (1994). [DOI: 10.1093/oxfordjournals.rpd.a082165]
14. **Ritchie RH** and Bolch WE, "Aloof-trajectory interactions of low-energy electrons with condensed matter," *Radiat. Prot. Dosim.* **52**, 135-138 (1994). [DOI: 10.1093/oxfordjournals.rpd.a082176]
15. Bouchet LG^G, **Bolch WE**, Weber DA, Atkins HL, and Poston, Sr. JW, "A revised dosimetric model of the adult head and brain," *J. Nucl. Med.* **37**, 1226-1236 (1996). [PMID: 8965203]
16. Kim EK^G, **Bolch WE**, Reece WD, and Poston, Sr. JW, "A microdosimetric algorithm for electron point kernel data: 1. Monoenergetic-electron sources", *Radiat. Prot. Dosim.* **63**, 245-252 (1996). [DOI: 10.1093/oxfordjournals.rpd.a031536]
17. Kim EK^G, **Bolch WE**, Reece WD, and Poston, Sr. JW, "A microdosimetric algorithm for electron point kernel data: 2. Beta-particle sources", *Radiat. Prot. Dosim.* **63**, 253-261 (1996). [DOI: 10.1093/oxfordjournals.rpd.a031537]
18. **Poston, Jr. JW**^G, Kodimer, KA^G, Bolch WE, and Poston, Sr., JW "Calculation of absorbed energy in the gastrointestinal tract", *Health Physics* **71**, 300-306 (1996). [PMID: 8698570]
19. **Poston, Jr. JW**^G, Kodimer KA^G, Bolch WE, and Poston, Sr., JW "A revised model for the calculation of absorbed energy in the gastrointestinal tract", *Health Physics* **71**, 307-314 (1996). [PMID: 8698571]
20. **Naquin RD**^G, Poston, Sr. JW, and Bolch WE, "Response of the Al₂O₃:C thermoluminescent dosimeter in a research reactor environment", *Radiat. Prot. Manag* **13**, 32-38 (1996).
21. Wagner TH^G, **Bolch WE**, and Vernetson W, "An improved health physics laboratory exercise in neutron activation analysis" *Radiat Prot Manag* **15**, 45-52 (1998).
22. Jokisch DW^G, Patton PW^G, Bouchet LG^G, Rifkin J, Inglis BA, and **Bolch WE**, "NMR microscopy of trabecular bone and its role in skeletal dosimetry" *Health Phys.* **75** (6): 584-596 (1998). [PMID: 9827505]
23. **Bolch WE**, Turner JE, Yoshida H, Jacobson KB, Hamm RN, and Crawford OH, "Product yields from irradiated glycylglycine in oxygen-free solutions: Monte Carlo simulations and comparison with experiments", *Radiat. Env. Biophys.* **37**: 157-166 (1998). [PMID: 9840484]
24. **Bolch WE**, Robertson JS, Bouchet LG^G, Wessels BW, Erdi AK, Siegel JA, Howell RW, Aydogan B^G, Costes S^G, and Watson EE, "MIRD Pamphlet No. 17: The dosimetry of nonuniform activity distributions - Radionuclide S values at the voxel level" *J. Nucl. Med.* **40** (1): 11S-36S (1999). [PMID: 9935083]
25. Bouchet LG^G, **Bolch WE**, Weber DA, Atkins HL, Poston, Sr. JW, "MIRD Pamphlet No. 15: Radionuclide S values in a revised dosimetric model of the adult head and brain" *J. Nucl. Med.* **40** (3): 62S-101S (1999). [PMID: 10086719]
26. Bouchet LG^G and **Bolch WE**, "Five pediatric head and brain mathematical models for use in internal dosimetry", *J. Nucl. Med.* **40** (8): 1327-1336 (1999). [PMID: 10450685]
27. Bouchet LG^G, Jokisch DW^G, and **Bolch WE**, "A three-dimensional transport model for determining absorbed fractions of energy for electrons within trabecular bone" *J. Nucl. Med.* **40** (11): 1947-1966 (1999). [PMID: 10565793]
28. Bouchet LG^G and **Bolch WE**, "A three-dimensional transport model for determining absorbed fractions of energy for electrons within cortical bone" *J. Nucl. Med.* **40** (12): 2115-2124 (1999). [PMID: 10616894]
29. Bouchet LG^G, Bolch WE, Howell RW, and **Rao DV**, "S Values for radionuclides localized within the skeleton", *J. Nucl. Med.* **41** (1): 189-212 (2000). [PMID: 10647623]
30. Bishayee A, Rao DV, Bouchet LG^G, Bolch WE, and **Howell RW**, "Protection by DMSO against cell death caused by intracellularly localized I-125, I-131, and Po-210" *Radiat. Res.* **153** (4): 416-427 (2000). [PMID: 10761002]
31. Bouchet LG^G, Bolch WE, Goddu SM, Howell RW, and **Rao DV**, "Considerations in the selection of radiopharmaceuticals for palliation of bone pain from metastatic osseous lesions", *J. Nucl. Med.* **41** (4): 682-687 (2000). [PMID: 10768569]
32. Goddu SM, Bishayee A, Bouchet LG^G, Bolch WE, Rao DV, and **Howell RW**, "Marrow toxicity of P-33 versus P-32 orthophosphate: implications for therapy of bone pain and bone metastases" *J. Nucl. Med.* **41** (41): 941-951 (2000). [PMID: 10809212]
33. Bishayee A, Rao DV, Srivastava SC, Bouchet LG^G, Bolch WE, and **Howell RW**, "Marrow-sparing effects of Sn-117m(4+) DTPA for radionuclide therapy of the skeleton" *J. Nucl. Med.* **41** (12): 2043-2050 (2000). [PMID: 11138691]
34. Rajon DA^G, Jokisch DW, Patton PW^G, Shah AP^G, and **WE Bolch**, "Voxel size effects in 3D NMR microscopy performed for trabecular bone dosimetry" *Med. Phys.* **27** (11): 2624-2635 (2000). [PMID: 11128316]

35. Pomije BD^G, Huh CH^G, Tressler MA, Bolch WE, and **Hintenlang DE**, "Comparison of angular "free-in-air" and "tissue-equivalent phantom" response measurements in p-MOSFET dosimeters" *Health Phys.* **80** (5): 497-505 (2001). [PMID: 11316081]
36. Jokisch DW^G, Bouchet LG, Patton PW^G, Rajon DA^G, and **Bolch WE**, "Beta-particle dosimetry of the trabecular skeleton using Monte Carlo transport in 3D digital images" *Med. Phys.* **28** (7): 1505-1518 (2001). [PMID: 11488584]
37. Jokisch DW^G, Patton PW^G, Rajon DA^G, Inglis BA, and **Bolch WE**, "Chord distributions across 3D digital images of a human thoracic vertebra" *Med. Phys.* **28** (7): 1493-1504 (2001). [PMID: 11488583]
38. **Bolch WE**, "Alpha-particle emitters in radioimmunotherapy: New and welcomed challenges to medical internal dosimetry" *J. Nucl. Med.* **42** (8): 1222-1224 (2001). [PMID: 11483683]
39. **Bolch WE**, Farfán EB^G, Huh CH^G, Huston TE, and Bolch E, "Influences of parameter uncertainties within the ICRP-66 respiratory tract model: Particle deposition" *Health Phys.* **81**(4): 378-394 (2001). [PMID: 11569633]
40. Sehgal V^G, **Li Z**, Palta JR, and Bolch WE, "Dosimetric effect of source centering and residual plaque for beta-emitting catheter-based intravascular brachytherapy sources" *Med Phys* **28**(10): 2162-2171 (2001). [PMID: 11695779]
41. Patton PW^G, Rajon DA^G, Shah AP^G, Jokisch DW, Inglis BA, and **Bolch WE**. "Site-specific variability in trabecular bone dosimetry: considerations of energy loss to cortical bone." *Med Phys* **29**(1): 6-14 (2002). [PMID: 11831574]
42. Aydogan B^G, Marshall DT, Swarts SG, Turner JE, Boone AJ, Richards NG, and **Bolch WE**, "Site-specific OH attack to the sugar moiety of DNA: A comparison of experimental data and computational simulation" *Radiat Res* **157** (1): 38-44 (2002). [PMID: 11754640]
43. **Bolch WE**, Patton PW^G, Rajon DA^G, Shah AP^G, Jokisch DW, and Inglis BA, "Considerations of marrow cellularity in 3D dosimetric models of the trabecular skeleton" *J Nucl Med* **43**(1) 97-108 (2002). [PMID: 11801712]
44. Patton PW^G, Jokisch DW, Rajon DA^G, Shah AP^G, Inglis BA, Myers SL, and **Bolch WE**, "Skeletal dosimetry via NMR microscopy: Investigations of sample reproducibility and signal source" *Health Phys* **82** (3): 316-326 (2002). [PMID: 11845834]
45. Rajon DA^G, Patton PW^G, Shah AP^G, Watchman CJ^G, and **Bolch WE**, "Surface area overestimation within 3D digital images and its consequences for skeletal dosimetry" *Med Phys* **29** (5): 682- 693 (2002). [PMID: 12033563]
46. Rajon DA^G, Jokisch DW^A, PW Patton^A, Shah AP^G, Watchman CJ^G, and **Bolch WE**, "Voxel effects within digital images of trabecular bone and their consequences on chord length distribution measurements" *Phys Med Biol* **47**: 1741-1759 (2002). [PMID: 12069091]
47. **Bolch WE**, Patton PW^G, Shah AP^G, Rajon DA^G, and Jokisch DW^A, "Considerations of anthropometric, tissue volume, and tissue mass scaling for improved patient specificity of radionuclide S values in the skeleton." *Med Phys* **29** (6): 1054-1070 (2002). [PMID: 12094975]
48. Sessions JB^G, Roshau JN, Tressler MA, Hintenlang DE, Arreola MM, Williams JL, and **Bolch WE**, "Comparisons of point and average organ dose within an anthropomorphic physical phantom and a computational model of the newborn patient" *Med Phys* **29** (6): 1080-1089 (2002). [PMID: 12094977]
49. Sehgal V^G, Li Z, **Palta JR**, Smith KM, and Bolch WE, "Application of imaging-derived parameters to dosimetry of intravascular brachytherapy sources: Perturbation effects of residual plaque burden" *Med Phys* **29**(7): 1580-1589 (2002). [PMID: 12148741]
50. Nipper JC^G, Williams JL, and **Bolch WE**, "Creation of two tomographic voxel models of pediatric patients in the first year of life", *Phys Med Biol* **47** (17): 3143-3164 (2002). [PMID: 12361215]
51. **Stabin MG**, Eckerman KF, Bolch WE, Bouchet LG^A, and Patton PW^A, "Evolution and status of bone and marrow dose models" *Cancer Biother Radiopharm* **17** (4): 427-434 (2002). [PMID: 12396706]
52. Rajon DA^G and **Bolch WE**, "Interactions with 3D isotropic and homogeneous radiation fields: A Monte Carlo simulation algorithm" *Comput Methods Programs Biomed* **70** (2): 167-177 (2003). [PMID: 12507792]
53. **Gardin I**, Bouchet LG, Assie K, Caron J, Lisbona A, Ferrer L, Bolch WE, and Vera P, "Voxeldose: A computer program for 3D dose calculation in therapeutic nuclear medicine" *Cancer Biother Radiopharm* **18** (1): 109-115 (2003). [PMID: 12674095]

54. **Bolch WE**, Huston TE, Farfán EB^G, Vernetson WG, and Bolch, WE “Influences of parameter uncertainties within the ICRP-66 respiratory tract model: Particle clearance” *Health Phys* **84**(4): 421-435 (2003). [PMID: 12705441]
55. Farfán EB^G, Huston TE, Bolch E, Vernetson WG, and **Bolch WE**, “Influences of parameter uncertainties within the ICRP-66 respiratory tract model: Regional tissue doses for ²³⁹PuO₂ and ²³⁸UO₂/²³⁸U₃O₈” *Health Phys* **84**(4) 436-450 (2003). [PMID: 12705442]
56. Staton RJ^G, Pazik FD^G, Nipper JC^G, Williams JL, and **Bolch WE**, “A comparison of newborn stylized and tomographic models for dose assessment in pediatric radiology” *Phys Med Biol* **48**(7): 805-820 (2003). [\[Nominee 2003 Robert’s Prize – Top 10 Articles in PMB for 2003\]](#) [PMID: 12701888]
57. **Bolch WE**, Pomije BD^G, Sessions JB^G, Arreola MM, Williams JL, Pazik FD^G, “A video analysis technique for organ dose assessment in pediatric fluoroscopy: Applications to voiding cystourethrograms” *Med Phys* **30** (4) 667-680 (2003). [PMID: 12722819]
58. Thomas SJ^G, Bolch WE, Kao KJ, Bova F, and **Tran-son-tay R**, “Effects of x-ray radiation on the rheological properties of platelets and leukocytes”, *Transfusion* **43**(4): 502-508 (2003). [PMID: 12662284]
59. Shah AP^G, Patton PWA, Rajon DA^G, and **Bolch WE**, “Adipocyte spatial distributions in bone marrow: Implications for skeletal dosimetry models” *J Nucl Med* **44**(5): 774-783 (2003). [PMID: 12732680]
60. Rajon DA^G and **Bolch WE**, “Marching Cube algorithm: Review and trilinear interpolation adaptation for image-based dosimetric models” *Comput Med Imag Graph* **27** (5): 411-435 (2003). [PMID: 12821034]
61. Rajon DA^G, Shah AP^G, Watchman CJ^G, Brindle JM^G, and **WE Bolch**, “A hyperboloid representation of the bone-marrow interface within 3D NMR images of trabecular bone: Applications to skeletal dosimetry” *Phys Med Biol* **48** (12): 1721-1740 (2003). [PMID: 12870579]
62. Bouchet LG, **Bolch WE**, Blanco HP^G, Rajon DA^G, Clairand I^R, Sgouros G, and Wessels BW, “MIRD Pamphlet No. 19: Absorbed fractions and radionuclide S values for six age-dependent multi-region models of the kidney” *J Nucl Med* **44** (7): 1113-1147 (2003). [PMID: 12843230]
63. Jones AK^G, Hintenlang DE, and **Bolch WE**, “Tissue-equivalent materials for construction of tomographic dosimetry phantoms in pediatric radiology”, *Med Phys* **30** (8): 2072-2081 (2003). [PMID: 12945973]
64. Huston TE, Farfán EB^G, Bolch E, and **Bolch WE**, “Influences of parameter uncertainties within the ICRP-66 respiratory tract model: A parameter sensitivity analysis” *Health Phys* **85** (5): 553-566 (2003). [PMID: 14571988]
65. Huh CH^G, Bhutani MS, Farfán EB^G, and **Bolch WE**, “Individual variations in mucosa and total wall thickness in the stomach and rectum assessed via endoscopic ultrasound” *Physiol Meas* **24** (4): N15-N22 (2003). [PMID: 14658784]
66. Huh CH^G and **Bolch WE**, “A review of U.S. anthropometric reference data (1970 to 2000) with comparisons to both stylized and tomographic dosimetry models” *Phys Med Biol* **48** (20): 3411-3429 (2003). [PMID: 14620066]
67. Farfán EB^G, Han EY^G, Huh CH^G, Huston TE, Bolch E, and **Bolch WE**, “A revised stylized model of the extrathoracic and thoracic airways for use with the ICRP-66 respiratory tract model” *Health Phys* **86** (4) 337-352 (2004). [PMID: 15057054]
68. **Wessels BW**, Bolch WE, Bouchet LG, Brietz H, Stabin MG, DeNardo G, Sgouros G, and Sharkey R, “Bone marrow dosimetry for radionuclide therapy: a multi-institutional comparison” *J Nucl Med* **45** (10): 1725-1733 (2004). [PMID: 15471841]
69. **Fisher DR**, Rajon DA^G, Breitz HB, Goris ML, Bolch WE, and Knox SJ, “Dosimetry model for radioactivity localized to intestinal mucosa” *Cancer Biother Radiopharm* **19** (3) 293-307 (2004). [PMID: 15285876]
70. Farfán EB^G, **Bolch WE**, Huston TE, Rajon DA^G, Huh CH^G, and Bolch WE, “Uncertainties in electron absorbed fractions and lung doses from inhaled beta-emitters”, *Health Phys* **88** (1) 37-47 (2005). [PMID: 15596988]
71. Shah AP^G, Bolch WE, Rajon DA, Patton PW, and Jokisch DW, “A paired-image radiation transport (PIRT) model for skeletal dosimetry” *J Nucl Med* **46** (2) 344-353 (2005). [\[Featured Cover Article\]](#) [PMID: 15695796]
72. Shah AP^G, Rajon DA^A, Patton PWA, Jokisch DWA, and **Bolch WE**, “Accounting for beta-particle energy loss to cortical bone via paired-image radiation transport (PIRT)” *Med Phys* **32** (5) 1354-1366 (2005). [PMID: 15984687]

73. Shah AP^G, Rajon DAA, Patton PWA, Jokisch DWA, and **Bolch WE**, "A comparison of skeletal chord-length distributions in the adult male" *Health Phys* **89** (3): 199-215 (2005) [\[Featured Cover Article\]](#) [PMID: 16096496]
74. Watchman CJ^G, Jokisch DWA, Patton PWA, Rajon DAA, Sgouros G, and **Bolch WE**, "Absorbed fractions for alpha particles in tissues of trabecular bone – considerations of marrow cellularity within the ICRP reference male" *J Nucl Med* **46** (7): 1171-1185 (2005). [PMID: 16000287]
75. Kim KP^G, Wu CY, Birky BK, and **Bolch WE**, "Effective dose scaling factors for use with cascade impactor sampling data in TENORM inhalation exposures" *Health Phys* **89** (4) 359-374 (2005). [PMID: 16155458]
76. Shah AP^G, Jokisch DWA, Watchman CJ^G, Rajon DAA, Patton PWA, and **Bolch WE**, "Chord-based versus voxel-based methods of electron transport in the skeletal tissues" *Med Phys* **32** (10) 3151-3159 (2005). [PMID: 16279069]
77. Jones AK^G, Pazik FD^G, Hintenlang DE, and **Bolch WE**, "MOSFET dosimeter depth-dose measurements in heterogeneous tissue-equivalent phantoms at diagnostic x-ray energies" *Med Phys* **32** (10) 3209-3213 (2005). [PMID: 16279074]
78. Lee C^G, Williams JL, Lee C^P, and **Bolch WE**, "The UF series of tomographic computational phantoms of pediatric patients" *Med Phys* **32** (12) 3537-3548 (2005). [PMID: 16475752]
79. Han EY^G, **Bolch WE**, and Eckerman KF, "Revisions to the ORNL series of adult and pediatric computational phantoms for use with the MIRD schema" *Health Phys* **90** (4) 337-356 (2006). [PMID: 16538139]
80. Kim KP^G, Wu CY, Birky BK, Nall W, and **Bolch WE**, "Characterization of radioactive aerosols in Florida phosphate processing facilities" *Aerosol Sci Tech* **40** (6) 410-421 (2006). [DOI: 10.1080/02786820600643313]
81. Kim KP^G, Wu CY, Birky BK, and **Bolch WE**, "Influence of particle size distribution on Inhalation doses to workers in the Florida phosphate industry" *Health Phys* **91** (1) 58-67 (2006). [PMID: 16775481]
82. Kim KP^G, Wu CY, Birky BK, and **Bolch WE**, "Effective dose scaling factors for cascade impactor data for the U-238 series: A reassessment using the IMBA code", *Health Phys* **91** (4) 331-337 (2006). [PMID: 16966876]
83. Jones AK^G, Simon TA, **Bolch WE**, Holman MM^U, and Hintenlang DE, "A tomographic physical phantom of the newborn patient with real-time dosimetry I. Methods and techniques for construction" *Med Phys* **33** (9) 3274-3282 (2006). [PMID: 17022222]
84. Staton RJ^G, Jones AK^G, Lee C^P, Hintenlang DE, Arreola MM, Williams JL, and **Bolch WE**, "A tomographic physical phantom of the newborn patient with real-time dosimetry II. Scaling factors for calculation of effective dose in pediatric radiography" *Med Phys* **33** (9) 3283-3289 (2006). [PMID: 17022223]
85. Brindle JM^G, Myers SL, and **Bolch WE**, "Correlations of total pelvic spongiosa volume with both anthropometric parameters and CT-based skeletal size measurements", *Cancer Biother Radiopharm* **21** (4) 352-363 (2006). [PMID: 17079822]
86. Brindle JM^G, Trindade AA, Pichardo JC, Myers SL, Shah AP^G, and **Bolch WE**, "CT volumetry of the skeletal tissues" *Med Phys* **33** (10) 3796-3803 (2006). [PMID: 17089844]
87. Kim KP^G, Wu CY, Birky BK, and **Bolch WE**, "TENORM aerosols in the Florida phosphate industry – Assessment of lung fluid solubility and annual effective dose to workers", *Radiat Prot Dosim* (advanced access – 08Sep06) **123** (1) 41-55 (2007). [PMID: 16963435]
88. Rajon DA^G, Pichardo JC^G, Brindle JM^G, Kiellar KN^G, Jokisch DWA, Patton PWA, and **Bolch WE**, "Image segmentation of trabecular spongiosa by visual inspection of gradient magnitude", *Phys Med Biol* **51** (18) 4447-4467 (2006). [PMID: 16953037]
89. Lee C^G, Lee C^P, Williams JL, and **Bolch WE**, "Whole-body voxel phantoms of paediatric patients – UF Series B", *Phys Med Biol* **51** (18) 4649-4661 (2006). [PMID: 16953048]
90. Lee C^G, Lee C^P, and **Bolch WE**, "Age-dependent organ and effective doses for external photons – a comparison of stylized and voxel-based pediatric phantoms" *Phys Med Biol* **51** (18) 4663-4688 (2006). [PMID: 16953049]
91. Staton RJ^G, Lee C^G, Lee C^P, Williams MD^G, Hintenlang DE, Arreola MM, Williams JL, and **Bolch WE**, "Organ and effective doses in newborn patients during helical multislice computed tomography examination" *Phys Med Biol* **51** (20) 5151-5166 (2006). [PMID: 17019030]
92. Lee C^G, Lee C^P, Shah APA, and **Bolch WE**, "An assessment of bone marrow and bone endosteum dosimetry methods for photon sources" *Phys Med Biol* **51** (21) 5391-5407 (2006). [PMID: 17047259]

