



## CURRICULUM VITAE WESLEY E. BOLCH

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

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## GENERAL INFORMATION

### Education

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

### Professional Certification and Registration

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

### Positions Held

#### ***Administration***

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

#### ***Academic***

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

#### ***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> <b>66</b> : 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> <b>56</b> : 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> <b>56</b> 3137–3161 (2011)]
2011	Institute of Physics Highlights of 2011 [ <i>Phys Med Biol</i> <b>56</b> 2309-2356 (2011)]
2010	Institute of Physics Highlights of 2010 [ <i>Phys Med Biol</i> <b>55</b> 1785–1814 (2010)]
2009	Institute of Physics Select Paper Award [ <i>Phys Med Biol</i> <b>54</b> 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> <b>52</b> 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> <b>48</b> 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

### 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)**

2022 – Present      Member, Steering Committee, 2023 AAPM Summer School  
2021 – Present      Member, Radiopharmaceutical Therapy Subcommittee (RTSC)  
2012 – Present      Member, Task Group No. 321 – Dosimetry in Radiographic Tomosynthesis Imaging  
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)**

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

**Wesley E. Bolch**



**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  
2020 – 2023      Full Member, Radiation Therapeutics and Biology (RTB) Study Section  
2017 – 2021      Temporary Member, Radiation Therapeutics and Biology (RTB) Study Section  
2020      Member, NCI Special Emphasis Panel, ZCA1 SRB-2 (O2), Radiobiology of high-LET Radiations  
2020      Member, NIBIB Special Emphasis Panel, ZEB1 OSR-B (O1), P41 Biomed Tech Resource Center  
2020      Member, NIAID Special Emphasis Panel ZAI1 SB-I (C1), Radiation/Nuclear Medical CMs  
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, <i>Frontiers in Nuclear Medicine</i>
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#### **Health Physics Society (HPS)**

2002 – Present	Associate Editor, <i>Health Physics</i>
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#### **Society of Nuclear Medicine (SNM)**

2002 – Present	Member, Editorial Board, <i>The Journal of Nuclear Medicine</i>
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#### **Institute of Physics (IOP)**

2006 – Present	Member, Editorial Board, <i>Physics in Medicine and Biology</i>
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#### **Springer-Verlag Publishers**

2008 – Present	Member, Editorial Board, <i>Radiation and Environmental Biophysics</i>
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#### **French Society for Radiological Protection (SFRP)**

2015 – Present	Member, Internal Corresponding Editor, <i>Radioprotection</i>
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### **External Advisory Boards**

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

2021 – Present	Chair, External Advisory Board
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#### **Nuclear Engineering Department, University of Michigan**

2010 – 2012	Member, External Advisory Board
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### **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, 3<sup>rd</sup> International Workshop, Beijing, China, August 8-9, 2011

**National Council on Radiation Protection and Measurements (NCRP)**

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

**Radiation Research Society**

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

**Society of Nuclear Medicine and Molecular Imaging (SNMMI)**

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

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

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

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

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

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

**Reviews – 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, <i>Electronic Communication and Data Retrieval</i>

## **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
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### **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

## 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 – November 2022:

- Total Citations: 17,994
- H-Index: 59
- i10-Index: 221

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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<sup>G</sup> 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<sup>c</sup>, 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<sup>c</sup>, 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 xxx** – *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 (in press).

### 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 <sup>60</sup>Co 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 Klotz 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<sup>C</sup>**, Bolch WE, and Poston, Sr. JW, "Characterization of Al<sub>2</sub>O<sub>3</sub>: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<sup>G</sup>, "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<sup>G</sup>, **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<sup>G</sup>, **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<sup>G</sup>, **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**<sup>G</sup>, Kodimer, KA<sup>G</sup>, 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**<sup>G</sup>, Kodimer KA<sup>G</sup>, 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**<sup>G</sup>, Poston, Sr. JW, and Bolch WE, "Response of the Al<sub>2</sub>O<sub>3</sub>:C thermoluminescent dosimeter in a research reactor environment," *Radiat. Prot. Manag* **13**, 32-38 (1996).
21. Wagner TH<sup>G</sup>, **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<sup>G</sup>, Patton PW<sup>G</sup>, Bouchet LG<sup>G</sup>, 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<sup>G</sup>, Wessels BW, Erdi AK, Siegel JA, Howell RW, Aydogan B<sup>G</sup>, Costes S<sup>G</sup>, 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<sup>G</sup>, **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<sup>G</sup> 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<sup>G</sup>, Jokisch DW<sup>G</sup>, 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<sup>G</sup> 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]
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30. Bishayee A, Rao DV, Bouchet LG<sup>G</sup>, 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<sup>G</sup>, 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<sup>G</sup>, 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]
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34. Rajon DA<sup>G</sup>, Jokisch DW, Patton PW<sup>G</sup>, Shah AP<sup>G</sup>, 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<sup>G</sup>, Huh CH<sup>G</sup>, 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<sup>G</sup>, Bouchet LG, Patton PW<sup>G</sup>, Rajon DA<sup>G</sup>, 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<sup>G</sup>, Patton PW<sup>G</sup>, Rajon DA<sup>G</sup>, 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]
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## PRESENTATIONS