93. Brindle JM^G, Trindade AA, Shah AP^A, Jokisch DW^A, Patton PW^A, and **Bolch WE**, “A linear regression model for predicting patient-specific total skeletal spongiosa volume for use in molecular radiotherapy dosimetry” *J Nucl Med* **47** (11) 1875-1883 (2006). [PMID: 17079822]
94. Lee C^G, Lee C^P, Han EY^G, and **Bolch WE**, “Consideration of the ICRP 2006 revised tissue weighting factors on age-dependent values of the effective dose for external photons” *Phys Med Biol* **52** (1) 41-58 (2007). [PMID: 17183127]
95. Watchman CJ^G, Bourke VA^P, Lyon JR, Knowlton AE, Butler SL, Grier DD, Wingard JR, Braylan RC, and **Bolch WE**, “Spatial distribution of CD34+ hematopoietic cells and blood vessels in t marrow cavities of cancellous bone” *J Nucl Med* **48** (4): 645-654 (2007). [PMID: 17401104]
96. Pazik FD^G, Staton RJ^G, Williams JL, Arreola MM, Hintenlang DE, and **Bolch WE**, “Organ and effective doses in newborns and infants undergoing voiding cystourethrograms (VCUG): A comparison of stylized and tomographic phantoms” *Med Phys* **34** (1) 294-306 (2007). [PMID: 17278515]
97. Staton RJ^G, Williams JL, Arreola MM, Hintenlang DE, and **Bolch WE**, “Organ and effective doses in infants undergoing upper gastrointestinal (UGI) fluoroscopic examination” *Med Phys* **34** (2) 703-710 (2007). [PMID: 17388188]
98. Lee C^G, Lee C^P, Staton RJ^G, Hintenlang DE, Arreola MM, Williams JL, and **Bolch WE**, “Organ and effective doses in helical multislice computed tomography examinations” *Med Phys* **34** (5) 1858-1873 (2007). [PMID: 17555267]
99. Watchman CJ^A, Hasenauer D^G, and **Bolch WE**, “Derivation of site-specific skeletal masses within the current ICRP age series” *Phys Med Biol* **52** (11) 3133-3150 (2007). [PMID: 17505094]
100. Lee C^P, Lee C^G, Lodwick D^G, and **Bolch WE**, “NURBS-based 3D anthropomorphic computational phantoms for radiation dosimetry applications” *Radiat Prot Dosim* (June 13, 2007) **127** (1-4) 227-232 (2008). [PMID: 17567763]
101. **Bolch WE**, Shah AP^A, Watchman CJ^A, Jokisch DW^A, Patton PW^A, Rajon DA^A, Zankl M, Petoussi-Henss N, and KF Eckerman, “Skeletal absorbed fractions for electrons in the adult male – considerations of a revised 50- μ m definition of the bone endosteum” *Radiat Prot Dosim* (Adv Access June 7, 2007) **127** (1-4) 169-173 (2008). [[Invited Paper](#)] [PMID: 17556345]
102. Lee C^G, Lodwick D^G, Hasenauer D^G, Williams JL, Lee C^P, and **Bolch WE**, “Hybrid computational phantoms of the male and female newborn patient – NURBS-based whole-body models” *Phys Med Biol* **52** (12) 3309-3333 (2007). [[Nominee 2007 Robert’s Prize – Top 10 Articles in PMB for 2007](#)] [PMID: 17664546]
103. **Zankl M**, Eckerman KF, and Bolch WE, “Voxel-based model representing the male and female ICRP reference adult – the skeleton” *Radiat Prot Dosim* (Adv Access – June, 2, 2007) **127** (1-4) 174-186 (2008). [[Invited Paper](#)] [PMID: 17545663]
104. **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?” *Radiat Prot Dosim* (Adv Access – June 14, 2007) **127** (1-4) 192-196 (2008). [PMID: 17569687]
105. **Hunt JG**, Watchman CJ, and Bolch WE, “Calculation of absorbed fractions to human skeletal tissues due to alpha particles using Monte Carlo and 3D chord-based transport techniques” *Radiat Prot Dosim* (Adv Access – June 14, 2007) **127** (1-4) 223-226 (2007). [PMID: 17569685]
106. Pichardo JC^G, Trindade AA, Brindle JM^G, and **Bolch WE**, “Method for estimating skeletal spongiosa volume and active marrow mass in the adult male and adult female” *J Nucl Med* **48** (11) 1880-1888 (2007). [PMID: 17942808]
107. **Dimbylow P** and Bolch WE, “Whole-body averaged SAF from 50 MHz to 4 GHz in the University of Florida child voxel phantoms” *Phys Med Biol* **52** (22) 6639 – 6649 (2007). [PMID: 20157229]
108. **Eckerman KF**, Bolch WE, Zankl M, and Petoussi-Henss N, “Response functions for computing absorbed dose to skeletal tissues from photon irradiation” *Radiat Prot Dosim* (Adv Access –January 11, 2008) **127** (1-4) 187-191 (2008). [[Invited Paper](#)] [PMID: 18192667]
109. Whalen S^G, Lee C^P, Williams JL, and **Bolch WE**, “Anthropometric approaches and their uncertainties to assigning computational phantoms to individual patients in pediatric dosimetry studies” *Phys Med Biol* **53** (2) 453-471 (2008). [PMID: 18184999]
110. Padilla L^G, Lee C^P, Milner R, Shahlaee A, and **Bolch WE**, “Canine anatomical phantom for preclinical dosimetry in internal emitter therapy” *J Nucl Med* **49** (3) 446-452 (2008). [PMID: 18287264]

111. Jarlskog CZ, Lee CP, Bolch WE, Xu XG, and **Paganetti H**, "Assessment of organ specific neutron equivalent doses in proton therapy using whole-body age-dependent voxel phantoms" *Phys Med Biol* **53** (3) 693-717 (2008). [PMID: 18199910]
112. **Aydogan BA**, Bolch WE, Swarts SG, Turner JE, and Marshall DT, "Monte Carlo simulations of site-specific radical attack to DNA bases" *Radiat Res* **169** (2) 223-231 (2008). [PMID: 18220458]
113. **Bolch WE**, "Further explorations of cellular uptake of radioactivity", *J Nucl Med* **49** (6) 869-870 (2008). [PMID: 18511843]
114. Lee CP, Lodwick DG, Williams JL, and **Bolch WE**, "Hybrid computational phantoms of the 15-year male and female adolescent: Applications to computed tomography organ dosimetry for patients of variable morphometry" *Med Phys* **35** (6) 2366-2382 (2008). [PMID: 18649470]
115. Lee CP, Chell E, Gertner M, Hansen S, Howell RW, Hanlon J, and **Bolch WE** *, "Dosimetry characterization of a multi-beam radiotherapy treatment for age-related macular degeneration" *Med Phys* **35** (11) 5151-5160 (2008). [PMID: 19070249]
116. **Wessels BW**, Konijnenberg MW, Dale RG, Breitz HB, Cremonesi M, Meredith RF, Green AJ, Bouchet LGA, Brill AB, Bolch WE, Sgouros G, and Thomas SR, "MIRD Pamphlet No. 20: The effective of model assumptions on kidney dosimetry and response: Implications for radionuclide therapy", *J Nucl Med* **49** (11) 1884-1899 (2008). [PMID: 18927342]
117. **Sgouros G**, Howell RW, Bolch WE, and Fisher DR, "MIRD Commentary - A proposed name for a dosimetry unit applicable to deterministic biological effects: the Barendsen (Bd)". *J Nucl Med*. **50** (3) 485-487 (2009). [PMID: 19258259]
118. **Bolch WE**, Eckerman KF, Sgouros G, and Thomas SR, "MIRD Pamphlet No. 21 - A generalized schema for radiopharmaceutical dosimetry: Standardization of nomenclature", *J Nucl Med* **50** (3) 477-484 (2009). [PMID: 19258258]
119. Johnson PG, Lee CP, Johnson K, Siragusa D, and **Bolch WE**, "Influence of patient size on dose conversion coefficients: A hybrid phantom study for adult cardiac catheterization" *Phys Med Biol* **54** 3613-3629 (2009). [[Nominee for Robert's Prize - Top 10 Articles in PMB for 2009](#)] [PMID: 19458408]
120. Pafundi DG, Lee CP, Watchman CA, Bourke VA, Aris J, Shagina N, Harrison J, Fell T, and **Bolch WE**, "An image-based skeletal tissue model for the ICRP reference newborn", *Phys Med Biol* **54** 4497-4531 (2009). [PMID: 19556686]
121. Hanlon JG, Lee CP, Chell E, Gertner M, Hansen S, Howell R, and **Bolch WE**, "Kilovoltage stereotactic radiosurgery for age-related macular degeneration: Assessment of optic nerve dose and patient effective dose" *Med Phys* **36** (8) 3671-3681 (2009). [PMID: 19746800]
122. Lee CP, Kaufman KU, Pafundi DG, and **Bolch WE**, "An algorithm for lymphatic node placement in hybrid computational phantoms - Applications to radionuclide therapy dosimetry", *Proc IEEE* **97** (12) 2098-2108 (2009). [[Invited Paper](#)] [DOI: 10.1109/JPROC.2009.2025399]
123. Johnson PG, Whalen SG, Wayson MG, Juneja BG, Lee CP, and **Bolch WE**, "Hybrid patient-dependent phantoms covering statistical distributions of body morphometry in the US adult and pediatric population", *Proc IEEE* **97** (12) 2060-2075 (2009). [[Invited Paper](#)] [DOI: 10.1109/JPROC.2009.2032855]
124. Bourke VA^P, Watchman CJ^A, Reith JD, Jorgensen ML, Dieudonne DF, and **Bolch WE**, "Spatial gradients of blood vessels and hematopoietic stem and progenitor cells within the marrow cavities of the human skeleton" *Blood* **114** (19) 4077-4080 (2009). [PMID: 19749092]
125. **Watchman CJ^A** and Bolch WE, "Absorbed fractions for alpha particles in tissues of cortical bone" *Phys Med Biol* **54** 6009-6027 (2009). [PMID: 19773607]
126. Lee CP, Lodwick DG, Hurtado JG, Pafundi DG, Williams J, and **Bolch WE**, "The UF family of reference hybrid phantoms for computational radiation dosimetry" *Phys Med Biol* **55** 339-363 (2010). [PMID: 20019401]
127. **Bolch WE**, Lee CP, Wayson MG, and Johnson PG, "Hybrid computational phantoms for medical dose reconstruction" *Radiat Env Biophys* **49** (1) 155-168 (2010). [[Invited Review](#)] [PMID: 20039051]
128. **Bolch WE**, "The Monte Carlo method in nuclear medicine: Current uses and future potential" *J Nucl Med* **51** (3) 337-339 (2010). [PMID: 20150264]
129. **Dimbylow P**, Bolch WE, and Lee CP, "SAR calculations from 20 MHz to 6 GHz in the University of Florida newborn voxel phantom and their implications for dosimetry" *Phys Med Biol* **55** 1519-1530 (2010). [PMID: 20157229]

130. Pafundi DG, Rajon DA, Jokisch DA, Lee CP, and **Bolch WE**, “An image-based skeletal dosimetry model for the ICRP reference newborn – internal electron sources” *Phys Med Biol* **55**: 1785–1814 (2010). [[Top 25 Ranked Articles in PMB for 2010](#)] [PMID: 20208096]
131. **Li WB**, Zankl M, Schlattl H, Petoussi-Henss N, Eckerman K, Bolch WE, Oeh U, and Hoeschen C, “Impact of ^{141}Ce , ^{144}Ce , ^{95}Zr , and ^{90}Sr beta emitter dose coefficients of photon and electron SAFs calculated with ICRP/ICRU reference adult voxel computational phantoms” *Health Phys* **99** (4): 503–510 (2010). [PMID: 20838091]
132. **Dieudonné AF**, Hobbs RF, Bolch WE, Sgouros G, and Gardin I, “Fine-resolution voxel S values for constructing absorbed dose distributions at variable voxel size”, *J Nucl Med* **51**: 1600–1607 (2010). [PMID: 20847175]
133. **Nosske D**, Blanchardon E, Bolch WE, Breustedt B, Eckerman KF, Guissani A, Harrison JD, Klein W, Leggett RW, Lopez MA, Luciani A, and Zankl M, “New developments in internal dosimetry models” *Radiat Prot Dosim* **144** (1-4): 314–320 (2011). [PMID: 21036807]
134. Johnson PB^G, Geyer AM^G, Borrego D^G, Ficarrotta KR^G, Johnson KR, and **Bolch WE**, “The impact of anthropometric patient-phantom matching on organ dose: A hybrid phantom study for fluoroscopy guided interventions”, *Med Phys* **32**: 1008 – 1017 (2011). [PMID: 21452738]
135. **Lee CA**, Kim KP^A, Long D^G, Fisher R^G, Tien C^G, Simon S, Bouville A, and Bolch WE, “Organ doses for a reference adult male undergoing computed tomography estimated by Monte Carlo simulations”, *Med Phys* **38**: 1196–1206 (2011). [PMID: 21520832]
136. Bahadori AA^G, Van Baalen M, Shavers MR, Dodge C, Semones EJ, and **Bolch WE**, “Effect of anatomical modeling on space radiation dose estimates: A comparison of doses for NASA phantoms and the 5th, 50th, and 95th percentile male and female astronauts” *Phys Med Biol* **56**: 1671–1694 (2011). [PMID: 21346276]
137. Hough M^G, Johnson PB^G, Rajon DA, Jokisch DA, Lee CA, and **Bolch WE**, “An image-based skeletal dosimetry model for the ICRP reference adult male – internal electron sources”, *Phys Med Biol* **56**: 2309–2346 (2011). [[Robert’s Prize – Best Paper in PMB for 2011](#)] [PMID: 21427487]
138. Johnson PB^G, Bahadori AA^G, Eckerman KF, Lee CA, and **Bolch WE**, “Response functions for computing absorbed dose to skeletal tissues from photon irradiation – an update”, *Phys Med Biol* **56**: 2347–2366 (2011). [PMID: 21427484]
139. **Jokisch DW^A**, Rajon DA^A, Patton PW^A, and Bolch WE, “Methods for inclusion of shallow marrow and adipose tissue in pathlength-based skeletal dosimetry”, *Phys Med Biol* **56**: 2699–2713 (2011). [PMID: 21464530]
140. Hanlon J^G, Firpo M, Chell E, Moshfeghi DM, and **Bolch WE**, “Stereotactic radiosurgery for AMD: A Monte Carlo-based assessment of patient-specific tissue doses”, *Invest Ophth Visual Sci* **52**: 2334–2342 (2011). [PMID: 21087954]
141. **Kim CH**, Cho SK, Jeong J, Bolch WE, Reece, WD and Poston, Sr. JW, “Development of new two-dosimeter algorithm for effective dose in ICRP Publication 103”, *Health Phys* **100**: 462– 467 (2011). [PMID: 21451315]
142. **Kim KP**, Lee JK, and Bolch WE, “CT dosimetry computer programs: Their influence on radiation dose estimates and the necessity for their revision under new ICRP radiation protection standards”, *Radiat Prot Dosim* **146**: 252–255 (2011). [PMID: 21515617]
143. **Kim CH**, Jeong JH, Bolch WE, Cho KW, and Chung MS, “A polygon-surface reference Korean male phantom (PSRK-Man) and its direct implementation in GEANT4 Monte Carlo simulation” *Phys Med Biol* **56**: 3137–3161 (2011). [[Top 25 Ranked Articles in PMB for 2010](#)] [PMID: 21521906]
144. Rajon DA^A, Bolch WE, and **Howell RW**, “Lognormal distribution of cellular uptake of radioactivity: Monte-Carlo simulation of irradiation and cell killing in three-dimensional populations in carbon scaffolds”, *J Nucl Med* **52**: 926–933 (2011). [PMID: 21571792]
145. Maynard MR^G, Geyer JW^G, Aris JP, Shifrin RY, and **Bolch WE**, “The UF family of hybrid phantoms of the developing fetus for computational radiation dosimetry” *Phys Med Biol* **56**: 4839–4879 (2011). [[Featured Article in Current Issue](#)] [PMID: 21765203]
146. Pichardo JC^G, Milner RJ, and **Bolch WE**, “MRI measurement of bone marrow cellularity for radiation dosimetry” *J Nucl Med* **52**: 1482 – 1489 (2011). [PMID: 21799087]
147. Johnson PB^{*}, Borrego D^{*}, Balter S, Johnson K, Siragusa D, and **Bolch WE**, “Skin dose mapping for fluoroscopically guided interventions” *Med Phys* **38**: 5490–5499 (2011). [PMID: 21992367]

148. **Jokisch DW^A**, Rajon DA^A, and Bolch WE, "An image-based skeletal dosimetry model for the ICRP reference adult male – Specific absorbed fractions for neutron-generated recoil protons", *Phys Med Biol* **56**: 6857-6872 (2011). [PMID: 21983482]
149. Bahadori AA^G, Johnson PB^G, Jokisch DW^A, Eckerman KF, and **Bolch WE**, "Response functions for computing absorbed dose to skeletal tissues from neutron irradiation", *Phys Med Biol* **56**: 6873-6897 (2011) [PMID: 21983525]
150. **Sgouros G**, Frey EC, Bolch WE, Treves ST, Abadia A^G, Wayson M^G, "Administered activity optimization for pediatric diagnostic imaging of ^{99m}Tc-DMSA: An approach to balancing diagnostic imaging quality and radiation dose" *J Nucl Med* **52**: 1923-1929 (2011). [PMID: 22144506]
151. **Howell RW**, Rajon DA^A, and Bolch WE, "Monte Carlo simulation of irradiation and killing in three-dimensional cell populations with lognormal cellular uptake of radioactivity" *Int J Radiat Biol* **88**: 115-122 (2012). [PMID: 21745001]
152. Moteabbed M, Geyer A^G, Drenkkahn R, Bolch WE, and **Paganetti H**, "Comparison of whole-body phantom designs to estimate organ equivalent neutron dose for secondary cancer risk assessment in proton therapy", *Phys Med Biol* **57**: 499-515 (2012). [PMID: 22217682]
153. Hurtado JL^G, Lee C, Lodwick D^G, Goede T^U, Williams JL, and **Bolch WE**, "Hybrid computational phantoms representing the reference adult male and female adult: Construction and applications for retrospective dosimetry" *Health Phys* **102**: 292-304 (2012). [PMID: 22315022]
154. **Bolch WE**, Hurtado JL^G, Lee CA, Manger R, Hertel N, and Dickerson W, "Guidance on the use of portal survey meters for radiological triage: Time-dependent detector count rate thresholds corresponding to 50, 250, and 500 mSv effective dose for adult males and adult females," *Health Phys* **102**: 305-325 (2012). [\[Featured Cover Article\]](#) [PMID: 22420020]
155. Bahadori AA^G, Van Baalen M, Shavers MR, Semones EJ, and **Bolch WE**, "Dosimetric impacts of microgravity: an analysis of 5th, 50th, and 95th percentile male and female astronauts" *Phys Med Biol*. **57**: 1047-1070 (2012). [PMID: 22298248]
156. Wayson M^G, Lee C, Sgouros G, Treves ST, Frey E, and **Bolch WE**, "Internal photon and electron dosimetry of the newborn patient – a hybrid computational phantom study" *Phys Med Biol* **57**: 1433–1458 (2012). [PMID: 22354044]
157. **Lee CA**, Kim KP^A, Long DJ^G, and Bolch WE, "Organ doses in reference pediatric and adolescent phantoms undergoing computed tomography exams using Monte Carlo simulations" *Med Phys* **39**: 2129-2146 (2012). [PMID: 22482634]
158. Hobbs RF, Song H, Watchman CJ^A, Bolch WE, Aksnes AK, Ramdahl R, Flux GD, and **Sgouros G**, "A bone marrow toxicity model for ²²³Ra alpha-emitter radiopharmaceutical therapy" *Phys Med Biol* **57**: 3207-3222 (2012). [PMID: 22546715]
159. **Han EY^A**, Lee CA, and Bolch WE, "TEDE per cumulated activity for family members exposed to adult patients treated with I-131", *Radiat Prot Dosim* **153**: 448-456 (2012). [PMID: 22821723]
160. Rajon DA, Bolch WE, and **Howell RW**, "Survival of tumor and normal cells upon targeting with electron-emitting radionuclides" *Med Phys* **40**: 014101 (9pp) (2013). [PMID: 23298125]
161. Long D^G, Lee CA, Tien C, Fisher R, Hoerner M, Hintenlang DE, and **Bolch WE**, "Monte Carlo simulations of adult and pediatric computed tomography exams – validation studies of organ doses with physical phantoms", *Med Phys* **40**: 013901 (10pp) (2013). [PMID: 23298124]
162. Wilderman SJ, Roberson PL, Bolch WE, and **Dewaraja YK**, "Investigation of effects of variations in bone fraction and red marrow cellularity on bone marrow dosimetry in radioimmunotherapy", *Phys Med Biol* **58**: 4717-4731 (2013). [PMID: 23780474]
163. **Han EY^A**, Lee CA, McGuire L, Brown L, and Bolch WE, "Organ S values and effective doses for family members exposed to adult patients following I-131 treatment: A Monte Carlo simulation study" *Med Phys* **40**: 083901 (11pp) (2013). [PMID: 23927361]
164. Cantley JL^G, Hanlon JM^A, Chell EW, Lee CA, Smith WC, and **Bolch WE**, "Influence of eye size and beam entry angle on dose to non-targeted tissues of the eye during stereotactic x-ray radiosurgery of AMD", *Phys Med Biol* **58**: 6887-6896 (2013). [PMID: 24025704]
165. **Bahadori AA^G**, Sato T, Slaba TC, Shavers MR, Semones EJ, Van Baalen M, Bolch WE, "A comparative study of space radiation organ doses and associated cancer risks using PHITS and HZETRN", *Phys Med Biol* **58**: 7183-7207 (2013). [PMID: 24061091]

166. Xie T, Bolch WE, Lee CA, and **Zaidi H**, "Pediatric radiation dosimetry for positron-emitting radionuclides using anthropomorphic phantoms", *Med Phys* **40**: 102502 (10pp) (2013). [PMID: 24089923]
167. Farah J, Sayah R, Martinetti F, Donadille L, Lacoste V, Herault J, Delacroix S, Naurae C, Vabre I, Lee CA, Bolch WE, **Clairand I**, "Secondary neutron dose in proton therapy treatments of ocular melanoma and craniopharyngioma", [doi: 10.1093/rpd/nct283 – 2013] *Radiat Prot Dosim* **161**: 363-367 (2014). [PMID: 24704989]
168. **Endo A**, Petoussi-Henss N, Zankl M, Bolch WE, Eckerman KF, Hertel NE, Hung JG, Pelliccioni M, Schlattl H, Menzel HG, "Overview of the ICRP/ICRU adult reference computational phantoms and dose conversion coefficients for external idealized exposures", *Radiat Prot Dosim* **161**: 11-16 (2014). [PMID: 24285286]
169. Sayah R, Farah J, Donadille L, Herault J, Delacroix S, De Marzi L, De Oliveria A, Vabre I, Stichelbaut F, Lee CA, Bolch WE, and **Clairand I**, "Secondary neutron doses received by pediatric patient during intracranial proton therapy treatments", *J Radiol Prot* **34**: 279-296 (2014). [PMID: 24704989]
170. **Han EYA**, Lee C, McGuire L, and Bolch WE, "A practical guideline for the release of patients treated by I-131 based on Monte Carlo dose calculations for family members", *J Radiol Prot* **34**: N7-N17 (2014). [PMID: 24705486]
171. Maynard MR^G, Long NS^G, Moawad NS, Shifrin RY, Geyer A^G, Fong G^U, and **Bolch WE**, "The UF Family of Hybrid Phantoms of the Pregnant Female for Computational Radiation Dosimetry", *Phys Med Biol* **59**: 4325-4343 (2014). [PMID: 25030913]
172. Geyer AM^G, O'Reilly S^G, Lee C, Long DJ^G, and **Bolch WE**, "The UF/NCI family of hybrid computational phantoms representing the current US population of male and female children, adolescents, and adults – Applications to CT dosimetry" *Phys Med Biol* **59**: 5225-5242 (2014). [PMID: 25144322]
173. **Petoussi-Henss N**, Bolch WE, Eckerman K, Endo A, Hertel N, Hunt J, Menzel HG, Pelliccioni M, Schlattl H, and Zankl M, "ICRP Publication 116 – The first ICRP/ICRU application of the male and female adult reference computational phantoms", *Phys Med Biol* **59**: 5209-5224 (2014). [PMID: 25144220]
174. **Huang SY**, Bolch WE, Lee C, van Brocklin HF, Pampaloni M, Hawkins RA, Sznewajns A, DuBois SG, Matthay KK, and Seo Y, "Patient-specific dosimetry using pretherapy ¹²⁴I-MIBG dynamic PET/CT imaging before ¹³¹I-MIBG targeted radionuclide therapy for neuroblastoma", (Adv Access – 22 August 2014) *Molec Imag Biol* **17**: 284-294 (2014). [PMID: 25145966]
175. **Sechopoulos I**, Sabol JM, Berglund J, Bolch WE, Brateman L, Christodoulou E, Flynn M, Geiser M, Goodsitt M, Jones AK, Lo JY, Maidment ADA, Nishino K, Nosratieh A, Ren B, Segars WP, von Tiedemann M, "Radiation dosimetry in digital breast Tomosynthesis: Report of AAPM Tomosynthesis Subcommittee Task Group 223", *Med Phys* **41**: 091501 (10pp) (2014). [PMID: 25186375]
176. Popwell SJ^G, Schulz MD, Wagener KB, Batich CD, Milner RJ, Lagmay JP, and **Bolch WE**, "Synthesis of polymeric phosphonates for selective delivery of radionuclides to osteosarcoma", *Cancer Biotherapy and Radiopharmaceuticals* **29**: 273-282 (2014). [PMID: 25111903]
177. Maynard MR^G, Shagina NB, Tolstykh EI, Degteva MO, Fell TP, and **Bolch WE**, "Fetal organ dosimetry for the Techa River and Ozyorsk offspring cohorts: Part 1. A Urals-based series of fetal computational models." *Radiat Environ Biophys* **54**: 37-46 (2015) (Adv Access – 25 Nov 2014). [PMID: 25421863]
178. Maynard MR^G, Shagina NB, Tolstykh EI, Degteva MO, Fell TP, and **Bolch WE**, "Fetal organ dosimetry for the Techa River and Ozyorsk offspring cohorts: Part 2. Radionuclide S values for fetal self-dose and maternal cross-dose." *Radiat Environ Biophys* **54**: 47-59 (2015) (Adv Access – 28 Nov 2014) [PMID: 25430924]
179. Alves M, Santos W, Lee CA, Bolch WE, Hunt JG, **Júnior AC**, "Organ and effective dose conversion coefficients for a sitting female hybrid computational phantom exposed to monoenergetic protons in idealized irradiation geometries," *Phys Med Biol* **59**: 7957-8003 (2014). [PMID: 25427139]
180. **Han EYA**, Ha WH, Jin YW, Bolch WE and Lee CA, "Effective dose conversion coefficients for health care provider exposed to pediatric and adult victim in radiological dispersal device incidents", *J Radiol Prot* **35**: 37-45 (2015). [PMID: 25502317]
181. **Bolch WE**, Dietze G, Petoussi-Henss, N, and Zankl M, "Dosimetric models of the eye and eye lens and their use in assessing dose coefficients for ocular exposure" *Annals of the ICRP* **44**: 91-111 (2015). [PMID: 25816263]
182. Xie T, Lee CA, Bolch WE, and **Zaidi H**, "Assessment of radiation dose and cancer risks in nuclear cardiovascular imaging using realistic computational models", *Med Phys* **42**: 2955-2966 (2015). [PMID: 26127049]

183. Ding AP, Gao Y, Liu H, Caracappa PF, Long DJ^G, Bolch WE, Liu B, and **Xu XG**, "VirtualDose –software for reporting organ doses from CT for a library of adult and pediatric patients", *Phys Med Biol* **60**: 5601-5625 (2015). [PMID: 26134511]
184. **Satoh D**, Furuta T, Takahashi F, Endo A, Lee CA, and Bolch WE "Age-dependent dose conversion coefficients for external exposure to radioactive cesium in soil," *J Nucl Sci Tech* **53**: 69-81(2015). [DOI: 10.1080/00223131.2015.1021286]
185. Nguyen T, **Yeom Y**, Kim H, Wang Z, Han M, Kim C, Lee J, Zankl M, Petoussi-Henss N, Bolch W, Lee CA, and Chung B, "Incorporation of detailed eye model into polygon-mesh versions of ICRP-110 reference phantoms", *Phys Med Biol* **60**: 8695-8707 (2015). [PMID: 26509407]
186. **Lee C**, Kim KPA, Bolch WE, Moroz B, and Folio L, "NCICT: A computational solution to estimate organ doses for pediatric and adult patients undergoing CT scans", *J Radiol Prot* **35**:333 891-909 (2015). [PMID: 26609995]
187. O'Reilly SE^G, Plyku D, Sgouros G, Fahey FH, Treves ST, Frey EC, and **Bolch WE**, "A risk index for pediatric patients undergoing diagnostic imaging with ^{99m}Tc-DMSA that accounts for body habitus", *Phys Med Biol* **61**: 2319-2332 (2016). [PMID: 26930549]
188. Khamwan K, Plyku D, O'Reilly S^G, Fahey F, Treves ST, Bolch WE, and **Sgouros G**, "Pharmacokinetic modeling of ¹⁸F-fluorodeoxyglucose (FDG) for premature infants and newborns through 5-year-olds, *Eur J Nucl Med Molec Imag Res* **6**:28 (11p) (2016). [PMID: 26988861]
189. Bonfrate A, Farah J, Marzi LD, Delacroix S, Herault J, Sayah R, Lee CA, Bolch WE, and **Clariand I**, "Influence of beam incidence and irradiation parameters on stray neutron doses to healthy organ of pediatric patients treated for an intracranial tumor with passive scattering proton therapy", *Physica Medica* **32**: 590-599 (2016). [PMID: 27050170]
190. **Matsumoto S**, Koba Y, Kohno R, Lee CA, Bolch WE, Kai M, "Secondary neutron dose to pediatric patients during intracranial proton therapy: Monte Carlo simulation of the neutron energy spectrum and its organ doses", *Health Phys* **110**: 380-386 (2016). [PMID: 26910030]
191. **Yeom YS**, Kim HS, Nguyen TT, Choi C, Han MC, Kim CH, Lee JK, Zankl M, Petoussi-Henss N, Bolch WE, Lee CA, and Chung BS, "New small-intestine modeling method for surface-based computational human phantoms", *J Radiol Prot* **26**: 230-245 (2016). [PMID: 27007802]
192. **Bolch WE**, Petoussi-Henss N, Paquet F, and Harrison J, "ICRP dose coefficients: Computational development and current status", *Ann. ICRP* **45**: 156-177 (2016). [PMID: 27048756]
193. **Kim CH**, Yeom YS, Nquygen TT, Wang ZJ, Kim HS, Han MC, Lee JK, Zankl M, Petoussi-Henss N, Bolch WE, Lee CA, and Chung MS, "The reference phantoms – voxel versus polygon", *Ann ICRP* **45**: 188-201 (2016). [PMID: 26969297]
194. **Yeom YS**, Wang ZJ, Nguyen TT, Kim HS, Choi C, Han MC, Kim CH, Lee JK, Chung BS, Zankl M, Petoussi-Henss N, Bolch WE, and Lee CA, "Development of skeletal system for mesh-type ICRP reference adult phantoms", *Phys Med Biol* **61**: 7054-7073 (2016). [PMID: 27648514]
195. O'Reilly SE^G, Sinclair LA^G, Maynard MR^G, Rajon DA^A, Wayson MB^G, Marshall EL^G, and **Bolch WE**, "An image-based skeletal dosimetry model for the ICRP reference adult female – Internal electron sources." *Phys Med Biol* **61**: 8794-8824 (2016). [**Top 25 Ranked Articles in PMB for 2016**] [PMID: 27897136]
196. **Alves MC**, Galeano DC, Santos WS, Lee CA, Bolch WE, Hunt JG, da Silva AX, and Carvalho, Jr. AB, "Comparison of the effective dose rate to aircrew members using hybrid computational phantom in standing and sitting positions", *J Radiol Prot* **36**: 885-901 (2016). [PMID: 27798410]
197. Geyer AM^G, Schwarz BC^G, Hobbs RF, Sgouros G, and **Bolch WE**, "Quantitative impact of changes in marrow cellularity, skeletal size, and bone mineral density on active marrow dosimetry based upon a reference model", *Med Phys* **44**: 272-283 (2017). [**Editor's Choice Award**] [PMID: 28102950]
198. Geyer AM^G, Schwarz BC^G, O'Reilly SE^G, Hobbs RF, Sgouros G, and **Bolch WE**, "Depth-dependent concentrations of hematopoietic stem cells in the adult skeleton: Implications for active marrow dosimetry", *Med Phys* **44**: 747-761 (2017). [PMID: 28133749]
199. **Kim HS**, Yeom YS, Nguyen TT, Choi C, Han MC, Lee JK, Kim CH, Zankl M, Petoussi-Henss N, Bolch WE, Lee CA, Qui R, Eckerman K, and Chung BU, "Inclusion of thin target and source regions in alimentary and respiratory tract systems of mesh-type ICRP adult reference phantoms", *Phys Med Biol* **62**: 2132-2152 (2017). [PMID: 28112650]

200. Stepusin EJ^G, Maynard MRA, O'Reilly SE^G, Redzovic S, **Bolch WE**, Hintenlang DE, and Borak TB, "Organ doses to airline passengers screened by x-ray backscatter imaging systems", *Radiat Res* **187**: 229-240 (2017). [[Featured Cover Article](#)] [PMID: 28118113]
201. **Fahey FH**, Goodkind AB, Plyku D, Khamwan K, O'Reilly SE^G, Cao X, Frey EC, Li Y, Bolch WE, Sgouros G, and Treves ST, "Dose estimation in pediatric nuclear medicine", *Sem Nucl Med* **47**: 118-125 (2017). [[Editor's Highlight Award](#)] [PMID: 28237000]
202. **Lee CA**, Flynn MJ, Judy PF, Cody D, Bolch WE, and Kruger R, "Body size specific organ and effective doses of chest CT screening examinations of the National Lung Screening Trial", *Am J. Roent* **208**: 1-7 (2017). [PMID: 28267354]
203. Gao Y, Quinn B, Mahmood U, Long D, Erdi Y, St. Germain J, Pandit-Taskar N, Xu XG, Bolch WE, and **Dauer LT**, "A comparison of pediatric and adult CT organ dose estimation methods", *BMC Med Imag* **17**: 28 (2017). [PMID: 28446130]
204. **Furuta T**, Sato T, Han MC, Yeom YS, Kim CH, Brown JL, and Bolch WE, "Implementation of tetrahedral-mesh geometry in the Monte Carlo simulation code PHITS," *Phys Med Biol* **62**: 4798-4810 (2017). [PMID: 28375140]
205. **Cantley JL**^G, Fisher DR, Lin S, Albani DM, Zorrilla A^U, and Bolch WE, "Radiation dose to non-targeted tissues of the eye during polymer-based delivery of ⁹⁰Y to ocular melanoma of the choroid" *Biomed Phys Eng Exp* **3**:035024 (2017). [DOI: 10.1088/2057-1976/aa73fd]
206. **Alves MC**, Santos WE, Lee CA, Bolch WE, Hunt JG, Carvalho AB, "Conversion coefficients for proton beams using standing and sitting male hybrid computational phantoms in idealized irradiation geometries", *Radiat Prot Dosim* **175**: 75-86 (2017). [PMID: 27664429]
207. Abadia AF^G, Carey K, Grant K, Bolch WE, and **Morin RL**, "Spatial distribution of iron within the normal human liver using Dual-Energy CT imaging, *Invest Radiol* **52**: 693-700 (2017). [PMID: 28562414]
208. **Satoh D**, Furuta T, Takahashi F, Lee CA, and Bolch WE, "Simulation study of personal dose equivalent for external exposure to radioactive cesium distribution in soil", *J Nucl Sci Tech* **54**: 1018-1027 (2017). [DOI: 10.1080/00223131.2017.1344157]
209. Borrego D^G, Siragusa D, Balter S, and **Bolch WE**, "A hybrid phantom systems for patient skin and organ dosimetry in fluoroscopically guided interventions", *Med Phys* **44**: 4928-4922 (2017). [PMID: 28636805]
210. Petroccia H^G, Mendenhall N, Liu C, Hammer C, Culberson W, Thar T, Mitchell T, Li Z, **Bolch WE**, "A hybrid phantom Monte Carlo-based method for historical reconstruction of organ doses in patients treated with cobalt-60 for Hodgkin's lymphoma," *Phys Med Biol* **62**: 6261-6289 (2017). [PMID: 28714462]
211. Stepusin EJ^G, Long DJ^G, Ficarrota K^G, Hintenlang DE, and **Bolch WE**, "Physical validation of a Monte Carlo-based phantom-derived approach to computed tomography organ dosimetry under tube current modulation", *Med Phys* **44**: 5423-5432 (2017). [PMID: 28688151]
212. Sands MM^G, Borrego DA, Maynard MRA, Bahadori AAA, and **Bolch WE**, "Comparison of methods for individualized astronaut organ dosimetry: morphometry-based phantom library versus body contour autoscaling of a reference phantom", *Life Sci Space Res* **15**: 23-31(2017). [PMID: 29198311]
213. Stepusin, EJ^G, Long DJ^A, Marshall EL^G, and **Bolch WE**, "Assessment of different patient-to-phantom matching criteria applied to a Monte Carlo-based CT organ dose library", *Med Phys* **44**: 5498-5508 (2017). [PMID: 28777466]
214. **Sechopoulos I**, Rogers DWO, Bazalova-Carter M, Bolch WE, Heath EC, McNitt-Gray MF, Sempau J, Williamson JF, "RECORDS: Improved reporting of Monte Carlo radiation transport studies", Report of the AAPM Research Committee Task Group 268, *Med Phys* **45**: e1-e5 (2018). [[Journal award for the top downloaded article following online publication](#)] [PMID: 29178605]
215. Marshall EL^G, Borrego D^G, Tran T^U, Fudge JC, and **Bolch WE**, "Evaluation of the UF/NCI hybrid computational phantoms for use in organ dosimetry of pediatric patients undergoing fluoroscopically guided cardiac procedures", *Phys Med Biol* **63**: 055006 (16pp) (2018). [PMID: 29405126]
216. Borrego D^G, Marshall EL^G, Tran T^G, Siragusa DA, and **Bolch WE**, "Physical validation of a skin dose mapping algorithm for fluoroscopically guided interventions", *J Appl Clin Med Phys* **19**: 343-350 (2018). [PMID: 29577612]
217. Wayson MB^G and **Bolch WE**, "Individualized adjustments to reference phantom internal organ dosimetry – Scaling factors given knowledge of patient internal anatomy", *Phys Med Biol.* **63**: 085006 (20pp) (2018). [PMID: 29546844]

218. Wayson MB^G and **Bolch WE**, “Individualized adjustments to reference phantom internal organ dosimetry – Scaling factors given knowledge of patient external anatomy”, *Phys Med Biol*. **63**: 085007 (20pp) (2018). [PMID: 29546846]
219. El Basha D^U, Furuta T^F, Iyer SSR, and **Bolch WE**, “A scalable and deformable stylized model of the adult human eye for radiation dose assessment”, *Phys Med Biol* **63**: 105017 (2018). [PMID: 29570457]
220. Josefsson A, Hobbs RF, Ranka S, Schwarz B^G, Plyku D, Buchpiguel CA, de Carvalho JW, Sapienza MT, Bolch WE, and **Sgouros G**, “Comparative dosimetry for ⁶⁸Ga-DOTATATE: Impact of using updated ICRP phantoms, S values, and tissue weighting factors”, *J Nucl Med* **59**: 1281-1288 (2018). [PMID: 29439017]
221. **Kim CH**, Yeom YS, Nquygen TT, Han MC, Choi C, Lee H, Han H, Shin B, Lee JL, Kim HS, Zankl M, Petoussi-Henss N, Bolch WE, Lee C, Chung BS, Qiu R, Eckerman KF, “New mesh-type phantoms and their dosimetric applications including emergencies”, *Ann ICRP* **47**: 45-62 (2018). [PMID: 29651869]
222. **Zankl M**, Becker J, Lee C, Bolch WE, Yeom YS, Kim CH, “Computational phantom, ICRP/ICRU, and further developments”, *Ann ICRP* **47**: 35-44 (2018). [PMID: 29652167]
223. Li Y, O’Reilly SE^G, Plyku D, Treves ST, Du Y, Fahey FH, Cao X, Jha AK, Sgouros G, Bolch WE, and **Frey EC**, “A projection image database to investigate factors affecting image quality in weight-based dosing: Applications to pediatric renal SPECT”, *Phys Med Biol* **63**:145004 (13 pp) (2018). [PMID: 29893291]
224. Marshall EL^G, Borrego DA, Fudge JC, Rajderkar D, and **Bolch WE**, “Organ doses in pediatric patients undergoing cardiac-centered fluoroscopically guided interventions: Comparison of three methods for computational phantom alignment”, *Med Phys* **45**: 3926-3938 (2018). [[Editor’s Choice Award](#)] [PMID: 29896882]
225. **Sechopoulos I**, Rogers DWO, Bazalova-Carter M, Bolch WE, Heath EC, McNitt-Gray MF, Sempau J, Williamson JF, “RECORDS: Improved reporting of Monte Carlo radiation transport studies (Brief Communications)”, *Int J Radiat Oncol Biol Phys* **101**: 792-793 (2018). [PMID: 29976491]
226. Wayson MB^G, Leggett RW, Jokisch DW^A, Lee C^A, Schwarz BC^G, and **Bolch WE**, “Suggested reference values for regional blood volumes in children and adolescents”, *Phys Med Biol* **63**: 155022 (20pp) (2018). [PMID: 29999494]
227. Khamwan K, O’Reilly SE^G, Plyku D, Goodkind A, Josefsson A, Cao X, Fahey FH, Treves ST, Bolch WE, and **Sgouros G**, “Re-evaluation of pediatric ¹⁸F-FDG dosimetry: Cristy-Eckerman versus UF/NCI hybrid computational phantoms”, *Phys Med Biol* **63**: 165012 (8pp) (2018) [PMID: 30022768]
228. **Kainz W**, Neufeld E, Bolch WE, Graff C, Kim CH, Kuster N, Lloyd B, Morrison T, Segars P, Yeom YS, Zankl M, Xu GX, and Tsui BMW, “Advances in computational human phantoms and their applications in biomedical engineering – a topic review”, *IEEE Tran Radiat Plasma Med Sci* **3**: 1-23 (2019). [PMID: 30740582].
229. Griffin K, Paulbeck C^G, Bolch WE, Cullings H, Egbert S, Funamoto S, Sato T, Endo A, Hertel N, and **Lee C**, “Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: children and adults”, *Radiat Res* **191**: 369-379 (2019). [PMID: 30779693]
230. Marshall EL^A, Rajderkar D, Brown JL^G, Stepusin EA, Borrego DA, and **Bolch WE**, “A scalable database of organ doses for common diagnostic fluoroscopy examinations of children: Procedures of current practice at the University of Florida”, *Phys Med Biol* **64**: 135023 (23pp) (2019). [PMID: 31013486].
231. **Kwan ML**, Miglioretti DL, Marlow E, Bowles EJA, Weinmann S, Cheng SY, Deosaransingh KA, Chavan P, Moy L, Bolch WE, Duncan JR, Greenlee R, Kushi LH, Pole JD, Rahm AK, Stout NK, Smith-Bindman R, “Trends in medical imaging during pregnancy from 1996-2016 in the United States and Ontario, Canada: The Radiation-Induced Cancer Study”, *JAMA Network Open* **2**:e197249 (13pp)(2019). [PMID: 31339541]
232. **Furuta T**, El Basha D^U, Iyer SSR, Correa-Alfonso C^G, and Bolch WE, “Dosimetric dependence of ocular structures on eye size and shape for external radiation fields of electrons, photons, and neutrons”, *J Radiol Prot* **39**: 825-837 (2019). [PMID: 31226698]
233. **Smith-Bindman R**, Kwan ML, Theis K, Marlow E, Bolch WE, Cheng SY, Bowles EJA, Duncan JR, Greenlee R, Kushi LH, Pole JD, Rahm A, Stout NK, Weinmann S, Miglioretti DL, “Use of Medical Imaging in U.S. Integrated Health Care Systems and Ontario, Canada 2000-2016”, *JAMA* **322**: 843-856 (2019). [PMID: 31479136] [[Article Recognition by Journal – 10,780 downloads by September 2020](#)]
234. Kofler C^G, Domal S^G, Satoh D, Dewji S, Eckerman KF, and **Bolch WE**, “Organ absorbed and detriment-weighted dose rate coefficients for radionuclide-contaminated soil considering variations in body morphometry from reference conditions: Adults and children”, *Radiat Environ Biophys* **58**: 477-492 (2019). [PMID: 31489486]

235. Paulbeck C^G, Griffin K, Lee C, Cullings H, Egbert SD, Funamoto S, Sato T, Endo A, Hertel N, and **Bolch WE**, “Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: Pregnant females”, *Radiat Res* **192**: 538-561 (2019). [PMID: 31469615]
236. Li Y, O’Reilly SA, Plyku D, Treves ST, Fahey F, Du Y, Cao X, Brown J^G, Sgouros G, Bolch WE, and Frey EC, “Current pediatric administered activity guidelines for Tc-99m-DMSA SPECT based on patient weight do not provide the same task-based image quality”, *Med Phys* **46**: 4847-4856 (2019). [PMID: 31448427]
237. Carter LM, Crawford TM, Sato T, Furuta T, Choi C, Kim CH, Brown JL^G, Bolch WE, Zanzonico PB, **Lewis JS**, “PARADIM – A PHITS-based Monte Carlo tool for internal dosimetry with tetrahedral mesh computational phantoms”, *J Nucl Med* **60**: 1802-1811 (2019). [PMID: 31201251]
238. Marshall EL^G, Rajderkar D, Brown JL^G, Stepusin EJ^A, Borrego DA, Duncan J, Sammet CL, Kwan ML, Munneke JR, Miglioretti DL, Smith-Bindman R, and **Bolch WE**, “A scalable database of organ doses for common diagnostic fluoroscopy procedures of children: Procedures of historical practice for use in radiation epidemiology studies”, *Radiat Res* **192**: 649-661 (2019). [PMID: 31609677]
239. **Matsumoto S**, Yusuke K, Lee CA, and Bolch WE, “Monte Carlo study of out-of-field exposure in carbon-ion therapy: Organ doses in pediatric brain tumor treatment”, *Med Phys* **46**: 5824-5832 (2019). [PMID: 31603561]
240. **Mettler FA**, Mahesh M, Bhargavan-Chatfield M, Chambers CE, Elee JG, Frush DP, Miller DL, Royal HD, Milano MT, Spelic DC, Ansari AJ, Bolch WE, Guebert GM, Sherrier RH, Smith JM, Vetter DJ, “Patient exposure from x-ray and nuclear medicine procedures in the United States: Volume and effective dose for the period 2006-2016”, *Radiology* **295**: 418-427 (2020). [PMID: 32181730]
241. Josefsson A, Siritantikorn J, Ranka S, de Carvalho JW, Buchpiguel CA, Sapienza MT, Bolch WE, and **Sgouros G**, “Accuracy in the dosimetry of diagnostic agents: Impact of the number of source tissues used in whole organ S value-based calculations”, *EJNMMI Research* **10**:26 (9 pp) (2020). [PMID: 32189087]
242. **Sato T**, Funamoto S, Paulbeck C^G, Griffin K, Lee C, Cullings H, Egbert SD, Endo A, Hertel N, Bolch WE, “Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: Methodological improvements and organ dose response functions”, *Radiat Res* **194**: 390-402 (2020). [PMID: 33045092]
243. Brown JL^G, Sexton-Stallone B, Li Y, Frey EC, Treves ST, Fahey FH, Plyku D, Cao X, Sgouros G, and **Bolch WE**, “Body morphometry appropriate computational phantoms for dose and risk optimization in pediatric renal imaging with Tc-99m DMSA and Tc-99m MAG3”, *Phys Med Biol* **65**: 235026 (pp15) (2020). [PMID: 33245053]
244. Brown JL^G, Sexton-Stallone B, Li Y, Frey EC, Treves ST, Fahey FH, Plyku D, Cao X, Sgouros G, and **Bolch WE**, “Dosimetric considerations of Tc-99m MDP uptake within the epiphyseal plates of the long bones of pediatric patients”, *Phys Med Biol* **65**: 235025 (pp14) (2020). [PMID: 33263312]
245. Olguin E^G, President B^G, Ghaly M, Frey M, Sgouros G, and **Bolch WE**, “Specific absorbed fractions and radionuclide S values for tumors of varying size and composition”, *Phys Med Biol* **65**: 235015 (pp19)(2020). [PMID: 32992308]
246. Schwarz BC^A, Godwin WJ^A, Wayson MB^A, Dewji SA, Jokisch DW^A, Lee CA, and **Bolch WE**, “Specific absorbed fractions for a revised series of the UF/NCI pediatric phantoms: Internal photon sources”, *Phys Med Biol* **66**: 035006 (2021). [PMID: 33142280]
247. Schwarz BC^A, Godwin WJ^A, Wayson MB^A, Dewji SA, Jokisch DW^A, Lee CA, and **Bolch WE**, “Specific absorbed fractions for a revised series of the UF/NCI pediatric phantoms: Internal electron sources”, *Phys Med Biol* **66**: 035005 (2021). [PMID: 33142278]
248. Li Y, Chen J, Brown JL^G, Treves ST, Cao X, Fahey F, Sgouros G, Bolch WE, and **Frey EC**, “DeepAMO: A multi-slice multi-view anthropomorphic model observer for visual detection tasks performed on volume images”, *J. Med. Imag.* **8**: 04041204 (22pp) (2021). [PMID: 33521164].
249. Divgi C, Carrasquillo J, Meredith R, Seo Y, Frey E, Bolch WE, Zimmerman B, Akabani G, Jacobson D, Brown B, Davern SM, Hobbs RF, Humm JL, Moros EG, Morse D, Papineni R, Zanzonico P, Benedict SH, **Sgouros G**, “Overcoming barriers to radiopharmaceutical therapy: An overview from the NRG-NCI Working Group on Dosimetry of Radiopharmaceutical Therapy (RPT)”, *Int J Radiat Onc Biol Phys* **109**: 905-912 (2021) [PMID: 33309909]
250. **Carter LM**, Ramos JCO, Bolch WE, Lewis, JS, and Kesner AL, “Technical Note: Patient-morphed mesh-type phantoms to support personalized nuclear medicine dosimetry – a proof of concept study”, *Med Phys* **48**: 2018-2026 (2021) [PMID: 33595863].