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17. Kim KP<sup>G</sup>, 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" 6<sup>th</sup> 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" 6<sup>th</sup> 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?" 6<sup>th</sup> International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
21. Hunt JG, Watchman CJ<sup>G</sup>, and Bolch WE, "Calculation of absorbed fractions to human skeletal tissues due to alpha particles using Monte Carlo and 3D chord-based transport techniques" 6<sup>th</sup> International Workshop on Internal Dosimetry of Radionuclides, Montpellier, France, October 2-5, 2006.
22. Aydogan B<sup>G</sup>, Bolch WE, Swarts SG, Turner JE, and Marshall DT, "Monte Carlo simulation of site-specific radical attack to DNA bases", 13<sup>th</sup> International Congress on Radiation Research, San Francisco, California, July 8-12, 2007.
23. Dieudonne A<sup>F</sup>, 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<sup>G</sup>, Lee C<sup>P</sup>, Pafundi D<sup>G</sup>, 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<sup>G</sup>, Lee C<sup>G</sup>, Lodwick DL<sup>G</sup>, 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<sup>F</sup>, 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<sup>F</sup>, 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," 12<sup>th</sup> 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<sup>P</sup>, "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<sup>P</sup>, "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 <sup>141</sup>Ce, <sup>144</sup>Ce, <sup>95</sup>Zr and <sup>90</sup>Sr 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<sup>G</sup>, 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<sup>G</sup>, Pafundi D<sup>G</sup>, Lee C<sup>A</sup>, 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<sup>G</sup>, Bolch WE, Aksnes AK, Ramdahl T, Flux GD, and Sgouros G, "A trabecular and cellular model of bone marrow dosimetry for targeted <sup>223</sup>Ra therapy", 7<sup>th</sup> Symposium on Targeted Alpha Therapy, Berlin, Germany, July 18-19, 2011.
38. Lamart S, Wayson M<sup>G</sup>, Bolch WE, and Lee C<sup>A</sup>, "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<sup>G</sup>, and Degteva MO, "Evaluation of in-utero doses from maternal ingestion of strontium radionuclides at the Techa River", 13<sup>th</sup> International Congress of the International Radiation Protection Association, Glasgow, Scotland, May 13-18, 2012.
40. Sayah R, Aube A, Hérault J, Delacroix S, Demarzi L, Vabre I, Stichelbaut F, Lee C<sup>A</sup>, 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<sup>G</sup>, Rajon D<sup>G</sup>, and Bolch WE, "Alpha particle dosimetry in the trabecular skeleton", 4<sup>th</sup> International Symposium on Targeted Radiotherapy and Dosimetry (ISTARD) [Supplement to *Eur J Nucl Med* **39** S200 (2012)].
42. Geyer AM<sup>G</sup>, O'Reilly S<sup>G</sup>, Lee C<sup>A</sup>, Bolch WE, Stepusin EJ<sup>G</sup>, and Long DJ<sup>G</sup>, "The UF/NCI family of hybrid computational phantoms representing the current US population of adults and pediatric patients – applications to CT dosimetry", 4<sup>th</sup> International Workshop on Computational Phantoms, Swiss Federal Institute of Technology, Zurich, Switzerland, May 20-22, 2013.
43. Petouss-Henss 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", 4<sup>th</sup> International Workshop on Computational Phantoms, Swiss Federal Institute of Technology, Zurich, Switzerland, May 20-22, 2013.
44. Endo A, Petoussi-Henss 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", 12<sup>th</sup> 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 <sup>99m</sup>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, Hérault J, Sayah R, Tromprier 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-Henss N, Bolch WE, Lee C, and Chung BS, "Small intestine modeling method for us in surface-based computational human phantoms", 5<sup>th</sup> 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", 5<sup>th</sup> 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", 5<sup>th</sup> 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 tract in polygon-mesh versions of the ICRP reference phantoms", 5<sup>th</sup> 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", 5<sup>th</sup> 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" 6<sup>th</sup> 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<sup>G</sup>](#), 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<sup>G</sup>](#), 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<sup>G</sup>, 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<sup>G</sup>](#), Furuta T, and Bolch WE, "An algorithm for voxel-to-mesh phantom conversion with applications to radiation therapy", 7<sup>th</sup> International Workshop on Computational Human Phantoms, Munich, Germany, July 22-24, 2019.
60. [Fahey F](#), Kofler C<sup>G</sup>, Sexton-Stallone B, Reddy R, MacDougall R, and Bolch WE, "Patient-specific estimates of organ dose in paediatric <sup>18</sup>F-FDG PET/CT imaging studies", 2019 Annual Meeting of the European Association of Nuclear Medicine, Barcelona, Spain, October 12-16, 2019.
61. [Brown JL<sup>G</sup>](#), 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 <sup>99m</sup>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<sup>A</sup>, 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<sup>G</sup>](#), Domal S<sup>G</sup>, Withrow J<sup>U</sup>, Abdulla M<sup>U</sup>, 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<sup>G</sup>, Withrow J<sup>U</sup>, Domal S<sup>G</sup>, 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<sup>A</sup>, Sato T, Funamoto S, Domal S<sup>A</sup>, Correa C<sup>A</sup>, Cullings H, Egbert S, Endo A, Hertel N, Bolch WE, and Lee C<sup>A</sup>, "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<sup>G</sup>, Applegate KE, Bolch WE, Borrego D<sup>A</sup>, Marshall EL<sup>A</sup>, 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.