251. **Bowles EJA**, Miglioretti DL, Kwan ML, Bartels U, Furst A, Cheng SY, Lau C, Greenlee RT, Weinmann S, Marlow E, Rahm AK, Stou NK, Bolch WE, Thesis K, Deosaransingh KA, Smith-Bindman, Pole JD, “Long-Term Medical Imaging Use in Children with Central Nervous System Tumors”, *Plos One* **16**: e0248643 (16pp) (2021) [PMID: 33882069]
252. Choi C, Shin B, Yeom YS, Han H, Ha S, Moon S, Son G, Nguyen TT, **Kim CH**, Chung BS, and Bolch WE, “Development of skeletal systems for ICRP pediatric mesh-type reference computational phantoms”, *J Radiol Prot* **41**: 139-161 (2021) [PMID: 33401263]
253. Plyku D, Ghaly M, Li Y, Brown JL^G, O’Reilly SE^A, Khamwan K, Goodkind AB, Sexton-Stallone B, Cao X, Zurakowski D, Fahey FH, Treves ST, Bolch WE, Frey EC, and **Sgouros G**, “Renal ^{99m}Tc-DMSA pharmacokinetics in pediatric patients”, *EJNMMI Phys* **8**:53 (pp. 12) (2021). [PMID: 34283316]
254. **Andersson J**, Bednarik D, Bolch WE, Boltz T, Bosmans H, Gislason-Lee A, Granberg C, Hellstrom M, Kanal K, McDonagh E, Paden R, Pavlicek W, Khodadadegan Y, Torresin A, Trianni A, Zamora D, “Estimation of patient skin dose in fluoroscopy: summary of a joint report by AAPM TG357 and EFOMP”, *Med Phys* **48**: e671-e696 (2021) – AOP: May 20, 2021. [PMID: 33930183] **[Journal award for the top downloaded article following online publication]**
255. Roncali E, Capala J, **Benedict S**, Akabani G, Bednarz B, Bolch WE, Buchsbaum JC, Clarke B, Coleman C, Dewaraja Y, Frey E, Ghaly M, Grudzinski J, Hobbs RF, Howell R, Humm J, Kunos C, Larson S, Lin F, Madsen M, Mirzadeh S, Morse D, Pryma D, Sgouros G, St. James S, Bhadrasain V, Wahl R, Xiao Y, Zanzonico P, Zukotynski K, “Overview of the First NRG-NCI Workshop on Dosimetry of Systemic Radiopharmaceutical Therapy (RPT)”, *JNM* **62**: 1133-1139 (2021) – AOP December 4, 2020. [PMID: 33277396]
256. **Carter LM**, Beattie B, Bolch WE, Choi C, Kim CH, Krebs S, Schoder H, Kesner AL, “Patient size-dependent dosimetry of ¹⁸F-FDG: Dose coefficients obtained with updated ICRP mesh-type phantoms”, *JNM* **62**: 1805-1814 (2021) – AOP April 16, 2021. [PMID: 33863823]
257. Choi C, Shin B, Yeom YS, Nguyen TT, Han H, Ha S, Chung BS, Bolch WE, and **Kim CH**, “Development of pediatric mesh-type reference computational phantom series of international commission on radiological protection”, *J Radiol Prot* **41**: S160-S170 (2021) – AOP June 2, 2021. [PMID: 34082408].
258. Shin JW, Xing S, Hammi A, Pursley J, Correa CA^G, Withrow J^U, Domal S^G, Bolch WE, Paganetti H, and **Grassberger C**, “HEDOS – A computational tool to assess radiation dose to circulating blood cells during external beam radiotherapy based on whole-body blood flow simulations”, *Phys Med Biol* **66**: 164001 (14 pp) (2021) – AOP July 21, 2021. [PMID: 34293735] **[Robert’s Prize – Best Paper in PMB for 2021]**
259. **Sgouros G**, Frey E, Du Y, Hobbs R, Bolch WE, “Imaging and dosimetry for alpha-particle emitter radiopharmaceutical therapy: Improving radiopharmaceutical therapy by looking into the black box”, *EJNMMI* **59**: 18-29 (2021) – AOP November 16, 2021. [PMID: 34782911]
260. Abergel R, Aris J, Bolch WE, Dewji SA, Golden A, Hopper DA, Margot D, Menker CG, Paunesku T, Schae D, and **Woloschak GE**, “The enduring legacy of Marie Curie: Impacts of radium in 21st century radiological and medical sciences”, *Int J Radiat Biol* **98**: 267-275 (2022) – AOP January 14, 2022. [PMID: 35030065]
261. Sharma S, Kapadia A, Brown J, Segars WP, Bolch WE, and **Samei E**, “A GPU-accelerated framework for individualized estimation of organ doses in digital tomosynthesis”, *Med Phys* **49**: 891-900 (2022) – AOP November 24, 2021. [PMID: 34902159]
262. Xing S, Shin J, Pursley J, Correa-Alfonso C, Depauw N, Domal S, Withrow J, Bolch WE, Grassberger C, and **Paganetti H**, “A dynamic blood flow model to compute absorbed dose to circulating blood and lymphocytes in liver external beam radiotherapy”, *Phys Med Biol* **67**: 045010 (14p) (2022) – AOP January 21, 2022. [PMID: 35061601]
263. Griffin KT, Sato T, Funamoto S, Chizhov K, Domal S^G, Paulbeck CA, Bolch WE, Cullings HM, Egbert SD, Endo A, Hertel N, and **Lee C**, “Japanese pediatric and adult atomic bomb survivor dosimetry using the J45 phantom series: Comprehensive source term modelling”, *Radiat Env Biophys* **61**:73-86 (2022) – AOP October 30, 2021. [PMID: 34718851]
264. **Kwan ML**, Miglioretti D, Bowles EJ, Weinmann S, Greenlee RT, Stout NK, Rahm AK, Alber SA, Pequeno P, Moy LM, Stewart C, Fong C, Kohnhorst D, Luce C, Mor JM, Munneke JR, Prado Y, Buth G, Cheng SY, Deosaransingh KA, Francisco M, Lakoma M, Martinez YS, Theis MK, Marlow EC, Kushi LH, Duncan JR, Bolch WE, Pole JD, Smith-Bindman R, “Quantifying cancer risk from exposures to medical imaging in the Radiation-Induced Cancers (RIC) Study: Research Methods and Cohort Profile”, *Cancer Causes & Control* **33**:711–726 (2022) – AOP February 2, 2022. [PMID: 35107724]

265. Correa-Alfonso C^G, Withrow J^U, Domal S^G, Xing S, Shin J, Grassberger C, Paganetti H, and **Bolch WE**, “A mesh-based model of liver vasculature: Implications for improved radiation dosimetry of liver parenchyma for radiopharmaceuticals”, *EJNMMI Phys* **9**: 28 (27pp) (2022) [PMID: 35416550]
266. Choi C, Shin B, Yeonsoo Y, Nguyen TT, Han H, Kim S, Son G, Moon S, Kim H, **Kim C**, Bolch WE, Jokisch DW^A, Lee C^A, and Chung BS, “Development of alimentary tract organs for the ICRP pediatric mesh-type reference computational phantoms”, *J Radiol Prot* **42**: 031508 (20 pp) (2022) [PMID: 35921807].
267. Subramanian S, He B, Frey E, Jokisch DW^A, Bolch WE, and **Sgouros G**, “Improved accuracy of S-value based dosimetry: A guide to transition from Cristy-Eckerman to ICRP adult phantoms”, *EJNMMI Phys* **9**: 57 (17pp) (2022) [PMID: 36018453].
268. Griffin KT, Eckerman KF, Manger RP, Jokisch DW^A, Bolch WE, and **Hertel NE**, “Specific absorbed fractions for spontaneous fission neutron emitters in the ICRP reference pediatric voxel phantom series”, *Health Phys* **123**: 278-286 (2022) [PMID: 35776943].
269. Shin B, Yeom YS, Choi, Bolch WE, Han H, Nguyen TT, Moon S, Son G, Kim S, Kim H, Lee S, **Kim CH**, “Incorporation of microCT-based detailed bone models into the ICRP adult mesh-type reference computational phantoms”, *Phys Med Biol* **67**: 185008 (15 pp) (2022) [PMID: 35981551].
270. **Carter LM**, Krebs S, Marquis H, Ocampo-Ramos JC, Olguin EA^A, Mason EO, Bolch WE, Zanzonico PB, and Kesner AL, “Dosimetric variability across a library of computational tumor phantoms”, *J Nucl Med* **64**: 782-790 (2022) – AOP December 8, 2022 [PMID: 37074039].
271. McCullum L, Shin J, Xing S, Beekman C, Schuemann J, Hong T, Duda D, Mohan R, Lin S, Correa-Alfonso C^G, Domal S^G, Withrow J^U, Bolch WE, Paganetti H, **Grassberger C**, “Predicting severity of radiation-induced lymphopenia in individual patients for varying dose rate and fractionation using dynamic 4D blood flow simulations”, *Int J Radiat Oncol Biol Phys* (2023) – AOP February 4, 2023 [PMID: 36739919].
272. Correa-Alfonso C^G, Withrow JD^G, Domal SJ^G, President B^G, Dawson R^G, McCullum L, Beekman C, Grassberger C, Paganetti H, **Bolch WE**, “Intra-brain vascular models within the ICRP mesh-type adult reference phantoms for applications to internal dosimetry”, *Phys Med Biol* **68**: 105001 (23 pp) (2023) [PMID: 36996844].
273. Chu P, Kofler C^A, Mahendra M, Wang Y, Chu CA, Stewart C, Delman BN, Hass B, Lee C, **Bolch WE**, **Smith-Bindman R**, “Dose length product to effective dose coefficients in children” *Ped Radiol* (2023) – AOP March 16, 2023 [PMID: 36922419].
274. **Carter LM**, Bellamy MB, Bolch WE, Choi C^P, Jokisch D^A, Kesner AL, and Kim CH, “Influence of body posture on internal organ dosimetry: Cs-137 exposure modeling using novel posture-dependent mesh computational phantoms”, *Health Phys* **125**: 137-146 (2023) – AOP May 17, 2023 [PMID: 37195207].
275. **Kesner AL**, Carter LM, Ocampo-Ramos JC, Lafontaine D, Olguin EA, Brown JA, President B^G, Jokisch DW^A, Fisher DR, and Bolch WE, “MIRD Pamphlet No. 28, Part 1: MIRDcalc – a software tool for medical internal radiation dosimetry”, *J Nucl Med* **64**: 1117-1124 (2023) [PMID: 37268428] [**Special Contribution**]
276. Carter LM, Bolch WE, Brown JA, **Kesner AL**, Ocampo-Ramos JC, Olguin EA, and Zanzonico PB, “MIRD Pamphlet No. 28, Part 2: Comparative evaluation of MIRDcalc dosimetry software across a compendium of diagnostic radiopharmaceuticals”, *J Nucl Med* (2023) – AOP June 2, 2023 [PMID: 37268423].
277. Paulbeck CJ^G, Sato T, Funamoto S, Lee C, Griffin K, Cullings HM, Egbert SD, Endo A, Hertel N, and **Bolch WE**, “Fetal and maternal atomic bomb survivor dosimetry using the J45 series of pregnant female phantoms with DS02 exposure scenarios”, *Radiat Env Biophys* **62**: 317-329 (2023) [PMID: 37296237].

Refereed Journal Articles (In Press - Ahead of Print)

1. Domal SJ, Correa-Alfonso CM, Paulbeck CJ, Griffin KT, Sato T, Funamoto S, Cullings HM, Egbert SD, Endo A, Hertel NE, Lee C, and **Bolch WE**, “Fetal and maternal atomic bomb survivor dosimetry using the J45 pregnant female phantom series: Considerations of the knees and lying postures with comparisons to the DS02 system”, *Health Phys* (in press) [PMID: 37358430].
2. Li Y, Treves ST, Brown JL, Xu J, Chen J, Ghaly M, Dugan M, Cao X, Du Y, Fahey FH, Bolch WE, Sgouros G, Frey EC, “Accounting for local body morphometry to help recommend the optimal administered activity for pediatric Tc-99m DMSA SPECT”, *Med Phys* (in press) [PMID: xxxxxxxx].

Refereed Journal Articles (In Press – Proofs Pending)

1. Ocampo-Ramos JC, Carter LM, Brown JLA, Marquis H, Uribe CF, Zanzonico PB, Bolch WE, **Kesner AL**, “The risk index as a basis for risk/benefit analyses and protocol optimization in diagnostic nuclear medicine”, *Med Phys* (in press) [PMID: **xxxxxxx**].
2. Choi C, Shin B, Yeon YS, **Kim CY**, Bolch WE, Jokisch DW^A, Han H, Lee CA, Chung BS, “Development of respiratory tract organs for ICRP pediatric mesh-type reference computational phantoms”, *Health Phys* (in press). [PMID: **xxxxxxx**]
3. Chu P, Kofler CA, Mahendra M, Wang Y, Chu C, Stewart C, Delman BN, Hass B, Lee C, **Bolch WE**, **Smith-Bindman R**, “Dose length product to effective dose coefficients in adults” *Eur Radiol* (in press).

Refereed Journal Articles (Resubmitted Following Initial Review)

1. **Kiess AP**, Sgouros G, Back T, Bardies M, Bartolini A, Bentzen S, Bernhardt P, Bloise I, Bodei L, Bolch W, Brodin P, Brosch-Lenz J, Capala J, Chiesa C, Cole PE, Cremonesi M, Deshayes E, Dewaraja Y, Formento-Cavaier R, Glatting G, Hennekes H, Hesterman J, Hobbs R, Jardine V, Jensen J, Kesner A, Konijnenberg MW, Kratochwill C, Kuo PH, Maass-Moreno R, Morris M, Nguyen Q, O’Donoghue J, Palm S, Pandit-Taskar N, Raes L, Rathke H, Saboury B, Salem N, Santoro L, Sartor O, Sathekge M, Sneeden E, Strigari L, Tagawa S, Uribe C, Walker A, Weber W, Wilson F, Yusufaly T, Zitzmann-Kolbe S, “How can radiopharmaceutical therapies reach their full potential? Improving dose reporting and Phase I clinical trial design”, *J Clin Oncol* (in review).
2. Beekman C, Withrow JD^G, Pathak SP^U, Correa-Alfonso CMA, Dawson RJ^G, Carrasco-Rojas NG, Sforza ARG, Colon-Ortiz CG^G, Bolch WE, Grassberger C, **Paganetti H**, “A stochastic model of blood flow to calculate blood dose during radiotherapy”, *Phys Med Biol* (in review).

Refereed Journal Articles (Submitted for Review)

1. **Carter LM**, Ocampo-Ramos JC, Marquis H, Bolch WE, Zanzonico PB, Kesner AL, “MIRD Pamphlet No. 29: MIRDfit – a tool for fitting biodistribution time-activity data for internal dosimetry”, *J Nucl Med* (in review).
2. **Huesa-Berral C**, Withrow J, Dawson RJ, Beekman C, Bolch WE, Paganetti H, Wehrenberg-Klee E, Bertolet A, “MIDOS: A novel model toward a treatment planning system for Microsphere DOSimetry in liver tumors”, *Phys Med Biol* (in review).
3. **Marquis H**, Ocampo-Ramos JC, Carter LM, Zanzonico P, Bolch WE, Kesner AL, “MIRD Pamphlet No. 30: MIRDy90 – A Y-90 microsphere partition model dosimetry tool”, *J Nucl Med* (in review).
4. **O’Connor A**, Park C, Bolch WE, Enqvist A, Manuel MV, “Designing lightweight neutron absorbing composites using a comprehensive absorber area density metric”, *Appl Radiat Isotopes* (in review).
5. **Xing S**, Correa-Alfonso CM, Shin J, Pursley J, Depauw N, Domal S, Withrow J, Bolch WE, Grassberger C, Paganetti H, “Towards finding the right liver vascular model for estimating radiation dose to circulating blood during radiotherapy in hepatocellular carcinoma patients”, *Int J Radiat Oncol Biol Phys* (in review).

Proceedings and Transactions (Refereed)

1. MW Stafford, WE Bolch, and WE Bolch, "Development of a Data Base Management System for Environmental Radioactivity Data", *Proceedings of the 17th Midyear Topical Meeting of the Health Physics Society*, Pasco, Washington, February 5-9, 1984, pp. 317-324.
2. WE Bolch, JK Thomas^G, KL Peddicord, SM Stevenson, and A Willoughby, "A Radiological Assessment of Space Nuclear Power Operations Near Space Station Freedom", *Transactions of the 7th Symposium on Space Nuclear Power Systems*, Albuquerque, New Mexico, January 8-11, 1990, pp. 540-549.
3. TW Shearer, G Akabani, WE Bolch, and JW Poston, Sr., "A Model for Electron and Beta Energy Deposition within Trabecular Bone", *Proceedings of the Fifth International Radiopharmaceutical Dosimetry Symposium*, Oak Ridge, Tennessee, May 7-10, 1991, pp. 290-296.
4. JC Liu^G, G Akabani, WE Bolch, and JW Poston, Sr., "Calculations of Scaled Dose Kernels for Electrons in Tissue", *Proceedings of the Fifth International Radiopharmaceutical Dosimetry Symposium*, Oak Ridge, Tennessee, May 7-10, 1991, pp. 297-308.
5. K Lee Peddicord, WE Bolch, and JK Thomas^G, "Radiation Protection Considerations in Space Station Missions", *Transactions of the 1991 Winter Meeting of the American Nuclear Society*, San Francisco, California, November 10-14, 1991, pp. 458-459.

6. WE Bolch, S Costes^G, LG Bouchet*, BW Wessels, JA Siegel, and JS Robertson, "Cubical S values for the Rapid Assessment of Suborgan Dosimetry for Nonuniform Activity Distributions," 6th International Symposium on Radiopharmaceutical Dosimetry, Gatlinburg, Tennessee, May 6-10, 1996, pp. 210-225.
7. WE Bolch and CR Jones, "Viability of the United States Academic Community in Support of Nuclear Energy", International Workshop on Infrastructure for Nuclear Energy Deployment, Organization for Economic and Cooperative Development (OECD) Nuclear Energy Agency, Paris, France, June 10-11, 1996, pp. 151-179.
8. LM Thomsen^G, WE Bolch, and WH Ellis, "Innovative Workstation Improves Laboratory Course at the University of Florida", *Transactions of the 1996 Annual Meeting of the American Nuclear Society*, Orlando, Florida, June 1-5, 1997.
9. WE Bolch and AP Shah^G, "Skeletal dose estimates via a Paired-Image Radiation Transport (PIRT) model", *Transactions of the 2004 Winter Meeting of the American Nuclear Society*, Washington, DC, November 14-18, 2004.
10. A Al-Basheer, M Ghita, G Sjoden, W Bolch, and C Lee^G, "Whole-body dosimetry simulations using the PENTRAN-MP Sn code system", *Transactions of the 2007 Annual Meeting of the American Nuclear Society*, Boston, Massachusetts, June 24-28, 2007.
11. WE Bolch, L Padilla^G, C Lee^G, R Milner, and A Shahlaee, "An image-based skeletal canine model for pre-clinical evaluations of osteosarcoma molecular radiotherapy", *Transactions of the Computational Medical Physics Working Group – Workshop II – of the American Nuclear Society*, Gainesville, Florida, October 1-3, 2007.
12. C Lee*, D Lodwick^G, and WE Bolch, "Effect of subcutaneous fat on organ dose in radiography and computed tomography: A Monte Carlo calculational study", *Transactions of the Computational Medical Physics Working Group – Workshop II – of the American Nuclear Society*, Gainesville, Florida, October 1-3, 2007.
13. KN Kielar^G, WE Bolch, and AP Shah, "A skeletal reference dosimetry model for the adult female", *Transactions of the Computational Medical Physics Working Group – Workshop II – of the American Nuclear Society*, Gainesville, Florida, October 1-3, 2007.
14. D Hasenauer^G, C Lee*, DL Lodwick*, CJ Watchman, and WE Bolch, "Development of hybrid computational newborn phantom for dosimetry calculation: the skeleton" *Transactions of the Computational Medical Physics Working Group – Workshop II – of the American Nuclear Society*, Gainesville, Florida, October 1-3, 2007.
15. S Whalen^G and WE Bolch, "An anthropometric approach to assigning reference phantoms to individual patients for medical organ dose reconstruction", *Transactions of the Computational Medical Physics Working Group – Workshop II – of the American Nuclear Society*, Gainesville, Florida, October 1-3, 2007.
16. Li Y, O'Reilly S^G, Plyku D, Cao X, Fahey F, Bolch WE, Treves ST, Sgouros G, and Frey EC, "Development of a defect model for renal pediatric SPECT imaging research", *2016 IEEE Medical Imaging Conference*, Strasbourg, France, October 29 – November 5, 2016.
17. Li Y, O'Reilly S^G, Plyku D, Treves ST, Du Y, Fahey F, Cao X, Jha AK, Bolch WE, Sgouros S, and Frey EC, "A task-based approach for balancing diagnostic image quality with administered activity in pediatric renal Tc-99m-DMSA SPECT using realistic simulated images", *2017 International Conference on Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine*, Xian Shaanxi, China, June 18-23, 2017.
18. Stegeman L, Lee CA, Bolch WE, and Bahadori A, "The effects of worn detector location on neutron detector measurements", *2018 American Nuclear Society Student Conference*, University of Florida, Gainesville, FL, April 5-7, 2018.

[Proceedings and Transactions \(Non-refereed\)](#)

1. WE Bolch, JE Turner, H Yoshida, KB Jacobson, "Calculated Yields of Ammonia in the Radiolysis of Deoxygenated Solutions of Glycylglycine", *Proceedings of the 11th Werner Brandt Workshop on Penetration Phenomena of Charged Particles in Matter* Oak Ridge, Tennessee, April 14-15, 1988, pp. 281-296.
2. JE Turner, WE Bolch, H Yoshida, KB Jacobson, OH Crawford, RN Hamm, and HA Wright, "The Irradiation of Glycylglycine in Aqueous Solution - A Case Study of Calculations from Track Structure to Biochemical Change", *Proceedings of the 12th Werner Brandt Workshop on Penetration Phenomena of Charged Particles in Matter*, San Sebastian, Spain, September 4-7, 1989, pp. 154-165.
3. SM Stevenson, WE Bolch, and JK Thomas^G, "Accommodation of Nuclear Power and Propulsion Concepts", *Proceedings of the Space Station Evolution Conference* League City, Texas, February 6-8, 1990, pp. 320-332.
4. WE Bolch, "Health Physics Academic Programs: A Current Snapshot", *Proceedings of the 28th Midyear Topic Meeting of the Health Physics Society*, Charleston, South Carolina, January 29 - February 1, 1995, pp. 51-60.

5. JW Poston, Sr., WE Bolch, and JC Rock, "Health Protection Engineering: A Merging of Health Physics, Industrial Hygiene, and Safety Engineering at Texas A&M University", *Proceedings of the 28th Midyear Topic Meeting of the Health Physics Society*, Charleston, South Carolina, January 29 - February 1, 1995, pp. 79-84.

Reviews

1. WE Bolch, "Expressionist, Version 2.02", Software Review Section, *Health Phys.* **58**, 226 (1990).
2. MR Shavers and WE Bolch, "Freditor, Version 1.5", Software Review Section, *Health Phys.* **61**, 431 (1991).
3. WE Bolch, "Microdosimetry and Its Applications", Book Review, *Physics Today*, December 1997, 70-71.
4. WE Bolch, "Intro to Nuclear Concepts for Engineers", Book Review, *Health Physics*, **78**, 102-103 (2000).
5. WE Bolch, "Medical Image Analysis", Book Review, *Health Physics*, **86**, 429 (2004).

Reports and Technical Memoranda

1. EE Watson, MG Stabin, and WE Bolch, "MIRDOSE: An IBM Basic Program for Determining Internal Dose by the MIRD Method", Oak Ridge Associated Universities, Copyright 1984.
2. WE Bolch, JE Turner, and RN Hamm, "An Algorithm for Unfolding Neutron Dose and Dose Equivalent from Digitized Recoil-Particle Tracks", Oak Ridge National Laboratory, ORNL/TM-10168 (1986).
3. WE Bolch, JE Turner, H Yoshida, KB Jacobson, RN Hamm, HA Wright, RH Ritchie, and CE Klots, "Monte Carlo Simulation of Indirect Damage to Biomolecules Irradiated in Aqueous Solution - The Radiolysis of Glycylglycine", Oak Ridge National Laboratory, ORNL/TM-10851 (1988).
4. WE Bolch, JK Thomas, KL Peddicord, P Nelson, DT Marshall, and DM Busche, "A Radiological Assessment of Nuclear Power and Propulsion Operations near Space Station Freedom", NASA CR-185185, Final Report for the project "Radiological Impact of Space Nuclear Power Applications," (NASA Lewis Research Center Contract NAG 3-944) Texas Engineering Experiment Station, Texas A&M University, College Station, Texas (1990).
5. AJ Willoughby, SM Stevenson, WE Bolch, and JK Thomas, "Astronaut Radiation Safety Evaluation for Combinations of Natural and Man-Made Sources", NASA Lewis Research Center, TM-103138 (1990).
6. KP Kim, WE Bolch, WE Bolch, CY Wu, and JW Nall, "Risk Assessment of Airborne Particulates in the Phosphate Industry", FIPR Report (March 2006).
7. KP Kim, WE Bolch, WE Bolch, CY Wu, and JW Nall, "Assessment of Airborne Particulate Lung Solubility and Internal Dose to Phosphate Workers", FIPR Report (June 2006).

Miscellaneous Publications

1. Wesley E. Bolch, "A Feasibility Study for Running Segments of a Systems Ecology Model Concurrently on Analog and Digital Computers", High Honors Program, College of Engineering, University of Florida, (1984).
2. Wesley E. Bolch, *An Algorithm for Unfolding Neutron Dose and Dose Equivalent from Digitized Recoil-Particle Tracks*, Master's Thesis, University of Florida (1986).
3. Wesley E. Bolch, *Monte Carlo Simulation of Indirect Damage to Biomolecules Irradiated in Aqueous Solution - The Radiolysis of Glycylglycine*, Ph.D. Dissertation, University of Florida (1988).
4. WE Bolch, "Health Physics Education - Back to the Future", *Health Physics Society Newsletter*, Vol. XXI, No. 6, (June 1993).
5. Mallett MW, Bolch WE, Fulmer PC, Jue TM, McCurdy DE, Pillay M, and Xu XG, "New ANSI Standard for Thyroid Phantom", *Health Physics* **109**: 177-178 (2015). [PMID: 26107438]

PRESENTATIONS

International Professional Meeting Presentations - WE Bolch Presenter

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. Presenter – underlined.*

1. Bolch WE, Turner JE, Yoshida H, Jacobson KB, Hamm RN, and Wright HA, "Monte Carlo Simulation of Indirect Radiation Damage to Biomolecules Irradiated in Aqueous Solution", 10th Symposium on Microdosimetry, Rome, Italy, May 21-26, 1989.
2. Liu JC^G, Akabani G^G, Bolch WE, and JW Poston, Sr., "Calculations of scaled dose kernels for electrons in tissue," Fifth International Radiopharmaceutical Dosimetry Symposium, Oak Ridge, Tennessee, May 7-10, 1991.
3. Bolch WE and Kim EH^G, "Calculations of Electron Single-Event Distributions for Use in Internal Beta Microdosimetry," 11th Symposium on Microdosimetry, Gatlinburg, Tennessee, September 13-18, 1992.
4. Bolch WE, Costes S^G, Bouchet LG^G, Wessels BW, Siegel JA, and Robertson JS, "Cubical S values for the rapid assessment of suborgan dosimetry for nonuniform activity distributions," 6th International Symposium on Radiopharmaceutical Dosimetry, Gatlinburg, Tennessee, May 6-10, 1996.
5. Bolch WE and Jones CR, "Viability of the United States Academic Community in Support of Nuclear Energy", International Workshop on Infrastructure for Nuclear Energy Deployment, OECD Nuclear Energy Agency, Paris, France, June 10-11, 1996. **[Invited Presentation]**
6. Bolch WE, Blanco P^G, Bouchet LG^G, and Rajon D^G, "Electron Absorbed Fractions for Use in Pediatric Medical Internal Dosimetry", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
7. Bolch WE, Bouchet LG^G, Aydogan B^G, Wessels BW, and Siegel JA, "Voxel S Values for Use in Dosimetry for Nonuniform Activity Distributions", World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997.
8. Bolch WE "Skeletal Dosimetry Through NMR Microscopy", 2nd International Workshop on Anatomic Models, Oak Ridge, Tennessee, September 28-30, 1999. **[Invited Presentation]**
9. Bolch WE "Anatomic Models: The MIRD Perspective", 2nd International Workshop on Anatomic Models, Oak Ridge, Tennessee, September 28-30, 1999. **[Invited Presentation]**
10. Pomije BD^G, Huh C^G, Sessions J^G, Caridi T, Williams JL, and Bolch WE "Radiation Dosimetry of Newborn Patients in Diagnostic Fluoroscopy: Voiding Cystourethrograms (VCUGs)", World Congress on Medical Physics and Biomedical Engineering, Chicago, Illinois, July 23-38, 2000. [Supplement to *Med. Phys.* **27** (6) 1444, June 2000]
11. Rajon DA^G, Jokisch DW^G, Patton PW^G, Shah AP^G, and Bolch WE, "3D NMR Microscopy in Skeletal Dosimetry: A Study of Voxel Size Effects on Dose Estimates", World Congress on Medical Physics and Biomedical Engineering, Chicago, Illinois, July 23-38, 2000. [Supplement to *Med. Phys.* **27** (6) 1432, June 2000]
12. Bolch WE, Patton PW^G, Shah AP^G, Rajon DA^G, and Jokisch DW^A. "An assessment of anthropometric parameters for scaling radiation dose estimates to active marrow", 7th International Radiopharmaceutical Dosimetry Symposium, Nashville, Tennessee, April 17-19, 2002.
13. Bolch WE, Shah AP^G, Brindle J^G, Patton PA^G, Jokisch DW^A, and Sgouros G, "A reference skeletal dosimetry model of the adult male radionuclide therapy patient based on 3D microimaging and radiation transport", 2004 Annual Meeting of the European Association of Nuclear Medicine, 1st International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry", Helsinki, Finland, September 4-8, 2004.
14. Lee C^G, Lee C^P, Lodwick DL^G, and Bolch WE, "NURBS-based 3D anthropomorphic computational phantoms for radiation dosimetry applications" 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
15. Bolch WE, Shah AP^G, Watchman CJ^G, Jokisch DW^A, Patton PA^G, Rajon DA^A, Zankl M, Petoussi-Henss N, and Eckerman KF, "Skeletal absorbed fractions for electrons in the adult male – considerations of a revised 50- μ m definition of the bone endosteum", 6th International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006. **[Invited presentation]**

16. Bolch WE, Lee CP, Pafundi DG, and Padilla LG, “Anatomic models of the lymphatic nodes within the UF adult and pediatric hybrid phantoms – Applications to lymphoma patient dosimetry”, 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].
17. C LeeP, D LodwickG, J HurtadoG, D PafundiG, and WE Bolch, “Development of a series of hybrid computational phantoms and their applications to assessment of photon and electron specific absorbed fractions”, 2008 Annual Meeting of the European Association of Nuclear Medicine, Munich, Germany, October 11-15, 2008. [Supplement to *Eur J Nucl Med* **35** (2) S202, 2008].
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 Reference 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. [\[Invited Session Speaker\]](#).

49. Bolch WE, "MIRDsoft – a comprehensive resource for patient dosimetry tools in nuclear medicine and computed tomography imaging", 4th International Symposium on Clinical Medical Physics, Universidad Autonoma Metropolitana – Iztapalapa Ciudad de Mexico, November 7, 2022. [\[Invited Plenary Speaker\]](#).

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 Rao D. "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 IP, 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-Henss 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-Henss N, Bolch WE, Lee C, and Chung BS, "Modeling target region of the alimentary trace 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, Petoussi-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 ¹⁸F¹⁸FDG 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^G](#), Domal S^G, Withrow J^U, Abdulla M^U, 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.

66. Correa-Alfonso C^G, Withrow J^U, Domal S^G, McCullum L, Beekman C, Grassberger C, Paganetti H, and Bolch WE, “A mesh-based model of brain vasculature: Improved internal dosimetry to brain parenchyma for radiopharmaceuticals”, 2022 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 15-19, 2022.
67. Griffin K, Paulbeck C^A, Sato T, Funamoto S, Domal S^A, Correa C^A, Cullings H, Egbert S, Endo A, Hertel N, Bolch WE, and Lee C^A, “Groundwork for a revision of radiation exposure assessments for the Japanese atomic bomb survivors”, 2023 Annual Meeting of the International Society of Radiation Epidemiology and Dosimetry, Sitges, Spain, May 16-18, 2023.
68. Smither WW^G, Applegate KE, Bolch WE, Borrego D^A, Marshall EL^A, “Establishing dose coefficients for common pediatric diagnostic fluoroscopic examinations in support of ICRP TG 113: Updates from ICRP Task Group 113”, 2023 Annual Meeting of the International Society of Radiation Epidemiology and Dosimetry, Sitges, Spain, May 16-18, 2023.
69. Dawson R^G, Baggett J^G, Dinwiddie L^G, Smither W^G, Wang Y^G, Wehmeier S^G, Tran T^A, Domal S^A, Kofler C^A, Choi C^P, Yeom Y, Carter L, Ocampo-Ramos J, Zanzonico P, Kesner A, Bolch WE, “The UF/MSK polygon mesh-type phantom libraries for medical dosimetry”, 7th International Symposium on the System of Radiological Protection, ICRP 2023, Tokyo, Japan, November 6-9, 2023.
70. Choi C^P, Wang Y^G, Dawson R^{J^G}, Shin B, Bolch WE, “Mesh-based skeletal models: Advanced skeletal dosimetry for the ICRP Reference Adults”, 7th International Symposium on the System of Radiological Protection, ICRP 2023, Tokyo, Japan, November 6-9, 2023.
71. Smither WW^G, Applegate KE, Bolch WE, Borrego D, Marshall EL, “Establishing dose coefficients for common paediatric diagnostic fluoroscopic examinations in support of ICRP Task Group 113: Updates from the Task Group”, 7th International Symposium on the System of Radiological Protection, ICRP 2023, Tokyo, Japan, November 6-9, 2023.
72. Colon-Ortiz CG^G, Dawson R^{J^G}, and Bolch WE, “A macroscale model of the adult human kidney with arterial and venous cortical and medullary vasculature for applications in radiopharmaceutical dosimetry”, 7th International Symposium on the System of Radiological Protection, ICRP 2023, Tokyo, Japan, November 6-9, 2023.
73. Wehmeier S^G, Baggett J^G, Dawson R^G, Dinwiddie L^G, Wang Y^G, Kofler C^A, Carter L, Ocampo-Ramos J^C, Kesner A, Bolch WE, “Computed tomography dosimetry for newborn, infant, and toddler computational phantoms”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
74. Withrow J^{D^G}, Pathak S^{P^U}, Beekman C, Dawson R^{J^G}, Correa-Alfonso C^{M^A}, Domal S^{J^A}, Paganetti H, Bolch WE, “Heart and lung vascular models within the adult mesh-type computational reference phantoms for applications to blood dose tracking”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
75. Sforza A^{R^G}, Dawson R^{J^G}, Dillon K^D, Withrow J^{D^G}, Carrasco-Rojas N^{E^G}, Paganetti H, Bolch WE, McFetridge P^S, “A vascular model within the mouse whole-body phantom for blood radiation dosimetry”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
76. Carrasco-Rojas N^G, Dawson R^{J^G}, Strecker N^{A^U}, Bolch WE, “Development and application of the MOBY and ROBY mesh-type phantoms for radiopharmaceutical dosimetry” 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
77. Dinwiddie L^G, Baggett J^G, Wehmeier S^G, Dawson R^G, Wang Y^G, Smither W^G, Carter L, Ocampo-Ramos J^C, Kesner A, Bolch WE, “Survey of CT DIvol data across major CT scanner vendors for computational dosimetry implementation”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
78. Wang Y^G, Choi C^P, Dawson R^{J^G}, Shin B^P, Bolch WE, “Skeletal S values for a series of non-reference bone dosimetry models and their comparisons to reference dosimetry”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
79. President B^G, Wang Y^G, Marlin E^U, Aris J, Bolch WE, “3D reconstruction of lung tissue from iodine-stained histology slides”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
80. President B^G, Dozic A^V, Bolden R, Ellis L, Sforza A, Haneberg G, Bushloper M, Aris J, Bolch WE, “Dosimetry evaluation for seven histology-based 3D models of the renal cortical labyrinth for alpha-emitter

radiopharmaceutical therapy, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.

81. Smither WW^G, Applegate KE, Bolch WE, Marshall EL^A, Borrego DA, “Establishing dose coefficients for common paediatric diagnostic fluoroscopic examinations in support of ICRP Task Group 113”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
82. Smither WW^G, Dawson RJ^G, Choi C^P, Wang Y^G, Bolch WE, “Development of military computational phantom-specific radionuclide S-values and detector count rate efficiencies for in-field radiological contamination triage”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
83. Bushloper M^G, Bradley J, Dawson R, Liang X, Manuel MV, Murray J, Bolch WE, “A novel breast tissue expander for optimized imaging and radiotherapy of post-mastectomy cancer patients”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
84. Fuentes-Alfonso L^U, Dawson R^G, Colon-Ortiz C^G, Withrow J^G, Pathak S^U, “Mesh-based models of breast vasculature and glandular tissues for internal dosimetry”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
85. Pathak SP^U, Withrow JD^G, Bolch WE, “Refined models of inter-organ vasculature within the adult mesh-type reference computational phantoms for applications to internal dosimetry”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
86. Baggett J^G and Bolch WE, “Implementation and dose evaluation of tumor volumes in adult and pediatric mesh-based computational phantoms”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.
87. Colon-Ortiz C^G, Dawson R^G, Dozic A^U, Aris JP, Bolch WE, “A macroscale model of the adult human kidney with arterial and venous vasculature for applications in radiopharmaceutical dosimetry”, 16th Meeting of the International Radiation Protection Association (IRPA 16), Orlando, Florida, July 7-12, 2024.

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, Sjögreen-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.
 45. **Bolch WE**, "Estimation of Patient Skin Dose in Fluoroscopy: Summary of a Joint Report by AAPM TG357 and EFOMP", 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* **49**:4189 (2022)].
 46. **Bolch WE**, "Second Primary Cancers Following Radiotherapy (SPCaRT) – Review of the Ongoing Work of UNSCEAR", Oak Ridge National Laboratory (ORNL), Incident Modeling and Computational Sciences (IMCS) Group, January 26, 2026.

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. JR 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 MIRD 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].
 53. LG Bouchet*, WE Bolch, RW Howell, and DV Rao, “Selection of Radionuclides for Palliation of Bone Pain from Metastatic Osseous Lesions”, 45th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 7-11, 1998. [Supplement to *J. Nucl. Med.* **39** (5) 84P, 1998].
 54. RA Reyes*, WE Bolch, LG Bouchet*, and K Hintenlang, “Organ Doses for Children Undergoing Diagnostic X-Ray Procedures”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S36, 1998].
 55. P Blanco*, LG Bouchet*, D Rajon*, and WE Bolch, “A New Mathematical Model of the Kidney for Use in Suborgan Dosimetry”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S38, 1998].
 56. LG Bouchet*, WE Bolch, RW Howell, and DV Rao, “A New Three-Dimensional Dosimetric Model of Trabecular Bone”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S13, 1998].
 57. PW Patton*, DW Jokisch*, LG Bouchet*, DA Rajon*, and WE Bolch, “Assessment of Potential Changes to the Microarchitecture of Trabecular Bone Under Sample Freezing and Thawing”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S38, 1998].
 58. BJ Morabito*, RD Ice, WE Bolch, and RD Schinazi, “The Role of DNA Topology in Strand Breaks and Computer Modeling”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S31, 1998].
 59. DW Jokisch*, PW Patton*, LG Bouchet*, DA Rajon*, and WE Bolch, “Methods for Characterizing the Geometry of Trabecular Regions of the Skeleton for Use in Internal Dosimetry”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S39, 1998].
 60. BD Pomije*, MA Tressler*, WE Bolch, and DE Hintenlang, “Comparison of Angular Free-in-Air and Tissue-Equivalent Phantom Response Measurements in p-MOSFET Dosimeters”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S39, 1998].
 61. V Sehgal*, DA Rajon*, LG Bouchet*, and WE Bolch, “Effects of Atherosclerotic Plaque Composition on the 3D Dose Distribution from a P-32 Radioactive Stent”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S39, 1998].
 62. DA Rajon*, P Blanco*, L Bouchet*, and WE Bolch, “Electron Deposited Doses in New Mathematical Models for Internal Dosimetry”, 43rd Annual meeting of the Health Physics Society, Minneapolis, Minnesota, July 12-16, 1998. [Supplement to *Health Phys.* **74** (6) S42, 1998].
 63. DT Marshall, WE Bolch, WA Tome, and JM Buatti, “Redefining Dose - A Monte Carlo-Based Microdosimetry System to Quantify the Radiobiological Impact of Variations in the Tumor Microenvironment”, 40th Annual Meeting of the American Society for Therapeutic Radiology and Oncology, Phoenix, Arizona, October 25-20, 1998.
 64. A Bishayee, RW Howell, S Srivastava, LG Bouchet*, WE Bolch, and DV Rao, “Marrow Sparing Effects of Sn-117m-DTPA for Palliation of Bone Pain”, 46th Annual Meeting of the Society of Nuclear Medicine, Los Angeles, California, June 6-10, 1999. [Supplement to *J. Nucl. Med.* **40** (5) 219P (1999)].
 65. B Aydogan*, WE Bolch, BJ Morabito*, DT Marshall, and KE Wilson*, “Predicting Radiation Damage at the Molecular Level with Applications to Radiation Therapy”, 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S192, 1999].
 66. V Sehgal*, K Hintenlang, and WE Bolch, “Radiation Safety Issues Associated with Intravascular Brachytherapy Clinical Trials”, 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S191, 1999].
 67. BD Pomije*, CH Huh*, JB Sessions*, and WE Bolch, “Transformation of a Pediatric Dynamic Fluoroscopy Study into a Series of Static Projections for use in Organ Dose Reconstruction”, 44th Annual Meeting of the Health

- Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S190, 1999].
68. LG Bouchet* and WE Bolch, "New Estimates of Specific Effective Energy for Use in Skeletal Dosimetry", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S161-S162, 1999].
 69. DW Jokisch*, PW Patton*, LG Bouchet*, and WE Bolch, "Monte Carlo Electron Transport within Voxels from a Three-Dimensional Image of Human Trabecular Bone", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S161, 1999].
 70. DA Rajon*, DW Jokisch*, PW Patton*, LG Bouchet*, and WE Bolch, "Assessment of Minimum Voxel Size for Trabecular Bone NMR Imaging for Dosimetry Calculations", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S161, 1999].
 71. E Farfan* and WE Bolch, "Probabilistic Lung Dosimetry with Application to Uranium Dioxide and Oxtoxide", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S121, 1999].
 72. PW Patton*, DW Jokisch*, DA Rajon*, EJ Eschbach, DL Wheeler, SL Myers, and WE Bolch, "Comparison of Trabecular Chord Length Distributions Obtained from Nuclear Magnetic Resonance Imaging and Optical Microscopy", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999 [Supplement to *Health Phys.* **76** (6) S120, 1999].
 73. BJ Morabito*, WE Bolch, DT Marshall, B Aydogan*, and KE Wilson*, "Radiation-Induced Breaks in Plasmid DNA", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S114, 1999].
 74. CH Huh*, BD Pomije*, WE Bolch, MA Tressler, and DE Hintenlang, "Characterization of the Angular Dependence of p-MOSFET Dosimeters for Lung, Soft, and Skeletal Tissue-Equivalent Phantoms in the Diagnostic Energy Range", 44th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania, June 27 - July 1, 1999. [Supplement to *Health Phys.* **76** (6) S111, 1999].
 75. B Aydogan*, WE Bolch, DT Marshall, BJ Morabito* and KE Wilson*, "A New Model for Near-Approach Attack to DNA by Free Radicals", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S128 (2000)].
 76. BJ Morabito*, WE Bolch, DT Marshall, B Aydogan*, and KE Wilson*, "The Effects of Beam Quality on Radiation-Induced DNA Breaks", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S133 (2000)].
 77. E Farfan*, CH Huh*, TE Huston, WE Bolch, "ICRP-66 Respiratory Tract Model: Uncertainties in the Deposition Model", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S98 (2000)].
 78. CH Huh*, E Farfan*, TE Huston, WE Bolch, "ICRP-66 Respiratory Tract Model: Uncertainties in the Clearance Model", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S98 (2000)].
 79. DW Jokisch, PW Patton*, DA Rajon*, A Shah*, and WE Bolch, "The Effects Of The Bone-Marrow Interface In Trabecular Bone Dosimetry of Beta-Particles Utilizing Voxel-Based Transport", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S121 (2000)].
 80. PW Patton*, DW Jokisch, DA Rajon*, A Shah*, and WE Bolch, "Introduction of Marrow Cellularity in 3D Electron Simulations in Trabecular Bone", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S98 (2000)].
 81. DA Rajon*, PW Patton*, A Shah*, WE Bolch, "Surface Error Effects of 3D NMR Images on Monte Carlo Trabecular Bone Dosimetry Calculations", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S121 (2000)].
 82. AP Shah*, PW Patton*, DW Jokisch, DA Rajon*, and WE Bolch, "Geometrical Distribution of Adipocytes within Normal Bone Marrow: Considerations for 3D Skeletal Dosimetry Models", 45th Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S100 (2000)].
 83. B Aydogan*, DT Marshall, SG Swarts, JE Turner, B Morabito*, and WE Bolch, "Consideration of Steric Hindrance in Monte Carlo Modeling of OH Radical Attack on DNA", 48th Annual Meeting of the Radiation Research Society, San Juan, Puerto Rico, April 21-25, 2001.