### 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 (ISRTD), 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 (ISRTD), 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 <sup>111</sup>In 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, Sjogreen-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)].

#### 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 Al<sub>2</sub>O<sub>3</sub>: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. JL 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 Oxide", 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", 44<sup>th</sup> 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", 44<sup>th</sup> 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", 44<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> 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", 45<sup>th</sup> Annual Meeting of the Health Physics Society, Denver, Colorado, June 25-29, 2000. [Supplement to *Health Phys.* **78** (6) S121 (2000)].
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333. Dawson RJ<sup>G</sup>, Withrow JD<sup>G</sup>, Correa-Alfonso CM<sup>A</sup>, Domal SJ<sup>A</sup>, 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<sup>G</sup>, Dawson R<sup>G</sup>, Baggett J<sup>G</sup>, Wang Y<sup>G</sup>, Smither W<sup>G</sup>, Wehmeier W<sup>G</sup>, 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<sup>G</sup>, Brown JL<sup>A</sup>, Dawson RJ<sup>G</sup>, 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<sup>G</sup>, Vehab-Dozic A<sup>U</sup>, Bolden RA, Ellis L<sup>U</sup>, Colon-Ortiz C<sup>G</sup>, Sforza A<sup>G</sup>, 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<sup>G</sup>, Choi C<sup>P</sup>, Dawson R<sup>G</sup>, 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)].

#### 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**, 5<sup>th</sup> 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**, 5<sup>th</sup> 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, 47<sup>th</sup> 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 27<sup>th</sup>, 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 27<sup>th</sup>, 2001.
8. WE Bolch, "An Assessment of Anthropometric Parameters for Scaling Radiation Dose Estimates to Active Marrow", Florida Chapter of the Health Physics Society", St. Petersburg, Florida, April 24, 2002.
9. WE Bolch, "Creation of two tomographic models of pediatric patients in the first year of life", Florida Chapter of the Health Physics Society, St. Petersburg, Florida, April 24, 2002.
10. WE Bolch, "Hybrid phantoms for patient medical dosimetry – reference, patient-dependent, and patient-specific anatomic models", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Kissimmee, Florida, March 6-7, 2009.
11. WE Bolch, "Hybrid phantoms for patient medical dosimetry – reference, patient-dependent, and patient-specific anatomic models", **Invited Speaker**, Florida Chapter of the Health Physics Society, Orlando, Florida, April 6, 2009.
12. WE Bolch, "Patient-specific nuclear medicine dosimetry – Reducing imaging dose to children", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 2-4, 2010.
13. WE Bolch, "Guidance for radiological triage using handheld instrumentation following a terrorist event", **Invited Speaker**, Florida Chapter of the Health Physics Society, Clearwater, Florida, September 24, 2010.
14. WE Bolch, PB Johnson\*, and D Borrego, "Review of NCRP Report 168 and UF research on patient doses in fluoroscopically guided interventions", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 25, 2011.
15. WE Bolch, "Computational and physical phantoms for establishing a CT organ dose library", CT Vendors Summit, **Invited Speaker**, Hosted by the UF Department of Radiology, Gainesville, Florida, May 17, 2011.
16. WE Bolch, "Feasibility of a patient-organ dose tracking system for diagnostic imaging – CT, fluoroscopy, and nuclear medicine", **Invited Speaker**, Florida Chapter of the American Association of Physicists in Medicine, Orlando, Florida, March 28, 2014.
17. DW Jokisch and WE Bolch, "Recent ICRP Recommendations on Internal Dosimetry", North Carolina Chapter of the Health Physics Society, Raleigh, NC, March 2-3, 2017.
18. WE Bolch, **Invited Speaker**, "Update on Activities of the International Commission on Radiological Protection", Florida Chapter of the Health Physics Society, Lake Worth, FL, April 6-7, 2017.