84. I Gardin, J Caron, A Lisbona, M Bardies, LG Bouchet, WE Bolch and P Vera, "Validation of the 3d dosimetric computer program VoxelDose", 48th Annual Meeting of the Society of Nuclear Medicine, Toronto, Ontario, Canada, June 23-27, 2001. [Supplement to *J. Nucl. Med.* **42** 244P (2001)]
85. MG Stabin, KF Eckerman, WE Bolch, and LG Bouchet, "Consensus bone and marrow model for internal dose assessment", 48th Annual Meeting of the Society of Nuclear Medicine, Toronto, Ontario, Canada, June 23-27, 2001. [Supplement to *J. Nucl. Med.* **42** 244P (2001)]
86. BW Wessels, WE Bolch, HB Breitz, RF Meredith, RM Sharkey, and GL Denardo, "Bone marrow dosimetry for radionuclide therapy – A multi-institutional comparison", 48th Annual Meeting of the Society of Nuclear Medicine, Toronto, Ontario, Canada, June 23-27, 2001. [Supplement to *J. Nucl. Med.* **42** 22P (2001)]
87. E Farfan*, CH Huh*, TE Huston, and WE Bolch, "ICRP-66 respiratory tract model: uncertainties in the dosimetry model", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S106 (2001)].
88. CH Huh*, E Farfan*, TE Huston, and WE Bolch, "ICRP-66 respiratory tract model: a parameter sensitivity analysis", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S106 (2001)].
89. DA Rajon*, DW Jokisch, PW Patton*, AP Shah*, CJ Watchman*, and WE Bolch, "Chord length distribution measurements through 3D NMR images of trabecular bone samples", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S127 (2001)]
90. JB Sessions*, FD Pazik*, MM Arreola, JL Williams, LG Bouchet, and WE Bolch, "A method of recording and analyzing pediatric fluoroscopy procedures for the determination of individual organ doses", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S122 (2001)].
91. AP Shah*, PW Patton*, DA Rajon*, and WE Bolch, "Geometrical variations in adipocyte distribution for skeletal dosimetry models: considerations for 3D electron simulations", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S127 (2001)].
92. CJ Watchman*, DK Vo*, DA Rajon*, AP Shah*, and WE Bolch, "Calculation of heavy charged particle absorbed fractions in trabecular bone", 46th Annual Meeting of the Health Physics Society, Cleveland, Ohio, June 10-14, 2001. [Supplement to *Health Phys.* **80** (6) S126 (2001)].
93. PW Patton, DA Rajon*, DW Jokisch, AP Shah*, and WE Bolch, "Trabecular bone dosimetry: the role of marrow cellularity and bone site variations", 43rd Annual Meeting of the American Association for Physicists in Medicine, July 22-26, 2001 Salt Lake City, Utah. [Supplement to *Medical Phys.* **28** (6) 1288 (2001)].
94. DT Marshall, B Aydogan, SG Swarts, JE Turner, AJ Boone, NG Richards, and WE Bolch, "Site-specific OH attack to the base moiety of DNA", 2002 Annual Meeting of the Radiation Research Society, April 20-24, 2002, Reno, Nevada.
95. EH Donnelly, EB Farfán*, CW Miller, and WE Bolch, "Comparison of thyroid dose estimates to native Americans from Hanford releases to the air using reference versus tribal-specific diets", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S120 (2002)].
96. EB Farfán*, TE Huston, WE Bolch, EY Han*, DA Rajon*, and WE Bolch, "Uncertainties in electron absorbed fractions within the ICRP-66 respiratory tract model", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S126 (2002)].
97. EB Farfán*, TE Huston, WE Bolch, KP Kim*, EY Han*, and WE Bolch, "Beta-particle dosimetry within the ICRP-66 respiratory tract model: impact of uncertainties in electron absorbed fractions on lung dose estimates", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S126 (2002)].
98. EY Han*, EB Farfán*, WE Bolch, TE Huston, and WE Bolch, "A revised dosimetry model of the extrathoracic and thoracic airways", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002. [Supplement to *Health Phys.* **82** (6) S127 (2002)].
99. CH Huh*, MS Bhutani, WE Bolch, E Farfán*, E Bolch, "Individual variations in mucosa and total wall thickness within the stomach and rectum assessed via endoscopic ultrasound", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S127 (2002)].
100. DA Rajon*, AP Shah*, CJ Watchman*, JM Brindle*, and WE Bolch, "Chord length distribution measurements through polygonal representations of trabecular bone samples", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S128 (2002)].

101. FD Pazik*, JB Sessions*, M Arreola, JL Williams, and WE Bolch, "A method for determination of organ doses for pediatric fluoroscopy studies", 2002 Annual Meeting of the Health Physics Society, Tampa, Florida, June 16-20, 2002 [Supplement to *Health Phys.* **82** (6) S131 (2002)].
102. JC Nipper*, JL Williams, R Staton*, and WE Bolch, "Creation of two tomographic computational phantoms of pediatric patients within the first year of life", 2002 Annual Meeting of the American Association of Medical Physicists, Montreal, Canada, July 14-18, 2002.
103. A Jones*, F Pazik*, D Hintenlang, and W Bolch, "Characterization of high-sensitivity isotropic p-MOSFET dosimeters and a new tissue-equivalent plastic for use in pediatric anthropomorphic phantoms", 2002 Annual Meeting of the American Association of Medical Physicists, Montreal, Canada, July 14-18, 2002.
104. D Rajon*, A Shah*, C Watchman*, J Brindle*, and W Bolch, "Polygonal representation of trabecular bone samples for chord length distribution measurements", 2002 Annual Meeting of the American Association of Medical Physicists, Montreal, Canada, July 14-18, 2002.
105. KP Kim*, W Bolch, E Bolch, CY Wu, and B Birky, "Assessment of the internal exposure to aerosol containing technologically enhanced naturally occurring radioactive materials (TENORM) in the phosphate industry", 2002 Annual Meeting of the American Association for Aerosol Research, Charlotte, North Carolina, October 7-11, 2002.
106. KP Kim*, W Bolch, E Bolch, CY Wu, W Nall, and B Birky, "Risk assessment of airborne particulates to workers in the phosphate industry", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S170-171 (2003)].
107. EB Farfan, TE Huston, WE Bolch, E Han, K Behary, ZM Jupiter, "Influence of age, gender, and exertion level on dose uncertainty associated with inhalation of weapons-grade plutonium oxide", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S171 (2003)].
108. C Huh*, WE Bolch, MS Bhutani, and E Bolch, "Influences in mucosa wall thickness variations on the dosimetry of the stomach and rectum", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S171 (2003)].
109. AK Jones*, DE Hintenlang, and WE Bolch, "Development of new tissue-equivalent materials for use in a series of pediatric anthropomorphic phantoms", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S177 (2003)].
110. CJ Watchman*, AP Shah*, JM Brindle*, DA Rajon, and WE Bolch "A 3D chord length based model of alpha particle dosimetry in bone marrow", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S197-198 (2003)].
111. EY Han* and WE Bolch, "Revisions to the ORNL series of stylized mathematical models of the human body", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S198 (2003)].
112. RJ Staton*, FD Pazik*, JC Nipper, JL Williams, and WE Bolch, "A comparison of newborn stylized and tomographic models for dose assessment in pediatric radiology", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S258-259 (2003)].
113. C Lee* and WE Bolch, "Construction of a tomographic computational model of a 9-month-old and its Monte Carlo calculation time comparison between the MCNP-4C and MCNP-X codes", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S259 (2003)].
114. JM Brindle*, AP Shah*, CJ Watchman*, DA Rajon, and WE Bolch, "S-value scaling using spongiosa volumes to improve patient-specific dosimetry", 2003 Annual Meeting of the Health Physics Society, San Diego, California, July 20-24, 2003. [Supplement to *Health Phys.* **84** (6) S260 (2003)].
115. AP Shah*, DA Rajon*, PW Patton*, RW Howell, WE Bolch, "Skeletal dosimetry: establishment of dose gradients for cellular components across the marrow cavity", 2003 Annual Meeting of the American Association for Physicists in Medicine, San Diego, California, August 10-14, 2003. [Supplement of *Medical Phys.* **30** (6): 1400 (2003)].
116. KP Kim*, WE Bolch, E Bolch, CY Wu, W Nall, and B Birky, "Dose assessment due to inhalation of TENORM containing particles in the phosphate industry", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys.* **86** (6): S130 (2004)].

117. EY Han* and WE Bolch, "Electron and photon absorbed fractions for the revised pediatric mathematical model for internal dosimetry studies", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys* **86** (6): S145 (2004)].
118. EB Farfan*, TR LaBone, SP LaMont and WE Bolch, "Probabilistic tests of current ICRP models for the behavior of inhaled $^{238}\text{PuO}_2$ using autopsy data from USTUR Case 0259", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys* **86** (6): S146 (2004)].
119. TP Moore, DW Jokisch*, PW Patton*, J Brindle*, AP Shah*, and WE Bolch, "Reproducibility of manual segmentation applied to computed tomography images of trabecular skeletal sites", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys* **86** (6): S150 (2004)].
120. C Lee* and WE Bolch, "The UF series of tomographic anatomic models of pediatric patients", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys* **86** (6): S151 (2004)].
121. AK Jones*, TA Simon, MM Holman, DE Hintenlang, and WE Bolch, "A tomographic anthropomorphic newborn phantom for diagnostic dosimetry in pediatric radiology", 2004 Annual Meeting of the Health Physics Society, Washington, DC, July 11-15, 2004. [Supplement to *Health Phys* **86** (6): S215 (2004)].
122. EY Han* and WE Bolch, "Influences of elemental composition of body tissues on photon absorbed fractions for nuclear medicine dosimetry", 2004 Annual Meeting of the American Association of Physicists in Medicine, Pittsburgh, Pennsylvania, July 25-29, 2004. [Supplement to *Med Phys* **31** (6): 1757 (2004)].
123. RJ Staton* and WE Bolch, "Implementation of a newborn tomography computational model for dose assessment in pediatric radiology", 2004 Annual Meeting of the American Association of Physicists in Medicine, Pittsburgh, Pennsylvania, July 25-29, 2004. [Supplement to *Med Phys* **31** (6): 1757 (2004)].
124. CW Watchman* and WE Bolch, "Absorbed fractions for skeletal dosimetry of alpha particles", 2004 Annual Meeting of the American Association of Physicists in Medicine, Pittsburgh, Pennsylvania, July 25-29, 2004. [Supplement to *Med Phys* **31** (6): 1756-1757 (2004)].
125. AK Jones*, T Simon*, M Holman*, DE Hintenlang, and WE Bolch, "A tomographic anthropomorphic newborn phantom for diagnostic dosimetry in pediatric radiology", 2004 Annual Meeting of the American Association of Physicists in Medicine, Pittsburgh, Pennsylvania, July 25-29, 2004. [Supplement to *Med Phys* **31** (6): 1842 (2004)].
126. B Aydogan, WE Bolch, S Swarts, JE Turner, and D Marshall, "Computational modeling of radiation interactions and chemistry with a 167-base pair segment of DNA and comparison with experimental results", 2004 Annual Meeting of the American Association of Physicists in Medicine, Pittsburgh, Pennsylvania, July 25-29, 2004. [Supplement to *Med Phys* **31** (6): 1874 (2004)].
127. JM Brindle*, AP Shah, SL Myers, and WE Bolch, "Spongiosa volume scaling factors for use in estimating patient-specific bone marrow mass" 2005 Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 19-22, 2005. [Supplement to *J Nucl Med* **46** (5): 341 (2005)].
128. CJ Watchman*, and WE Bolch, "Age and individual variability of absorbed fractions for alpha particle emissions in the tissues of trabeculae bone" 2005 Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 19-22, 2005. [Supplement to *J Nucl Med* **46** (5): 341-342 (2005)].
129. KP Kim*, WE Bolch, CY Wu, and BK Birky, "In-vitro dissolution rates of radionuclides in aerosol particles from the Florida phosphate industry", 2005 Annual Meeting of the Health Physics Society, Spokane, Washington, July 10-14, 2005. [Supplement to *Health Phys* **89** (1): S12 (2005)].
130. KN Kielar*, D Hasenauer*, AP Shah*, and WE Bolch, "A skeletal reference dosimetry model for the adult female", 2005 Annual Meeting of the Health Physics Society, Spokane, Washington, July 10-14, 2005. [Supplement to *Health Phys* **89** (1): S20 (2005)].
131. D Hasenauer*, CW Watchman*, AP Shah*, and WE Bolch, "Skeletal reference models for pediatric patients", 2005 Annual Meeting of the Health Physics Society, Spokane, Washington, July 10-14, 2005. [Supplement to *Health Phys* **89** (1): S56 (2005)].
132. B Aydogan, WE Bolch, SG Swarts, JE Turner, and DT Marshall, "A Monte Carlo model to simulate single and double strand breaks in DNA molecules", 2005 Annual Meeting of the American Association of Physicists in Medicine, Seattle, Washington, July 24-28, 2005. [Supplement to *Med Phys* **32** (6): 2010 (2005)].
133. C Lee*, JL Williams, and WE Bolch, "The UF series of tomographic anatomic models of pediatric patients", 2005 Annual Meeting of the American Association of Physicists in Medicine, Seattle, Washington, July 24-28, 2005. [Supplement to *Med Phys* **32** (6): 2100 (2005)].

134. C Lee*, C Lee*, and WE Bolch, "Bone marrow and bone endosteum dosimetry methods for external photons" 2005 Annual Meeting of the American Association of Physicists in Medicine, Seattle, Washington, July 24-28, 2005. [Supplement to *Med Phys* **32** (6): 2101 (2005)].
135. RJ Staton*, AK Jones, and WE Bolch. "Point-to-organ dose scaling factors for use in pediatric radiology", 2005 Annual Meeting of the American Association of Physicists in Medicine, Seattle, Washington, July 24-28, 2005. [Supplement to *Med Phys* **32** (6): 2101 (2005)].
136. CJ Watchman*, VA Bourke*, AE Knowlton, SL Butler, DD Grier, and WE Bolch, "Spatial distribution of CD34+ hematopoietic cells and blood vessels in marrow cavities: applications to dosimetry", 2006 Annual Meeting of the Society of Nuclear Medicine, San Diego, California, June 3-7, 2006. [Supplement to *J Nucl Med* **47** (5) 31P (2006)].
137. G Sgouros, WE Bolch, CJ Watchman*, J Jurcic, DA Scheinberg, "Relative biological effectiveness (RBE) of the alpha-particle emitter ^{213}Bi versus ^{90}Y for hematologic toxicity and efficacy in patients with leukemia", 2006 Annual Meeting of the Society of Nuclear Medicine, San Diego, California, June 3-7, 2006. [Supplement to *J Nucl Med* **47** (5) 219P (2006)].
138. C Lee*, C Lee, and WE Bolch, "Comparison of effective doses from pediatric stylized and tomographic phantoms for external photon beams" 2006 Annual Meeting of the Health Physics Society, Providence, Rhode Island, June 25-29, 2006. [Supplement to *Health Phys* **91** (1): S86 (2006)].
139. KP Kim*, C Wu, BK Birky, and WE Bolch, "Assessment of annual effective dose to workers in the Florida phosphate industry via characterization of lung fluid solubility", 2006 Annual Meeting of the Health Physics Society, Providence, Rhode Island, June 25-29, 2006. [Supplement to *Health Phys* **91** (1): S92 (2006)].
140. MC Hough*, JM Brindle*, and WE Bolch, "Estimates of total skeletal spongiosa volume for patient-specific scaling of radionuclide S values" 2006 Annual Meeting of the Health Physics Society, Providence, Rhode Island, June 25-29, 2006. [Supplement to *Health Phys* **91** (1): S139 (2006)].
141. K Kielar*, AP Shah, and WE Bolch, "A skeletal reference dosimetry model for the adult female", 2006 Annual Meeting of the Health Physics Society, Providence, Rhode Island, June 25-29, 2006. [Supplement to *Health Phys* **91** (1): S140 (2006)].
142. D Hasenauer*, C Watchman, A Shah, and WE Bolch, "An image-based skeletal dosimetry model for the pediatric male", 2006 Annual Meeting of the Health Physics Society, Providence, Rhode Island, June 25-29, 2006. [Supplement to *Health Phys* **91** (1): S140 (2006)].
143. C Lee*, C Lee*, D Lodwick*, and WE Bolch, "A series of 4D pediatric hybrid phantoms developed from the UF series B tomographic phantoms" 2006 Annual Meeting of the American Association of Physicists in Medicine, Orlando, Florida, July 30 - August 3, 2006. [Supplement to *Med Phys* **33** (6): 2006 (2006)].
144. C Lee*, C Lee*, and WE Bolch, "Photon and electron specific absorbed fractions from the UF pediatric tomographic phantoms" 2006 Annual Meeting of the American Association of Physicists in Medicine, Orlando, Florida, July 30 - August 3, 2006. [Supplement to *Med Phys* **33** (6): 2014 (2006)].
145. C Zacharatou-Juriskog, C Lee*, H Jiang, WE Bolch, X. Xu, H Paganetti, "Monte Carlo simulation using whole-body pediatric and adult phantoms as virtual patients to assess secondary organ doses in proton radiation therapy" 2006 Annual Meeting of the American Association of Physicists in Medicine, Orlando, Florida, July 30 - August 3, 2006. [Supplement to *Med Phys* **33** (6): 2123 (2006)].
146. C Lee*, C Lee*, and WE Bolch, "Monte Carlo calculations of the organ and effective doses for pediatric patients under helical CT exams", 2006 Annual Meeting of the American Association of Physicists in Medicine, Orlando, Florida, July 30 - August 3, 2006. [Supplement to *Med Phys* **33** (6): 2210 (2006)].
147. RJ Milner, L Padilla*, C Lee*, C Batich, A Shahlaee, J Farese, and WE Bolch, "An image-based skeletal canine model for pre-clinical evaluations of osteosarcoma molecular radiotherapy" 2006 Annual Conference of the Veterinary Cancer Society, Pine Mountain, GA, October 19-22, 2006.
148. G Sgouros, WE Bolch, AP Shah*, CJ Watchman*, JG Jurcic, and DA Scheinburg, "Relative biological effectiveness for efficacy and toxicity in leukemia patients of the alpha-emitter Bi-213", 11th Conference on Cancer Therapy with Antibodies and Immunoconjugates, Parsippany, New Jersey, October 12-14, 2006.
149. C Lee*, D Lodwick*, and WE Bolch, "Internal dosimetry calculations from newborn hybrid computational phantoms having ICRP reference anatomy", 2007 Annual Meeting of the Society of Nuclear Medicine, Washington, DC, June 3-6, 2007 [Supplement to *J Nucl Med* **48** (6) 135P (2007)].
150. VA Bourke*, CJ Watchman, M Jorgensen, A Dieudonne*, and WE Bolch, "Spatial distribution of CD117+ hematopoietic stem cells within the marrow cavities of human cancellous bone", 2007 Annual Meeting of

the Society of Nuclear Medicine, Washington, DC, June 3-6, 2007 [Supplement to *J Nucl Med* **48** (6) 295P (2007)].

151. KN Kielar*, AP Shah, and WE Bolch, "A skeletal dosimetry model for the adult female", 2007 Annual Meeting of the Society of Nuclear Medicine, Washington, DC, June 3-6, 2007 [Supplement to *J Nucl Med* **48** (6) 297P (2007)].
152. IC Pichardo*, AA Trindade, and WE Bolch, "Sex-specific regression models for predicting patient total skeletal spongiosa volume for use in radionuclide therapy dosimetry", 2007 Annual Meeting of the Society of Nuclear Medicine, Washington, DC, June 3-6, 2007 [Supplement to *J Nucl Med* **48** (6) 297P (2007)].
153. AB Dieudonne*, WE Bolch, and I Gardin, "3D internal dosimetry for radioimmunotherapy using a voxel S value approach", 2007 Annual Meeting of the Society of Nuclear Medicine, Washington, DC, June 3-6, 2007 [Supplement to *J Nucl Med* **48** (6) 299P (2007)].
154. C Lee*, D Lodwick*, D Hasenauer*, and WE Bolch, "Effect of pediatric subcutaneous fat thickness on effective dose for external radiation exposure: A Monte Carlo calculational study", 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S41 (2007)].
155. KN Kielar*, AP Shah, and WE Bolch, "A skeletal reference dosimetry model for the adult female", 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S46 (2007)].
156. M Hough*, and WE Bolch, "A skeletal reference dosimetry model for the 40-year male", 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S46 (2007)].
157. D Hasenauer*, C Lee*, D Lodwick*, C Watchman, and WE Bolch, "Development of hybrid computational newborn phantom for dosimetry calculations: The skeleton", 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S47 (2007)].
158. J Hurtado*, R Ambrose*, C Lee*, and WE Bolch, "Detector measurement-to-activity conversion coefficients for first responders and first receivers to a radiological dispersion event using stylized and tomographic models", 2007 Annual Meeting of the Health Physics Society, Portland, Oregon, July 8-12, 2007 [Supplement to *Health Phys* **93** (1) S89 (2007)].
159. A Al-Basheer, M Ghita, G Sjoden, WE Bolch, and C Lee*, "Whole-body and distal organ-specific dosimetry using parallel SN methods", 2007 Annual Meeting of the American Association of Physicists in Medicine, Minneapolis, Minnesota, July 22-26, 2007 [Supplement to *Med Phys* **34** (6) 2349 (2007)].
160. C Lee*, C Lee, D Lodwick, and WE Bolch, "Effect of subcutaneous fat on abdominal CT dosimetry: A Monte Carlo study", 2007 Annual Meeting of the American Association of Physicists in Medicine, Minneapolis, Minnesota, July 22-26, 2007 [Supplement to *Med Phys* **34** (6) 2349 (2007)].
161. J Pichardo*, V Bourke*, and WE Bolch, "MRI and MRS assessment of bone marrow cellularity", 2007 Annual Meeting of the American Association of Physicists in Medicine, Minneapolis, Minnesota, July 22-26, 2007 [Supplement to *Med Phys* **34** (6) 2357 (2007)].
162. C Zacharatou-Jarlskog, C Lee*, WE Bolch, X Xu, and H Paganetti, "Different methods of organ equivalent dose scoring in Monte Carlo neutron dose calculations", 2007 Annual Meeting of the American Association of Physicists in Medicine, Minneapolis, Minnesota, July 22-26, 2007 [Supplement to *Med Phys* **34** (6) 2437 (2007)].
163. C Zacharatou-Jarlskog, C Lee*, WE Bolch, X Xu, and H Paganetti, "Simulation of neutron dose exposure for pediatric proton therapy patients using whole-body age-dependent voxel phantoms", 2007 Annual Meeting of the American Association of Physicists in Medicine, Minneapolis, Minnesota, July 22-26, 2007 [Supplement to *Med Phys* **34** (6) 2590 (2007)].
164. HG Menzel, M Zankl, N Petoussi-Henss, KF Eckerman, and WE Bolch, "ICRP 2007 Recommendations: Impact on dose conversion coefficients for external radiation", 11th International Conference on Radiation Shielding (ICRS-11), Callaway Gardens, GA, April 13-18, 2008.
165. C Lee*, D Lodwick*, and WE Bolch, "New class of flexible computational human phantoms for Monte Carlo dosimetry calculation", 11th International Conference on Radiation Shielding (ICRS-11), Callaway Gardens, GA, April 13-18, 2008.
166. D Pafundi* and WE Bolch, "Development of hybrid newborn computational phantom for dosimetry calculation: The skeleton", 11th International Conference on Radiation Shielding (ICRS-11), Callaway Gardens, GA, April 13-18, 2008.