#### Local Seminars and Lectures – WE Bolch Presenter

1. "New Frontiers in Internal Radiation Dosimetry", Department of Nuclear Engineering Sciences, University of Florida, Gainesville, Florida, July 11, 1994.
2. "Recent Advances in Nuclear Medicine Dosimetry", Department of Nuclear Engineering Sciences, University of Florida, Gainesville, Florida, April 6, 1995.
3. "NMR Microscopy of Trabecular Bone", Biomedical Engineering Seminar Series, April 6, 1999.
4. "Research in Internal Dosimetry Biokinetic Models for the CDC", Department of Nuclear and Radiological Engineering, University of Florida, September 7, 2000.
5. "Radionuclide Therapies for Cancer – Need for Predictive Models of Marrow Toxicity", Seminar, Department of Nuclear & Radiological Engineering, October 16, 2003.
6. "Radionuclide Therapies for Cancer – Need for Predictive Models of Marrow Toxicity", Seminar, Department of Biomedical Engineering, January 27, 2004.

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

## SPONSORED RESEARCH ACTIVITIES

### Current Research Grants and Contracts

1. *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.
2. *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](#))
3. *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](#))
4. *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](#)).
5. *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](#)).
6. *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](#)).

#### Summary of Currently Active External Grants

Role	Total	Direct Costs	Indirect Costs
Principal Investigator	\$6,077,136	\$4,268,570	\$1,808,566
Co-Principal Investigator	\$0	\$0	\$0
Investigator	\$0	\$0	\$0
Academic Sponsor	\$0	\$0	\$0
<b>Totals</b>	<b>\$6,077,136</b>	<b>\$4,268,570</b>	<b>\$1,808,566</b>

#### Summary of Currently Active Internal Grants

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

## Past Research Grants and Contracts

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



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



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

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

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



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

***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
<b>Totals</b>	<b>\$12,005,790</b>	<b>\$9,065,035</b>	<b>\$2,940,755</b>

***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
<b>Totals</b>	<b>\$366,113</b>	<b>\$366,113</b>	<b>\$0</b>

## 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 6<sup>th</sup> 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 Jülich, 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 3<sup>rd</sup> 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, 14<sup>th</sup> 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 3<sup>rd</sup> 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 8<sup>th</sup> International Symposium on Solid State Dosimetry (ISSSD), National Institute of Nuclear Research in Mexico City, Mexico.
- **October 22-25, 2012**, Invited attendee to the 9<sup>th</sup> 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, Malmö, 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 1<sup>st</sup> 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.

### International Research Grants

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

- *Non-Reference Computational Phantoms Applied to an Expanded Library of External Dose Coefficients – Movement Toward Individualized Radiation Risk*, Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD), Paris, France, \$44,069 (direct), \$58,927 (total), Wesley E. Bolch, **Principal Investigator**, September 15, 2017 to November 30, 2018, Internal Review, 1 Student **(UF Project P0078985)**
- *Pregnant Female Phantoms for Organ Dosimetry of the RERF Life Span Study*, Radiation Effects Research Foundation, Hiroshima, Japan, Wesley E. Bolch, **Principal Investigator**, \$107,148 (direct), \$152,093 (total), Internal Review, 2 Students **(UF Project P0075724)**

### International Research Collaborations

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

## **HONORS - Academic**

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

## **AWARDS - Professional**

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

## **AWARDS - Publications**

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



## TEACHING

### **Graduate Courses – University of Florida**

<b>Course</b>	<b>Title</b>	<b>Terms Taught</b>
BME 6535	Radiation Physics, Measurement, and Dosimetry	Fall 2012 – Present
ENU 6623	Patient Dosimetry in Medical Imaging and Therapy	Spring 2019 - Present
<b>Past Courses</b>		
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**

<b>Course</b>	<b>Title</b>	<b>Terms Taught</b>
BME 4531	Medical Imaging	Spring 2021 – Present
BME 4931	Patient Dosimetry in Medical Imaging and Therapy	Spring 2019 - Present
<b>Past Courses</b>		
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

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## 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

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### **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.

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### 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

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### 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*

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### 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*

### Current Students (PhD)

1. **Baggett, Jared** (Medical Physics)  
Dissertation Topic – *Computed tomography dosimetry across the UF/MSK computational phantom library*
  2. **Dawson, Robert** (Medical Physics)  
Dissertation Topic – *Computed tomography dosimetry across the UF/MSK computational phantom library*
  3. **Dinwiddie, Laura** (Biomedical Engineering)  
Thesis Topic – *Physical phantoms for validating MC models of tube current modulation in CT imaging*
  4. **President, Bonnie** (Medical Physics), Graduate Research Assistant  
Dissertation Topic – *Mesh-based 3D tissue models for alpha-emitter radiopharmaceutical therapy*
  5. **Wang, Yitian** (Biomedical Engineering)  
Thesis Topic – *Mesh-based microscale models of the human skeletal tissues*
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### Current Students (Master's)

1. **Bushloper, Madison** (Medical Physics)  
Thesis Topic – *TBD*
  2. **Carrasco-Rojas, Natalia** (Medical Physics)  
Thesis Topic – *Modeling of the internal blood vasculature of the MOBY mesh-based mouse phantom*
  3. **Colon-Ortiz, Carlos** (Medical Physics)  
Thesis Topic – *TBD*
  4. **Sforza, Andrew** (Medical Physics)  
Thesis Topic – *MicroCT imaging and modeling to the blood vasculature of the laboratory mouse*
  5. **Smither, Wyatt** (Medical Physics)  
Thesis Topic – *Construction of a computational human phantom library of US military personnel*
  6. **Wehmeier, Stefan** (Medical Physics)  
Thesis Topic – *Construction of the slice-specific dosimetry library for computed tomography imaging*
  7. **Withrow, Julia** (Medical Physics)  
Thesis Topic – *Advanced techniques for modeling blood self-absorption in radiopharmaceutical dosimetry*
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### Current Students (Undergraduates)

1. **Dozic, Abdul-Vehab** (Physics / Pre-MP – Fall 2020) – University Scholar
2. **Ellis, Lauren** (Biomedical Engineering / Physics – Summer 2021) – University Scholar
3. **Fuentes-Alfonso, Lazaro** (Nuclear Engineering – Fall 2022) – University Scholar
4. **Pathak, Shreya** (Yale University – Fall 2020)
5. **Salminen, Spencer** (Nuclear Engineering – Spring 2023) – University Scholar
6. **Zorrilla, Alexander** (Post-Baccalaureate / Pre-Med – Fall 2021)



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## Alumni (PhD)

### Texas A&M University

1. **How Mooi Lau, PhD** (Health Physics – August 1994)  
*Initial Position* – Research Engineer, Nuclear Energy Unit, Puspatti 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 T<sub>1</sub> 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, Amir, PhD** (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
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## Academic Faculty Positions – PhD Alumni

<i>Name</i>	<i>Position and University</i>
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, Eunyong	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

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8. **Delisle, Christine, MS** (Health Physics – August 1994)  
*Initial Position* – Returned to France  
*Thesis* – Crew Cancer-Risk Reduction by Utilizing Nuclear Propulsion in Manned Space Missions
9. **Crady, Donald, MS** (Health Physics – August 1994)  
*Current Employment* – Radiation Protection Officer, U.S. Army  
*Non-Thesis Project* – An Improved Dosimetric Model of the Brain
10. **Bouchet, Lionel, MS** (Nuclear Engineering – December 1994)  
(Continued into UF PhD Program in HP)  
*Thesis* – Electron Dosimetry Studies in the Brain
11. **Parry, Robert, MS** (Health Physics – May 1995)  
*Initial Position* – Assistant Radiation Safety Officer, Ben Taub Hospital, Houston, Texas, Baylor College of Medicine.  
*Thesis* – S-values for Bone-Seeking Radionuclides
12. **Walker, Scottie, MS** (Health Physics – May 1995)  
*Initial Position* – Health Physicist, Sandia National Laboratory  
*Thesis* – Experimental Verification of Monte Carlo Transport Calculations
13. **Charlton, Michael, MS** (Health Physics – August 1995)  
*Initial Position* – Assistant Radiation Safety Officer, Texas A&M University  
*Thesis* – Beta-Particle Response of TLDs Exposed to Radioactive Noble Gases