167. C Lee^{*}, D Lodwick^{*}, and WE Bolch, "Assessment of photon and electron internal organ dose for the University of Florida hybrid computational phantoms of the ICRP 89 reference male and female 15-year-old", 2008 Annual Meeting of the Society of Nuclear Medicine, New Orleans, LA, June 14-18, 2008. [Supplement to *J Nucl Med* **49** (5) 14P (2008)].
168. D Hasenauer^{*}, C Lee^{*}, D Lodwick^{*}, A Shahlaee, and WE Bolch, "Image-based pediatric skeletal dosimetry for the UF hybrid computational phantom series", 2008 Annual Meeting of the Society of Nuclear Medicine, New Orleans, LA, June 14-18, 2008. [Supplement to *J Nucl Med* **49** (5) 281P (2008)].
169. J Hurtado^{*}, C Lee^{*}, and WE Bolch, "Use of portable survey meters for rapid assessment of internal contamination: Monte Carlo simulations using the UF hybrid reference adult phantoms" 2008 Annual Meeting of the Health Physics Society, Pittsburgh, PA, July 13-17, 2008. [Supplement to *Health Phys* **94** (6) S29 (2008)].
170. D Pafundi^{*}, P Johnson^{*}, C Lee^{*}, D Rajon, D Lodwick^{*}, and WE Bolch, "Internal electron and external photon skeletal dosimetry for the UF hybrid computational newborn phantom", 2008 Annual Meeting of the Health Physics Society, Pittsburgh, PA, July 13-17, 2008. [Supplement to *Health Phys* **94** (6) S49 (2008)].
171. C Lee^{*}, R Howell, M Gertner, E. Chell, S Hansen, and WE Bolch, "Dosimetry characterization of a multi-beam radiotherapy treatment for age-related macular degeneration", 2008 Annual Meeting of the Health Physics Society, Pittsburgh, PA, July 13-17, 2008. [Supplement to *Health Phys* **94** (6) S69 (2008)].
172. KN Kielar^{*}, WE Bolch, AH Shahlaee, and RC Braylan, "Effect of chemotherapy on the spatial distribution of stem cells in human bone marrow", 2008 Annual Meeting of the Health Physics Society, Pittsburgh, PA, July 13-17, 2008. [Supplement to *Health Phys* **94** (6) S70 (2008)].
173. C Lee^{*}, D Lodwick^{*}, J Hurtado^{*}, D Pafundi^{*}, and WE Bolch, "UF series of hybrid computational phantoms representing ICRP reference anatomy and CDC standardized anthropometric data" 2008 Annual Meeting of the Health Physics Society, Pittsburgh, PA, July 13-17, 2008. [Supplement to *Health Phys* **94** (6) S98 (2008)].
174. L Padilla^{*}, R Milner, and WE Bolch, "Image-based canine skeletal model for bone microdosimetry in the UF Dog Phantom", 2008 National Cancer Institute Summit on Eliminating Cancer Health Disparities Through Science, Training, and Community, Bethesda, MD, July 14-16, 2008.
175. J Hanlon, C Lee, W Bolch, E Chell, S Hansen, M Gertner, and RW Howell, "NURBS-based head and eye dosimetry for ocular radiosurgery", 2008 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 27-31, 2008. [Supplement to *Med Phys* **35** (6) 2946 (2008)].
176. Sexton J^G, Bolch W, and Jenkins C, "Lung and systemic retention of Al and W nanoparticles following inhalation exposures," 2009 Annual Meeting of the Health Physics Society, Minneapolis, MN, July 12-16, 2009. [Supplement to *Health Physics* **97** (1) S22 (2009)].
177. Juneja B^{*}, Lee C, and Bolch WE, "Evaluation of radiation instrumentation for rapid screening of internal contamination following a radiological event," 2009 Annual Meeting of the Health Physics Society, Minneapolis, MN, July 12-16, 2009. [Supplement to *Health Physics* **97** (1) S105 (2009)].
178. Lee C^P, Kim K^G, and Bolch WE, "Comprehensive CT dosimetry database for pediatric and adult reference males and females: A Monte Carlo study," 2009 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2446 (2009)].
179. Sinclair L^G, Pafundi D^G, and Bolch WE, "A skeletal model for marrow dosimetry in the ICRP reference adult female", 2009 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2450 (2009)].
180. Bahadori A^G, Eckerman K, Jokisch D, and Bolch WE, "Skeletal neutron dose response functions development for use in proton therapy," 2009 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2668 (2009)].
181. Chell E, Firpo M, Bolch WE, Lee C, and Hanlon J^G, "A novel stereotactic radiosurgical device for the treatment of age-related macular degeneration (AMD)," 2009 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2710 (2009)].
182. Johnson P^G, Juneja B^G, Lee C^P, and Bolch WE, "Hybrid patient-dependent phantoms covering statistical distributions of body morphometry in the US adult and pediatric population: development and validation," 2009 Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2747 (2009)].
183. Hanlon J^G, Lee C^P, Bolch W, Chell E, Gertner M, and Hansen S, "Kilovoltage stereotactic radiosurgery for age-related macular degeneration: Assessment of patient effective dose and patient specific tissue doses," 2009

Annual Meeting of the American Association of Physicists in Medicine, Anaheim, CA, July 26-30, 2009. [Supplement to *Medical Physics* **36** (6) 2795 (2009)].

184. Hanlon J^G, Chell E, Smith WC, Bolch WE, "Computational Assessment of Dose for Stereotactic Radiosurgery of Age-Related Macular Degeneration", 2010 Annual Meeting of the Association for Research in Vision and Ophthalmology, Fort Lauderdale, Florida, May 2-6, 2010.
185. Frey EC, He B, Wayson M^G, Treves S, Bolch WE, and Sgouros G, "Effect of body habitus on the relationship between administered activity and defect detectability 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** 329P (2010)].
186. Wayson M^G and Bolch WE, "Complete internal photon dosimetry characterization of the University of Florida newborn hybrid computational phantom," 2010 Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 5-9, 2010 [Supplement to *J Nucl Med* **51** 414P (2010)].
187. Lee C^A, Kim K^{PA}, Long D^G, Fisher R^G, Simon S, and Bolch WE, "Organ doses in ICRP reference children exposed to computed tomography examinations: Monte Carlo simulation", 2010 Annual Meeting of the American Statistical Association, Annapolis, MD, June 13-16, 2010.
188. Jokisch D, Bahadori A^G, Rajon D, and Bolch WE, "Specific absorbed fractions for protons in the human skeleton", 2010 Annual Meeting of the Health Physics Society, Salt Lake City, Utah, June 26 – July 1, 2010 [Supplement to *Health Phys* **99** S39 (2010)].
189. Bahadori A^G, Van Baalen M, Shavers M, Semones E, Dodge C, and Bolch WE, "Effect of anatomical modeling on space radiation dose estimates: A comparison of doses for NASA dosimetry phantoms and the UF hybrid phantoms", 2010 Annual Meeting of the Health Physics Society, Salt Lake City, Utah, June 26 – July 1, 2010 [Supplement to *Health Phys* **99** S88 (2010)].
190. Juneja B^G, Bolch WE, and Lee C^P, "Software for first responders allowing for interpretation of portable survey meter responses in radiological triage decisions", 2010 Annual Meeting of the Health Physics Society, Salt Lake City, Utah, June 26 – July 1, 2010 [Supplement to *Health Phys* **99** S106 (2010)].
191. Johnson P^G and Bolch WE, "Can patient-phantom matching improve the accuracy of dose evaluation in interventional fluoroscopy?", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3099 (2010)].
192. Lee C^A, Long D^G, Fisher R, Kim K^A, and Bolch WE, "Organ dose in the reference adult male and female exposed to computed tomography examinations: Monte Carlo simulations and experimental validation", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3099 (2010)].
193. Maynard M^G, Geyer J^G, Aris J, Shifrin R, and Bolch WE, "Hybrid computational phantoms of the developing human fetus", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3113 (2010)].
194. Huang H, Sjoden G, Li J, Al-Basheer A, and Bolch WE, "Validation of a novel dose calculation approach for heterogeneous voxelized phantoms in a parallel computation environment using electron dose kernels for radiotherapy", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3280 (2010)].
195. Taranenko V, Paganetti H, Juneja B^G, and Bolch WE, "Comparing computational phantoms and whole-body CT patient images for secondary cancer risk estimation", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3282 (2010)].
196. Hanlon J^G, Chell E, Firpo M, and Bolch WE, "Energy and spatial distribution of photon fluence emanating from the head during stereotactic radiosurgery for age-related macular degeneration", 2010 Annual Meeting of the American Association of Physicists in Medicine, Philadelphia, PA, July 18-22, 2010 [Supplement to *Med Phys* **37** 3313 (2010)].
197. Abadia A^G, Pawel D, and Bolch WE, "BEIR VII models and updates for calculating radiogenic cancer incidence and mortality risk", 2011 Annual Meeting of the Health Physics Society, Palm Beach, FL, June 25-29, 2011 [Supplement to *Health Phys* **101** S58 (2011)].
198. Dziadon A^G, Geyer A^G, Lee C^P, Johnson P^G, Wayson M^G, and Bolch WE, "The UF family of pediatric patient-dependent phantoms for medical dose reconstruction", 2011 Annual Meeting of the Health Physics Society, Palm Beach, FL, June 25-29, 2011 [Supplement to *Health Phys* **101** S31 (2011)].

199. Juneja B^G, Kannan S^G, and Bolch WE, "PDA software for radiological triage of internal gamma-emitting radionuclide contamination using standard portal survey instrumentation", 2011 Annual Meeting of the Health Physics Society, Palm Beach, FL, June 25-29, 2011 [Supplement to *Health Phys* **101** S66 (2011)].
200. Johnson PB^G, Borrego D^G, and Bolch WE, "Cloud computing for interventional fluoroscopy dose assessment", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3406 (2011)].
201. Maynard M^G, Geyer J^G, Aris J, Shifrin R, and Bolch WE, "The UF family of hybrid phantoms of the developing fetus for computational fetal dosimetry", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3407 (2011)].
202. Wayson M^G, Lee C^P, Sgouros G, and Bolch WE, "Computational internal dosimetry methods as applied to the UF Series of Hybrid Phantom", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011, Vancouver, BC [Supplement to *Med Phys* **38** 3408 (2011)].
203. Tien C^G, Cantley J^G, Hintenlang D, Bolch WE, Firpo M, and Chell E, "Real-time monitoring of age-related macular degeneration radiosurgery using plastic scintillation dosimetry", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3533 (2011)].
204. Hanlon J^G, Chell E, Firpo M, and Bolch WE, "Kilovoltage stereotactic radiosurgery for AMD: A more complete evaluation of effective dose", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3654 (2011)].
205. Bahadori A^G, Shavers M, Van Baalen M, Semones E, and Bolch WE, "Comparison of organ dosimetry for astronaut phantoms: Earth-based versus microgravity-based anthropometry and body positioning", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3721 (2011)].
206. Lee C^A and Bolch WE, "Development of computational lymph node models for pediatric hybrid phantoms for nuclear medicine dosimetry", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3729 (2011)].
207. Moteabbed M, Geyer^G, Drenkhahn R, Bolch WE, and Paganetti H, "Comparison of organ doses in pediatric phantoms for secondary cancer risk assessment in proton radiotherapy", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3869 (2011)].
208. Lee C^A, Long D^G, Kim K^A, Simon S, and Bolch WE, "Estimation of organ doses in reference pediatric individuals undergoing computed tomography using Monte Carlo simulations", 2011 Annual Meeting of the American Association of Physicists in Medicine, Vancouver, BC, July 31 – August 4, 2011 [Supplement to *Med Phys* **38** 3876 (2011)].
209. Maynard M^G and Bolch WE, "Application of the UF series of hybrid computational fetal phantoms to Techa River Internal Dosimetry", First Annual James E. Turner Memorial Symposium on Radiological Physics and Microdosimetry, Oak Ridge, TN, April 18-19, 2012.
210. Cantley J^G and Bolch WE, "Influence of eye size on radiation absorbed dose delivered to non-targeted tissues during stereotactic radiosurgery for age-related macular degeneration", First Annual James E. Turner Memorial Symposium on Radiological Physics and Microdosimetry, Oak Ridge, TN, April 18-19, 2012.
211. Maynard M^G, Geyer J^G, Aris J, Shifrin R, and Bolch WE, "Application of the UF series of hybrid computational fetal phantoms to Techa River internal dosimetry", 2012 Annual Meeting of the Health Physics Society, Sacramento, CA, July 22 – 26, 2012 [Supplement to *Health Phys* **103** S20 (2012)].
212. Long D^G, Lee C^A, Tien C, Fisher R, Hintenlang D, and Bolch WE, "Monte Carlo simulations of adult and pediatric computed tomography exams – Validation studies of organ doses with physical phantoms," 2012 Annual Meeting of the Health Physics Society, Sacramento, CA, July 22 – 26, 2012 [Supplement to *Health Phys* **103** S75 (2012)].
213. Long N^G, Maynard M^G, Shifrin R, and Bolch WE, "Development of a series of reference pregnant female hybrid computational models," 2012 Annual Meeting of the Health Physics Society, Sacramento, CA, July 22 – 26, 2012 [Supplement to *Health Phys* **103** S93 (2012)].
214. Lamart S, Kim K^{PA}, Bolch WE, and Lee C^A, "Effective dose normalized to dose-length product for pediatric and adult reference phantoms in computed tomography examinations", 2012 Annual Meeting of the

American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3634 (2012)].

215. Geyer AG, O'Reilly SG, Lee CA, Long DG, and Bolch WE, "The UF/NCI family of hybrid computational phantoms representing current US population of male and female children and adolescents – applications to CT organ dosimetry", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3635(2012)].
216. Han EYA, Lee CA, and Bolch WE, "Patient specific assessment of external radiation exposure to bystanders interacting with patients following I-131 therapy", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3694 (2012)].
217. Cantley JG, Chell E, Firpo M, Hanlon JA, Lee CA, and Bolch WE, "Influence of eye size on radiation absorbed dose delivered to non-targeted tissues during stereotactic radiosurgery for age-related macular degeneration", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3815 (2012)].
218. Lee CA, Kim KPA, Long DG, and Bolch WE, "NCICT – a computer program for organ and effective dose calculation for pediatric and adult patients undergoing computed tomography", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3938 (2012)].
219. Ding AP, Gao Y, Caracappa P, Long DG, Bolch WE, and Xu XG, "A comprehensive CT organ dose database for weight-specific adult and pediatric phantoms", 2012 Annual Meeting of the American Association of Physicists in Medicine, Charlotte, NC, July 29 – August 2, 2012 [Supplement to *Med Phys* **39** 3940 (2012)].
219. Abadia AG, Bolch WE, and Pawel D, "Alternatives to the effective dose for stochastic risk assessment in medical imaging", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
220. Maynard MG, Long NG, Aris J, Shifrin R, and Bolch WE, "Potential Tracking of Fetal Organ Dose During Medical Imaging of the Pregnant Female with the UF Series of Computational Pregnant Female Models", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
221. Smith-Bindman R, Miglioretti D, MacGregor D, Lee CA, Flynn M, Bolch WE, Martin C, and Harrison J, "Using effective dose as an estimate of individual patient dose and future cancer risk from computed tomography", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
222. Ding A, Gao Y, Caracappa P, Liu B, Long DG, Bolch WE, Xu XG, "Testing of CT dose software VirtualDose™ for tracking and reporting patient doses", 2012 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, November 25-30, 2012.
223. Cantley JG, and Bolch WE, "Dose to non-targeted tissues of the eye during stereotactic radiosurgery", 2013 Mid-Year Meeting of the Health Physics Society, Scottsdale, Arizona, January 27-30, 2013.
224. Borrego DG, Siragusa D, and Bolch WE, "Development of a rapid in-clinic peak skin and organ dose algorithm for improved patient risk management during high-dose fluoroscopically guided interventions", Second Annual James E. Turner Memorial Symposium on Radiological Physics and Microdosimetry, Oak Ridge, TN, May 22-23, 2013.
225. Stepusin EJG, Long DJG, Geyer AG, and Bolch WE, "Impacts of anthropomorphic patient-phantom matching on organ doses in computed tomography exams with and without tube current modulation", Second Annual James E. Turner Memorial Symposium on Radiological Physics and Microdosimetry, Oak Ridge, TN, May 22-23, 2013.
226. Borrego DG, Siragusa D, and Bolch WE, "In-clinic assessment of skin doses for interventional fluoroscopic procedures", **Invited Speaker**, 2013 Annual Meeting of the American Nuclear Society, Hyatt Regency Hotel, Atlanta, Georgia, June 16-20, 2013
227. Geyer AMG, O'Reilly SG, Lee CA, and Bolch WE, "The University of Florida / National Cancer Institute family of hybrid computational phantoms representing the current United States population of adults, adolescents, and children," 2013 Annual Meeting of the Health Physics Society, Madison, WI, July 7 – 11, 2014 [Supplement to *Health Phys* **105** S81 (2013)].
228. Huang M, Manalo K, Bolch W, Lee CA, and Sjoden G, "An improved deterministic 3 calculation for radiation therapy application", 2013 Annual Meeting of the American Association of Physicists in Medicine, Indianapolis, Indiana, August 4-8, 2013 [Supplement to *Med Phys* **40** 328 (2013)].

229. Ding A, Gao Y, Caracappa P, Long D^G, Bolch W, Liu B, Kalra M, and Xu XG, "Clinical evaluation of VirtualDose – a software for tracking and reporting CTDI, DLP, organ and effective dose for adult and pediatric patients", 2013 Annual Meeting of the American Association of Physicists in Medicine, Indianapolis, Indiana, August 4-8, 2013 [Supplement to *Med Phys* **40** 458 (2013)].
230. Long D^G, Stepusin EJ, Sinclair L, and Bolch WE, "Monte Carlo patient dosimetry for computed tomography examinations with automatic tube current modulation using a pre-calculated organ dose database", 2013 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, December 1-6, 2013.
231. Long N^G, Maynard M, Shifrin RY, Moawad NS, and Bolch WE, "Fetal radiation doses in computed tomography examinations of pregnant patients: A comparison between whole-body and individual organ doses at three different gestational ages", 2013 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, December 1-6, 2013.
230. Borrego D^G, Siragusa D, and Bolch WE, "Developments to a rapid in-clinic peak skin and organ dose algorithm for improved patient risk management during high-dose fluoroscopically guided interventions", 2013 Annual Meeting of the Radiological Society of North America, Chicago, Illinois, December 1-6, 2013.
231. Plyku D, Fahey F, Treves T, Frey E, Bolch WE, and Sgouros G, "Pharmacokinetic modeling of pediatric imaging agents", 2014 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, June 8-12, 2014 [Supplement to *J Nucl Med* **55** 1134 (2014)].
232. O'Reilly S^G, Li W, Treves T, Frey E, Sgouros G, Fahey F, and Bolch WE, "A population of phantoms to investigate the tradeoff between radiation dose and image quality", 2014 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, June 8-12, 2014 [Supplement to *J Nucl Med* **55** 368 (2014)].
233. Geyer A^G, Hobbs R, Sgouros G, and Bolch WE, "Anatomically realistic macroscopic dosimetry models of the kidney for radionuclide therapy", 2014 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, June 8-12, 2014 [Supplement to *J Nucl Med* **55** 1459 (2014)].
234. Tran T^G, Borrego D^G, Siragusa D, and Bolch WE, "Use of optically stimulated luminescent dosimeters for experimental validation of a fluoroscopic skin dose mapping system", 2014 Annual Meeting of the Health Physics Society, Baltimore, MD, July 12-16, 2014 [Supplement to *Health Phys* **107** S17 (2014)].
235. Schwarz B^G, Maynard M^G, Degteva M, Napier B, and Bolch WE, "Organ dose coefficients for Asian-scaled phantoms from external exposures at the Techa River", 2014 Annual Meeting of the Health Physics Society, Baltimore, MD, July 12-16, 2014 [Supplement to *Health Phys* **107** S17 (2014)].
236. Sands M^G, Shang M^G, Milner R, and Bolch WE, "Hybrid computational phantoms of the Labrador and Beagle to support preclinical dosimetry for radionuclide therapy of osteosarcoma", 2014 Annual Meeting of the Health Physics Society, Baltimore, MD, July 12-16, 2014 [Supplement to *Health Phys* **107** S97 (2014)].
237. Long N^G, Egan K, and Bolch WE, "Development of a computational adult brain model for use in CT dosimetry", 2014 Annual Meeting of the Health Physics Society, Baltimore, MD, July 12-16, 2014 [Supplement to *Health Phys* **107** S99 (2014)].
238. Godwin W^G, Jenkins CM, Birchall A, and Bolch WE, "ChemIMBA – A new software tool for bioassay monitoring of workers exposed to nanophase aerosols", 2014 Annual Meeting of the Health Physics Society, Baltimore, MD, July 12-16, 2014. [Supplement to *Health Phys* **107** S31 (2014)].
239. O'Reilly S^G, Sinclair L, Maynard M^G, Rajon D, Wayson M^G, Marshall E, and Bolch WE, "An image-based skeletal dosimetry model for the ICRP reference adult female – internal electron sources", 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 20-24, 2014. [Supplement to *Med Phys* **41** 503 (2014)].
240. Petroccia H^G, O'Reilly S^G, Mendenhall N, Li Z, Slopsema R, and Bolch WE, "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", 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 20-24, 2014. [Supplement to *Med Phys* **41** 224 (2014)].
241. Olguin E^G and Bolch WE, "Electron and photon absorbed fraction for tumors of varying sizes and compositions", 2014 Annual Meeting of the American Association of Physicists in Medicine, Austin, TX, July 20-24, 2014. [Supplement to *Med Phys* **41** 110 (2014)].
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 EJ^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 C^A, Kim K^A, 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 99mTc-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 radiopharmaceutical 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 E^U, 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 C^A, 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 ¹⁸F-FDG 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 EA, Stepusin EJ^A, Long DA, 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. 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* 63:2349 (2022)].
303. Ocampo-Ramos J, Carter L, Kesner A, Zanzonico P, Olguin E^A, Bolch WE, “A tumor dosimetry module within the MIRDcalc software tool: Considerations of tumor size and tissue composition”, 2022 Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, Vancouver, BC, June 11-14, 2022. [Supplement to *J Nucl Med* 63:2350 (2022)].
304. Ocampo-Ramos J, Carter L, Kesner AL, Zanzonico P, Kofler C^A, Domal S^J^G, 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* 63:2654 (2022)].
305. 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* 63:2348 (2022)].
306. 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* 63:3187 (2022)].
307. Dozic AV, Aris JP, Correa-Alfonso C^G, Domal S^J^G, Withrow J^D^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* 63:3207 (2022)].
308. Li Y, Brown J^L^A, 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* 63:2390 (2022)].
309. 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* 123: WAM-A.8 (2022)].
310. 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 Annual Meetings of the Health Physics Society, Spokane, WA, July 17-21, 2022. [Supplement to *Health Phys* 123: WAM-B.1 (2022)].
311. Dawson R^G, Baggett J^G, Wang Y^G, Smither W^G, Dinwiddie L^G, Wehmeier S^U, Domal S^G, Kofler C^A, Carter L, Ocampo J, Zanzonico P, Kesner A, Bolch WE, “The UF/MSK computational phantom library for medical dosimetry: Adult males and females”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* 49:4151 (2022)].
312. Baggett J^G, Dawson R^G, Wang Y^G, Smither W^G, Dinwiddie L^G, Wehmeier S^U, Domal S^G, Kofler C^A, Carter L, Ocampo J, Zanzonico P, Kesner A, Bolch WE, “The UF/MSK computational phantom library for medical dosimetry: Pediatric males and females”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* 49:4166 (2022)].
313. Correa-Alfonso C^G, Domal S^G, Withrow J^U, McCullum L, Grassberger C, Xing S, Paganetti H, Bolch WE, “Intra-brain vascular models with the adult mesh-type reference phantoms for applications to external beam radiotherapy and nuclear medicine dosimetry”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* 49:4181 (2022)].
314. Domal S^G, Giap F, Johnson P^A, Artz M, Kirby K, Williams C, and Bolch WE, “Assessment of fetal dose during breast radiotherapy using 3D-CRT, IMRT, and proton PBS approaches”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* 49:4206 (2022)].