University of Florida

14. **Reyes, Ricardo, MS** (Health Physics – August 1996)  
*Initial Position* – Nuclear Medical Science Officer, Army Medical Corp, Belcamp, Maryland  
*Thesis* – Estimates of Organ Doses for Pediatric Patients Undergoing Diagnostic X-Ray Procedures
15. **Chohan, Talal, MS** (Health Physics – December 1996)  
*Initial Position* – Medical Physicist, OnCURE Medical Corporation, Jacksonville, Florida  
*Thesis* – A Survey of Plain Film X-Ray Examination Parameters for Pediatric Patients
16. **Mohr, Cecile, MS** (Medical Physics – May 1997)  
*Initial Position* – Sales Engineering, Siemens, Medical Engineering Division, Erlangen, Germany,  
*Non-Thesis Project* – ROC Analysis of Screen-Film versus CR Radiographs
17. **Thomsen, Loren, MS** (Health Physics – August 1997),  
*Initial Position* – Service Engineer, National Instruments, Inc., Austin, TX  
*Thesis* – Virtual Instrumentation to Replace Nuclear Instrumentation Modules in Radiation Measurement Education
18. **Jokisch, Derek, MS** (Health Physics – August 1997),  
(Continued into PhD Program in MHP)  
*Thesis* – NMR Imaging as a Tool for Studying Beta-Dosimetry in Trabecular Bone and Red Marrow Regions
19. **Wagner, Tom, MS** (Health Physics – August 1997)  
(Continued into PhD Program in MP)  
*Non-Thesis Project* – Design of an Improved Radiation Detection and Instrumentation Laboratory Course Curriculum
20. **Blanco, Pablo, MS** (Health Physics – August 1998),  
*Initial Position* – Commission for Atomic Energy (CEA), France  
*Thesis* – Revisions and Radiation Transport in Mathematical Models of Adult and Pediatric Patients
21. **Patton, Phillip, PhD** (Health Physics – August 1998)  
(Continued into PhD Program in MHP)  
*Thesis* – NMR Assessment of Chord Distributions for Trabecular Bone Dosimetry: Effects of Sample Freezing & Thawing
22. **Sun, Caijun, MS** (Medical Physics – May 1998)  
(Continued into PhD Program in ECE)  
*Thesis* – Computational Models of Radiation Dose Distribution Around Radioactive Stents
23. **Sehgal, Varun, MS** (Medical Physics)  
(Continued into PhD Program in BME)  
*Thesis* – Monte Carlo Characterization of the Dose Distribution Near P-32-Coated Stents

24. **Pomije, Brian, MS** (Medical Physics – August 1999),  
*Initial Position* – Navy Therapy Physicist stationed at San Diego  
*Thesis* – Radiation Dosimetry Of Newborn Patients From Diagnostic Fluoroscopic Examinations: Voiding Cystourethrograms (VCUGs)
25. **Farfan, Eduardo, MS** (Health Physics – May 1999)  
(Continued into PhD Program in HP)  
*Thesis* – Probabilistic Lung Dosimetry with Application to Uranium Dioxide and Octoxide Aerosols
26. **Rajon, Didier, MS** (Health Physics - August 1999)  
(Continued into PhD Program in HP)  
*Thesis* – Trabecular Bone Dosimetry: Assessment of Minimum Voxel Size for Nuclear Magnetic Resonance Imaging
27. **Bourke, Vincent, MS** (Health Physics – December 1999),  
*Initial Position* – Doctoral Program at University of Texas at Dallas  
*Non-Thesis Project* – A Visual Basic Teaching Module for Radiochemistry
28. **Wilson, Kathryn, MS** (Health Physics – December 2000),  
(Continued into PhD Program in MP)  
*Thesis* – A Comparison Study of Dosimeters: TLDS versus Double Strand Breaks in DNA Analyzed by Capillary Electrophoresis
29. **Sessions, Jennifer, MS** (Biomedical Engineering – August 2001),  
*Initial Position* – Biomedical Engineer, Zmed, Inc.  
*Thesis* – The Determination of Effective Doses for Pediatric Fluoroscopy Studies
30. **Shah, Amish, MS** (Biomedical Engineering – December 2001)  
(Continued into PhD Program in Biomedical Engineering)  
*Thesis* – Geometrical Distribution of Adipocytes within Normal Bone Marrow: Considerations for 3D Skeletal Dosimetry Models
26. **Nipper, Josh, MS** (Biomedical Engineering – May 2002),  
*Initial Position* – Biomedical Engineer, U.S. Food and Drug Administration  
*Thesis* – Two voxelized tomographic models of pediatric patients in the first year of life
27. **Kim, Tae-Hoon, MS** (Health Physics – August 2002),  
*Initial Position* – Officer, Republic of Korea Navy  
*Thesis* – Considerations of stochastic variability in the ICRP 30 retention equations
28. **Staton, Robert, MS** (Medical Physics – May 2003)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – A tomographic computational model for radiation dosimetry in pediatric radiology
29. **Pazik, Frank, MS** (Medical Physics – August 2003),  
*Initial Position* – Medical Physicist, Charleston, South Carolina  
*Thesis* – Organ doses in pediatric fluoroscopy
30. **Nelly Volland, MS** (Biomedical Engineering – August 2003)  
(Continued into PhD Program in BME)  
*Thesis* – Organ volumes in pediatric patients assessed via computed tomography image segmentation
31. **Williams, Matt, MS** (Medical Physics – May 2005),  
*Initial Position* – Medical Physicist, Mobile Infirmary Medical Center, Mobile, AL  
*Thesis* – Computed tomography dose index and beam profile characterization studies for the Siemens SOMATON Sensation 16 CT scanner for simulations of pediatric patient organ dose
32. **Hasenauer, Deanna, MS** (Health Physics – May 2006)  
(Continued into PhD Program in Health Physics)  
*Non-Thesis Project* – An image-based beta-particle skeletal dosimetry model for the 9-month male
33. **Kielar, Kayla, MS** (Health Physics – May 2006)  
(Continued into PhD Program in Health Physics)  
*Non-Thesis Project* – A skeletal reference dosimetry model for the adult female
34. **Kresge, Wendy, MS** (Medical Physics – December 2006)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Correlations between volumetric BMD and marrow volume fractions in cancellous bone
35. **Ambrose, Robert, MS** (Medical Physics – December 2006)

*Initial Position* – Tomotherapy, Inc., Madison, Wisconsin

*Thesis* – Effective dose conversion coefficients for medical emergency management

36. **Hurtado, Jorge, MS** (Health Physics – December 2006)

(Continued into PhD Program in Medical Physics)

*Thesis* – Measurement-to-activity conversion coefficients for medical emergency management

37. **Hough, Matt, MS** (Health Physics – May 2007)

(Continued into PhD Program in Health Physics)

*Non-Thesis Project* – A skeletal reference dosimetry model for the 40-year male

38. **Padilla, Laura, MS** (Medical Physics – May 2008)

(Continued into PhD Program in Medical Physics)

*Thesis* – 3D canine hybrid phantom for radiopharmaceutical therapy dosimetry

39. **Lodwick, Daniel, MS** (Nuclear Engineering – May 2008)

(Continued into MD Program at the University of Florida)

*Thesis* – Hybrid computational phantoms of the 1, 5, and 10 year male and female reference individuals.

40. **Maynard, Matthew, MS** (Medical Physics – August 2009)

(Continued into PhD Program in Medical Physics)

*Thesis* – Skeletal dose estimates for radiostrontium and radioyttrium in the ICRP reference 10, 20, and 30 week fetus.

41. **Sexton, Jenna, MS** (Health Physics – December 2009)

(Continued into PhD Program in Medical Physics)

*Non-Thesis Project* – Lung & systemic retention of Al, Ta, Ti, and W nanoparticles following inhalation exposures.

42. **Sinclair, Lindsay, MS** (Medical Physics – December 2009)

(Continued into PhD Program in Medical Physics)

*Non-Thesis Project* – Image-based skeletal tissue model for the ICRP reference adult female

43. **Wayson, Michael, MS** (Medical Physics – December 2009)

(Continued into PhD Program in Medical Physics)

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

44. **Bahadori, Amir MS** (Medical Physics – May 2010)

(Continued into PhD Program in Medical Physics)

*Thesis* – Skeletal neutron dose response functions – A new protocol for evaluating dose to active marrow and bone endosteum.