315. Domal S^G, Kofler C^A, Ocampo-Ramos J, Carter L, Kesner A, Zanzonico P, and Bolch WE, “A computed tomography (CT) organ dose library for pregnant females of varying body size and fetuses of varying gestational age”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* **49**:4151 (2022)].
316. Dozic AV^U, Aris JP, Correa-Alfonso C^G, Domal S^G, Withrow JD^U, Xing S, McCullum L, Grassberger C, Paganetti H, Bolch WE, “A macroscale model of the adult human kidney with arterial and venous cortical vasculature for applications in radiopharmaceutical dosimetry”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* **49**:4142 (2022)].
317. McCullum L, Xing S, Shin J, Beekman C, Correa-Alfonso C^G, Domal S^G, Withrow J^U, Bolch WE, Shih J, Paganetti H, Grassberger C, “A dynamic brain blood flow model using detailed vasculature to investigate lymphocyte depletion during external beam radiotherapy”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* **49**:4188 (2022)].
318. Xing S, Correa-Alfonso C^G, Shin J, Pursley J, Depauw N, McCullum L, Domal S^G, Withrow J^U, Bolch WE, Grassberger C, Paganetti H, “Towards finding the right liver vasculature model for estimating dose to circulating blood during radiotherapy in hepatocellular carcinoma patients”, 2022 Annual Meeting of the American Association of Physicists in Medicine, Washington, DC, July 10-14, 2022. [Supplement to *Med Phys* **49**:4184 (2022)].
319. Uribe C, Howell R, Kesner A, Adhikarla V, Barbee R, Bolch WE, Dewaraja Y, Erwin W, Fisher DR, Laforest R, Rajendran J, Sgouros G, Zanzonico P, “MIRD synopsis for dosimetry in radiopharmaceutical therapies: A case study for currently approved ¹⁷⁷Lu therapies”, 2023 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Chicago, IL, June 24-27, 2023 [Supplement to *J Nucl Med* **50**:xxxx (2023)].
320. Marquis H, Ocampo-Ramos JC, Carter LM, Bolch WE, Kesner AL, “MIRDy90: A software tool for ⁹⁰Y microsphere treatment planning calculations”, 2023 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Chicago, IL, June 24-27, 2023 [Supplement to *J Nucl Med* **50**:xxxx (2023)].
321. Huesa-Berral C, Withrow JD^G, Beekman C, Bolch WE, Paganetti H, Bertolet A, “A novel stochastic approach to simulate the distribution of Y-90 microspheres in liver tumors”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3960 (2023)].
322. Beekman C, Withrow JD^G, Pathak SP^U, Correa-Alfonso CM^G, Dawson RJ^G, Bolch WE, Paganetti H, “Accurate calculations of blood dose for lung cancer patients”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3914 (2023)].
323. Bushloper M^G, Bolch WE, Manuel M, Murray J, Liang X, Dawson R^G, Bradley J, “A novel breast expander for optimized imaging and radiotherapy of post-mastectomy patients”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3942 (2023)].
324. Carrasco-Rojas NE^G, Dawson RJ^G, Bolch WE, “Inter-organ radiation transport within the MOBY mesh-type phantom for application to nuclear medicine dosimetry”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3981 (2023)].
325. Sforza A^G, Withrow J^G, Dawson RJ^G, Paganetti H, Bolch WE, “Brain vasculature model with the mouse whole-body (MOBY) phantom for external beam radiotherapy and nuclear medicine dosimetry”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3936 (2023)].
326. Smither W^G, Applegate K, Bolch WE, Borrego D^A, Marshall E^A, “Development of common pediatric diagnostic fluoroscopy reference protocols for dosimetry research and optimization”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3943 (2023)].
327. Smither W^G, Applegate K, Bolch WE, Borrego D^A, Marshall E^A, “Quantifying the impact of iodinated contrast volume in the urinary bladder on in-field organ doses for a voiding cystourethrogram utilizing Monte Carlo simulations”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3940 (2023)].
328. Wehmeier S^G, Baggett J^G, Dawson R^G, Dinwiddie L^G, Wang Y^G, Smither W^G, Domal S^A, Kofler C^A, Carter L, Ocampo-Ramos JC, Zanzonico P, Kesner A, Bolch WE, “The UF/MSK computation phantom library for medical dosimetry – newborns, infants, and toddlers”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3965 (2023)].
329. Withrow JD^G, Pathak SP^U, Correa-Alfonso C^M, Dawson RJ^G, Domal S^J, Beekman C, Paganetti H, Bolch WE, “Heart and lung vascular models within the adult mesh-type reference phantoms for applications to

- internal dosimetry”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3966 (2023)].
330. [Baggett J^G](#), Dawson R^G, Wang Y^G, Smither W^G, Dinwiddie L^G, Wehmeier S^G, Carter L, Ocampo J, Zanzonico P, Kesner A, Bolch WE, “Construction of CT Dosimetry Library Using the UF/MSK Mesh-Type Computational Phantoms, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3907 (2023)].
331. [Choi C^P](#), Wang Y^G, Dawson R^G, Shin B, and Bolch WE, “Mesh-based skeletal models of the ICRP reference adults – Dosimetry comparisons with voxel-based models”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3980 (2023)].
332. [Correa-Alfonso CM^A](#), Domal SA, Johnson PA, Artz M, Paganetti H, Bolch WE, “Computational assessment of out-of-field neutron doses within a virtual anthropomorphic pediatric phantom in proton therapy”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3978 (2023)].
333. [Dawson RJ^G](#), Withrow JD^G, Correa-Alfonso CM^A, Domal SA, Beekman C, Huesa-Berral C, Paganetti H, and Bolch WE, “Macroscale and microscale intra-liver vascular models within the adult mesh-type reference computational phantoms for applications to internal dosimetry”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3911 (2023)].
334. [Dinwiddie L^G](#), Dawson R^G, Baggett J^G, Wang Y^G, Smither W^G, Wehmeier W^G, Ocampo-Ramos JC, Carter L, Marquis H, Zanzonico P, Kesner A, and Bolch WE, “Construction of a mesh-based computational phantom library including anatomical adjustments for common CT positioning”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3922 (2023)].
335. [President BNC^G](#), Brown JLA, Dawson RJ^G, and Bolch WE, “S-values for brain subregions and lacrimal gland sources to support radionuclide and radiopharmaceutical dosimetry in the mesh-type ICRP reference adult phantoms”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3979 (2023)].
336. [President BNC^G](#), Vehab-Dozic A^U, Bolden RA, Ellis L^U, Colon-Ortiz C^G, Sforza A^G, Aris JL, Sgouros G, Frey EC, Hobbs RF, and Bolch WE, “S-value evaluation for a histology-based 3D model of the renal cortical labyrinth for alpha-emitter radiopharmaceutical therapies”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3966 (2023)].
337. [Wang Y^G](#), Choi C^P, Dawson R^G, Shin B, Bolch WE, “Mesh-based skeletal models of the ICRP reference adults – Construction methodology”, 2023 Annual Meeting of the American Association of Physicists in Medicine, Houston, TX, July 23-27 [Supplement to *Med Phys* **50**:3904 (2023)].
338. [Ranjbar S](#), Hargrove D, Darji M, Carrasco-Rojas N^G, Salner A, Bolch WE, Lu X, “Radiation-induced tumor penetration of mesoporous silica nanoparticles for enhanced treatment of ovarian cancer peritoneal metastases”, 2023 Annual Meeting of the American Association of Pharmacological Scientists, PharmSci 360, Orlando, FL, October 22-25, 2023.

[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.
33. "Release Criteria and Instructions for Radiopharmaceutical Therapy Patients", 2023 Summer School of the American Association of Physicists in Medicine (AAPM), University of Minnesota – Twin Cities, June 2-7, 2023.
34. "The MIRD Schema and Computational Human Phantoms in Radiopharmaceutical Therapy", 2023 Summer School of the American Association of Physicists in Medicine (AAPM), University of Minnesota – Twin Cities, June 2-7, 2023.

35. "Dosimetry-Based Treatment Planning in Radiopharmaceutical Therapy – ICRU Report 96", 2023 Summer School of the American Association of Physicists in Medicine (AAPM), University of Minnesota – Twin Cities, June 2-7, 2023.

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.

Regional Professional Meeting Presentations - Students and Collaborators

None

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.
16. "Cancer Risks Following Medical Imaging – The Scare, The Science, and The Path to Resolution", UF Health Cancer Center Cancer Control and Population Sciences (CCPS) Program, February 28, 2022.
17. "Computational Human Phantoms and their Role in Medical Imaging and Cancer Radiotherapy", National Science Foundation Research Experience for Teachers, Sarah Furtney, PhD – Organizer, BME Department 2022 Summer Program, July 19, 2022.
18. "Cancer Risks Following Medical Imaging – The Scare, The Science, and The Path to Resolution", University of Florida Neuroscience Club, March 7, 2023.

Local Seminars and Lectures – Students and Collaborators

1. Carrasco-Rojas N^G, Dawson R^G, Strecker N^U, Bolch WE, "Development and Application of the MOBY and ROBY Mesh-Type Phantoms for Radiopharmaceutical Dosimetry", UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.
2. Colon-Ortiz C^G, Dawson R^G, Dozic A^U, Aris J, Bolch WE, "A Macroscale Model of the Adult Human Kidney with Arterial and Venous Cortical Vasculature for Applications in Radiopharmaceutical Dosimetry", UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.
3. Pathak SP^U, Withrow J^G, Bolch WE, "Refined Inter-Organ Vascular Models within the Adult Mesh-Type Reference Computational Phantoms for Applications to Internal Dosimetry", UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.
4. President B^G, Dozic AV^U, Bolden R^G, Ellis L^U, Colon-Ortiz C^G, Sforza A^G, Aris J, Sgouros G, Frey E, Hobbs R, Bolch WE, "S-value Evaluation for a Histology-Based 3D Model of the Renal Cortical Labyrinth for Alpha Radiopharmaceutical Therapy", UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.

5. Sforza A^G, Dawson R^G, Dillon KD, Withrow JD^G, Carrasco-Rojas NE^G, Paganetti H, Bolch WE, McFetridge PS, "A Vascular Model within the Mouse Whole-Body Phantom for Blood Radiation Dosimetry" UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.
6. Withrow JD^G, Pathak SP^U, Dawson RJ^G, Beekman C, Correa-Alfonso^A, Domal SJ^A, Paganetti H, Bolch WE, "Models of the Heart and Lung Vasculature with the Adult Mesh-Type Reference Computational Phantoms for Applications to Blood Dose Tracking", UF Health Cancer Center Research Showcase, January 31, 2023, University of Florida Campus, Gainesville, FL.

SPONSORED RESEARCH ACTIVITIES

Current Research Grants and Contracts

1. *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 Projects P0141737, P0141739, P0141740, P0141742, P0141743**)
2. *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**)
3. *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**, October 1, 2021 – September 30, 2025, Peer Review, 3 Students (**UF Project P0248625**).
4. *Multiscale Evaluation and Mitigation of Toxicities Following Internal Radionuclide Contamination* (P01 AI165380) National Institute of Allergy and Infectious Diseases (NIAID), \$1,351,883 (direct), \$1,950,298 (total), Wesley E. Bolch, **Principal Investigator – Northwestern University Subaward to UF**, March 1, 2022 – February 28, 2027, Peer Review, 3 Students (**UF Project P0251931**).
5. *Nanoparticle-based Intraperitoneal Delivery of Combined Chemo-radiotherapy for Treatment of Ovarian Cancer Metastases* (R44 CA239989) National Cancer Institute (NCI), \$150,978 (direct), \$211,511 (total), Wesley E. Bolch, **Principal Investigator – Nami Therapeutics Subaward to UF**, August 1, 2022 – July 31, 2024, Peer Review, 1 Student (**UF Project – P0269309**).
6. *Imaging, Dosimetry, and Radiobiology for Alpha-Particle Emitter Radiopharmaceutical Therapy* (P01 CA272222), \$1,154,453 (direct), \$1,659,424 (total), Wesley E. Bolch, **Principal Investigator – Johns Hopkins University Subaward to UF**, September 19, 2023 – August 31, 2028, Peer Review, 3 Students (**UF Project – Pending**).

Summary of Currently Active External Grants

<i>Role</i>	<i>Total</i>	<i>Direct Costs</i>	<i>Indirect Costs</i>
Principal Investigator	\$7,736,560	\$5,423,023	\$2,313,537
Co-Principal Investigator	\$0	\$0	\$0
Investigator	\$0	\$0	\$0
Academic Sponsor	\$0	\$0	\$0
Totals	\$7,736,560	\$5,423,023	\$2,313,537

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. *nanoIMBA™ - 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**)
85. *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**)
86. *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 P0229366**)
87. *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.

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	\$10,047,790	\$7,403,590	\$2,644,200
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	\$12,005,790	\$9,065,035	\$2,940,755

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).
- **May 9-13, 2021**, Attended the 2021 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Austria.
- **September 24-28, 2022**, Attended the 1st International Workshop on Radiopharmaceutical Therapy Tissues Effects in the Clinic (RPT-TEC), Corfu, Greece.
- **November 21-23, 2022**, Attended an in-person meeting of the UNSCEAR Expert Group on Secondary Cancer Risks following Radiotherapy (SPCaRT), Vienna International Center, Austria.
- **June 19-23, 2023**, Attended the 2023 Annual Meeting of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) as a United States Delegate, Vienna International Center, Austria.
- **August 27-30, 2023**, Attended the 2023 Meeting of the International Congress on Radiation Research, Montreal, Quebec, Canada.
- **September 5-7, 2023**, Chaired a meeting of the Secondary Primary Cancer following Radiotherapy (SPCaRT) Expert Group of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), Vienna, Austria.
- **September 11-13, 2023**, Attended and presented at the 5th International Symposium on Clinical Medical Physics, Universidad Autonoma Metropolitana, Mexico City, Mexico.

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 Moineiro
The Bolch ALRADS Laboratory is actively working with Professor Tavitian and Professor Moineiro 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
BME 6938	Patient Dosimetry in Medical Imaging and Therapy	Spring 2019 - Present
<i>Past Courses</i>		
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
<i>Past Courses</i>		
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: Senior Vice President, 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: Head of Dosimetry Research, French Institute of Radiological Protection (IRSN), Paris

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: Senior Investigator, 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
Present Position: Chief 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: Assistant Professor, Dept. of Radiation Oncology, Medical University of South Carolina
6. **Choi, Chansoo, PhD** (September 2022 – Present)
Doctoral Program: Nuclear Engineering, Hanyang University, Seoul, Republic of Korea
Research Responsibilities: Development computational models and software for rapid in-field radiological triage screening of both military personal and adult/pediatric/pregnant civilians following a radiological terrorist event.

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

International Examiner Appointments

1. **Akhavanallaf, Azadeh, PhD** (Defense: March 2023)
PhD Program: Département de Radiologie et Informatique, University of Zurich
Dissertation: *Strategies for Radiation Dose Monitoring and Optimization in Diagnostic and Therapeutic Nuclear Medicine Procedures*

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*

30. **Colon-Ortiz, Carlos** (Biomedical Engineering – Fall 2020)
Project – *Microscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*
31. **Holland, Jerry** (Biomedical Engineering – Fall 2021)
Project – *Microscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*
32. **Nguyen Brian** (Biomedical Engineering – Fall 2021)
Project – *Mesh-based models of the laboratory mouse and rate*
33. **Sforza, Andrew** (Biomedical Engineering – Summer 2021) – Adenbaum Scholar
Project – *Blood vasculature modeling of the adult human thyroid gland*
34. **Wehmeier, Stefan** (Biomedical Engineering – Fall 2019)
Project – *Development of the UF newborn, infant, and toddler (NIT) computational human phantoms*
35. **Withrow, Julie** (Biomedical Engineering – Fall 2019) – University Scholar
Project – *Blood vasculature modeling of the adult human liver, brain, and lungs*
36. **Dickson, Andrew** (Biomedical Engineering – Summer 2022) – Adenbaum Scholar
Project – *Microscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*
37. **Dozic, Abdul-Vehab** (Physics / Pre-MP – Fall 2020) – University Scholar
Project – *Macroscale Tissue Models of the Kidneys to Support Alpha-Emitter Radiopharmaceutical Therapy*

Current Students (PhD)

1. **Baggett, Jared** (Medical Physics)
Dissertation Topic – *Computed tomography dosimetry across the UF/MSK computational phantom library*
 2. **Carrasco-Rojas, Natalia** (Medical Physics)
Dissertation Topic – *Modeling of the internal blood vasculature of the MOBY mesh-based mouse phantom*
 3. **Dawson, Robert** (Medical Physics)
Dissertation Topic – *Computed tomography dosimetry across the UF/MSK computational phantom library*
 4. **Dinwiddie, Laura** (Biomedical Engineering)
Dissertation Topic – *Physical phantoms for validating MC models of tube current modulation in CT imaging*
 5. **President, Bonnie** (Medical Physics)
Dissertation Topic – *Mesh-based 3D tissue models for alpha-emitter radiopharmaceutical therapy*
 6. **Smither, Wyatt** (Medical Physics)
Dissertation Topic – *Construction of a computational human phantom library of US military personnel*
 7. **Wang, Yitian** (Biomedical Engineering)
Dissertation Topic – *Mesh-based microscale models of the human skeletal tissues*
-

Current Students (Master's)

1. **Bushloper, Madison** (Medical Physics)
Project Topic – *Microscale models of the human kidney for alpha-particle dosimetry*
 2. **Colon-Ortiz, Carlos** (Medical Physics)
Project Topic – *Macroscale models of the human kidney for internal dosimetry*
 3. **Sforza, Andrew** (Medical Physics)
Project Topic – *MicroCT imaging and modeling to the blood vasculature of the laboratory mouse*
 4. **Wehmeier, Stefan** (Medical Physics)
Project Topic – *Construction of the slice-specific dosimetry library for computed tomography imaging*
 5. **Withrow, Julia** (Medical Physics)
Project Topic – *Advanced techniques for modeling blood self-absorption in radiopharmaceutical dosimetry*
-

Current Students (Undergraduates)

1. **Ellis, Lauren** (Biomedical Engineering / Physics – Summer 2021) – University Scholar
 2. **Fernandez, Daniel** (Nuclear Engineering – Fall 2023)
 3. **Fuentes-Alfonso, Lazaro** (Nuclear Engineering – Fall 2022) – University Scholar
 4. **Marlin, Elizabeth** (Nuclear Engineering – Fall 2023)
 5. **Parker, Luke** (Physics / Pre-MP – Fall 2023)
 6. **Pathak, Shreya** (Yale University – Fall 2020) – Post-Baccalaureate Researcher
 7. **Salminen, Spencer** (Nuclear Engineering – Spring 2023) – University Scholar
 8. **Strecker, Nicole** (Physics / Pre-MP - Spring 2023) – University Scholar
 9. **Zorrilla, Alexander** (Post-Baccalaureate / Pre-Med – Fall 2021) – Post-Baccalaureate Researcher
-

Current Students (Other Students)

1. **Haneberg, Grey** (Medical Physics) – Post-MS
2. **Lichlyter, Daniel** (UF Medical School – Fall 2023)

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, Texas Children’s Hospital, 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 – **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 – Assistant Professor, Dept. of Health Physics & Diagnostic Sciences, Univ of Las Vega, NV
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 – Senior Vice President, 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 – **Professor and Chair**, 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 – Director of Global Product Marketing, Siemens Medical, Erlangen, Germany
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 – Senior Medical Physicist, Orlando Health Cancer Institute, 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 – Diagnostic Physicist, Orlando Regional Healthcare System
Dissertation – NMR Microscopy for Skeletal Dosimetry: Investigation of Marrow Cellularity on Dosimetry
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 – **Professor**, Department of Radiation Oncology, University of California - Irvine
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 – **Professor**, Nuclear Engineering, Kennesaw State University
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, Department of Neurosurgery, University of Florida
Current Position – Assistant Scientist, Department of Neurosurgery, University of Florida
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 – **Associate Professor**, Department of Radiation Oncology, Augusta University
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 – Director of Radiation Oncology Physics, Orlando Health Cancer Institute
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**, Department of Radiation Oncology, Miami School of Medicine
Current Position – **Associate Professor**, Department of Radiation Oncology, Miami School of Medicine
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 – **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 – Managing Partner, TrueNorth Medical Physics, Winter Springs, 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 – **Associate Professor**, Department of Radiation Oncology, Brown 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 – **Associate 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 – Director, Global Portfolio Solutions, Varian Medical Systems, Palo Alto, CA
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 Scientist, 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 – Therapy Medical Physicists, Lakeland Regional Cancer Center, Plantation, FL
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 – **Associate Professor**, Department of Radiation Oncology, Univ. of California – San Diego
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, hD** (Medical Physics – December 2012)
Initial Position – Research Engineer, Johnson Space Center, NASA, Houston, TX
Current Position – **Associate 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 – **Assistant Professor**, Dept. of Radiation Oncology, Medical University of South Carolina
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 – Senior 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 – Senior Therapy Physicist, St. Luke's Cancer 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 – Physical Scientist, Office of Radiation and Indoor Air, US Environmental Protection Agency
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 – **Assistant Professor**, Radiation Oncology, University of Pennsylvania
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 – **Assistant Professor**, Radiation Oncology, Medical University of South Carolina
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 –Senior Scientist, Siemens Medical, Durham, NC
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 – August 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 – August 2021)
Initial Position – Diagnostic Physics Resident, Department of Radiology, University of Illinois
Current Position - Same
Dissertation – Pediatric Radiography Dosimetry for Radiation Epidemiology
 53. **Correa-Alfonso, Camilo** (Medical Physics – August 2022)
Initial Position – Therapy Physics Resident, Dept. of Radiation Oncology, MD Anderson Cancer Center
Current Position - Same
Dissertation – Develop of internal vasculature in organs of mesh-type computational human phantoms for dose assessment in external beam radiation therapy and internal dosimetry
 54. **Domal, Sean** (Medical Physics – August 2022)
Initial Position – Therapy Physics Resident, Dept. of Radiation Oncology, UT-Southwestern Medical Center
Current Position – Same
Dissertation – Fetal dosimetry of pregnant females with applications in imaging, radiotherapy, and atomic bomb studies
-

Academic Faculty Positions – PhD Alumni

Name	Position and University
Farfan, Eduardo	Professor, Nuclear Engineering, Kennesaw State University
Jokisch, Derek	Professor and Chair, Physics and Astronomy, Francis Marion University
Kim, Eun Hee	Professor, Nuclear Engineering, Seoul National University
Kim, KwangPyo	Professor, Nuclear Eng., Kyung Hee University, Seoul, South Korea
Sehgal, Varun	Professor, Radiation Oncology, University of California - Irvine
Aydogan, Bulent	Associate Professor, Radiation Oncology, University of Chicago Medical School
Bahadori, Amir	Associate Professor, Nuclear Engineering, Kansas State University
Brindle, James	Associate Professor, Radiation Oncology, Brown University
Han, Eunyoung	Associate Professor, Radiation Oncology, MD Anderson Cancer Center
Huh, Chulhaeng	Associate Professor, Radiation Oncology, Augusta University
Johnson, Perry	Associate Professor, Radiation Oncology, University of Florida
Lee, Choonik	Associate Professor, Radiation Oncology, University of Michigan
Padgett, Kyle	Associate Professor, Radiation Oncology and Radiology, Miami School of Medicine
Padilla, Laura	Associate Professor, Radiation Oncology, Univ. of California – San Diego
Watchman, Chris	Associate Professor and Education Director, Memorial Sloan-Kettering Cancer Center
Godwin, William	Assistant Professor, Radiation Oncology, Medical University of South Carolina
Marshall, Emily	Assistant Professor, Radiology, University of Chicago
Maynard, Matthew	Assistant Professor, Radiation Oncology, Medical University of South Carolina
O'Reilly, Shannon	Assistant Professor, Radiation Oncology, University of Pennsylvania
Pafundi, Deanna	Assistant Professor, Radiation Oncology, Mayo Clinic – Jacksonville, FL
Paulbeck, Colin	Assistant Professor, Radiology, Johns Hopkins University
Schwarz, Bryan	Assistant Professor, Radiology, University of Florida

Alumni (Master's)

Texas A&M University

- 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
- Felsher, Harry, MS** (Nuclear Engineering – May 1991)
Initial Position – Technical Assistant, US Nuclear Regulatory Commission
Thesis – Design of a Portable Shield for Space Applications
- 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
- 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
- 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
- Zuzarte de Mendonca, Anne, MS** (Nuclear Engineering – August 1993)
Initial Position – Returned to France
Thesis – Trabecular Bone Dosimetry Using a Monte Carlo Code
- 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 UFDOS: 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-Alfonso, Camilo, MS** (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, MS** (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, MS** (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, MS** (Biomedical Engineering – December 2021)
Non-Thesis Project – Blood vessel modeling in the adult female breast
71. **Bolden, Ronnie, MS** (Medical Physics – August 2022)
(Entered the U.S. Navy’s Diagnostic Physics Residency Program)
Non-Thesis Project – A microscale model of the kidneys for alpha-particle dose assessment
72. **Baggett, Jared, MS** (Medical Physics – August 2022)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – Construction of a mesh-based computational phantom library of children and infants
73. **Dawson, Robert, MS** (Medical Physics – August 2022)
(Continued into PhD Program in Medical Physics)
Non-Thesis Project – Construction of a mesh-based computational phantom library of adults
74. **Carrasco-Rojas, Natalia** (Medical Physics – August 2023)
(Continued into PhD Program in Medical Physics)
Non-Thesis Topic – Internal organ refinements to the MOBY mesh-based mouse computational phantom
75. **Smither, Wyatt** (Medical Physics – August 2023)
Non-Thesis Project – Construction of a computational human phantom library of US military personnel