45. **Geyer, John, MS** (Medical Physics – August 2010)

(Continued into MD Program at the University of Florida)

*Thesis* – Skeletal dosimetry models of the 15 and 20 week fetus.

46. **Cieply, Alyson, MS** (Medical Physics – December 2010)

*Initial Position* – seeking employment

*Non-Thesis Project* – Measurement of lung fluid solubility of nanoparticle metals

47. **Juneja, Badal, MS** (Medical Physics – May 2011)

(Continued into PhD Program in Medical Physics)

*Thesis* – Software for first responders allowing for interpretation of portable survey meter responses in radiological triage decisions

48. **Long, Daniel, MS** (Medical Physics – August 2011)

(Continued into PhD Program in Medical Physics)

*Thesis* – Organ doses for patients undergoing computed tomography examinations: Validation of Monte Carlo calculations using anthropomorphic phantoms

49. **Abadia, Andres, MS** (Medical Physics – May 2012)

(Continued into PhD Program in Medical Physics)

*Thesis* – Alternatives to the effective dose for stochastic risk assessment in medical imaging

50. **Geyer, Amy, MS** (Medical Physics – May 2012)

(Continued into PhD Program in Medical Physics)

*Thesis* – The UF/NCI family of hybrid computational phantoms representing the current US population of male and female children and adolescents – Applications to CT dosimetry

51. **Borrego, David, PhD** (Medical Physics – December 2012)  
(Continued into PhD Program in Medical Physics)  
*Dissertation* – In-clinic calibration of a kerma-area product meter at different radiation qualities for the assessment of skin doses incurred during interventional fluoroscopic procedures.
52. **Long, Nelia, MS** (Medical Physics – May 2013)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Fetal radiation doses in computed tomography examinations of pregnant patients: A comparison between whole-body and individual organ doses at three different gestational ages
53. **O'Reilly, Shannon, MS** (Medical Physics – August 2013)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – An image-based skeletal dosimetry model for the ICRP reference adult female – internal electron sources
54. **Ficarrotta, Kayla, MS** (Medical Physics – December 2013)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – A method of in-phantom organ dosimetry utilizing optically stimulated luminescent dosimeters in Toshiba computed tomography examinations for validation of Monte Carlo calculations of patient organ doses
55. **Godwin, William, MS** (Medical Physics – December 2013)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Development of intake retention and excretion fractions used in bioassay programs for metallic nanoparticle aerosols produced in modern munitions development
56. **Stepusin, Elliott, MS** (Medical Physics – May 2014)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Organ and effective dose coefficients for common computed tomography protocols using the UF/NCI family of computational reference phantoms
57. **Sands, Michelle, MS** (Medical Physics – August 2014)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Hybrid computational phantom of the Labrador with detailed skeletal model for radiopharmaceutical therapy dosimetry
58. **Schwarz, Bryan, MS** (Medical Physics – August 2014)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Organ dose coefficients for Asian-scaled computational phantoms resulting from external exposures at the Techa River due to ground contamination
59. **Petroccia, Heather, MS** (Medical Physics – December 2014)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – A feasibility study of the use of hybrid computational phantoms for improved historical dose reconstruction in the study of late radiation effects for Hodgkin's lymphoma.
60. **Shang, Michael, MS** (Medical Physics – December 2015)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – A hybrid computational phantom of the beagle with a detailed skeletal model for radiopharmaceutical therapy dosimetry.
61. **Marshall, Emily, MS** (Medical Physics – December 2015)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Validating the University of Florida / National Cancer Institute family of hybrid computational phantoms for cardiac fluoroscopic studies.
62. **Olguin, Edmond, MS** (Medical Physics – December 2015)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – Development of UFDose: A software for in-clinic assessment of patient organ dose in nuclear medicine.
63. **Brown, Justin, MS** (Medical Physics – December 2017)  
(Continued into PhD Program in Medical Physics)  
*Thesis* – A computational method for voxel to polygon mesh conversion of anatomic computational human phantoms and aircrew doses from cosmic-ray sources



64. **Paulbeck, Colin, MS** (Medical Physics – December 2017)  
 (Continued into PhD Program in Medical Physics)  
*Thesis* – Consideration of electron sources in the internal dosimetry of the adult pregnant female at three stages of gestation.
65. **Kofler, Cameron, MS** (Medical Physics – August 2018)  
 (Continued into PhD Program in Medical Physics)  
*Non-Thesis Project*– Organ doses and cancer risks In pediatric patients undergoing PET/CT using  $^{18}\text{F}$ -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