

CURRICULUM VITAE

George Tabatadze, Ph.D.

U.S. Transuranium and Uranium Registries
College of Pharmacy and Pharmaceutical Sciences,
Washington State University
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EDUCATION

2007 – 2012, PhD in Applied Physics (Health Physics)

Idaho State University, Department of Physics (Pocatello, ID): "USTUR Case 0102 Voxel Phantom for External Gamma-Ray Detector Response Simulation"

2004 – 2007, MS in Health Physics (Medical Physics)

University of Nevada Las Vegas, Department of Health Physics and Diagnostic Sciences (Las Vegas, NV): "Alpha Particle Transport in Trabecular Bone Images"

1999 – 2003, BS in Physics and Computer Science

Tbilisi State University, Department of Physics (Tbilisi, Rep. of Georgia)

PROFESSIONAL EXPERIENCE

04/2017 – Present, Research Assistant Professor

United States Transuranium and Uranium Registries, College of Pharmacy, Washington State University (Richland, WA)

08/2014 – 03/2017, Research Associate

United States Transuranium and Uranium Registries, College of Pharmacy, Washington State University (Richland, WA)

08/2012 – 05/2014, Visiting Assistant Professor

Department of Nuclear Engineering and Health Physics, Idaho State University (Pocatello, ID)

07/2013 – 08/2013, Scientific Consultant

Center for Advanced Energy Studies, (Idaho Falls, ID)

05/2008 – 08/2012, Research Assistant

Environmental Assessment Laboratory, Idaho State University (Pocatello, ID)

08/2007 – 05/2008, Teaching Assistant

Department of Physics, Idaho State University (Pocatello, ID)

08/2004 – 06/2007, Graduate Assistant

Department of Health Physics and Diagnostic Sciences, University of Nevada Las Vegas (Las Vegas, NV)

TEACHING PORTFOLIO

Lectures and Course Development (WSU)

- ENVR_SCI 520/520L - Radiation Instrumentation, Fall 2015, Graduate Certificate Program in Radiation Protection at Washington State University, Tri Cities.

Lectures and Course Development (ISU)

- Quantitative Methods in Physics, 1-semester graduate level course, Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- Radiation Physics, 1 semester graduate and upper-level undergraduate course (teaching methods: on campus, televised to extended campus, online), Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- External Dosimetry, 1-semester graduate and upper-level undergraduate course (on campus, televised, online), Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- Radiation Regulations, 1-semester graduate level course (on campus, televised, online), Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- Topics in Health Physics, 2-semester graduate and upper-level undergraduate course (on campus, televised, online), Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- ABHP Review, 1 semester graduate level course (on campus, televised, online), Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID
- Medical Applications in Engineering and Physics – Medical Imaging Physics (on campus, televised, online). 1 semester graduate level course, Department of Nuclear Engineering and Health Physics, Idaho State University, Pocatello, ID

PROFESSIONAL AFFILIATIONS

- Columbia Chapter of Health Physics Society, 2014 – present
- Georgian Health Physics Association, 2007 – present
- Health Physics Society, 2005 – present

INSTITUTIONAL SERVICE

Board of Trustees

Herbert M. Parker Foundation, Washington State University, 2019 – present

Advisory Board

- Washington State University Radiation Safety Committee, 2019 – present
- Graduate Certificate Program in Radiation Protection, Washington State University, 2016 – present

PROFESSIONAL SERVICE

Local, National, and International Professional Organizations

- General Chair – Herbert M Parker Symposium (2021), Columbia Chapter of Health Physics Society, 2018 – Present
- Member – Herbert M Parker Scholarship Committee, Columbia Chapter of Health Physics Society, 2020 – Present
- Liaison - Herbert M. Parker Foundation liaison to Columbia Chapter of Health Physics Society, 2019 – present
- Webmaster – Columbia Chapter of Health Physics Society, 2019 – present
- Member – Health Physics Society, International Collaboration Committee, 2015 – present
- Chair, Long-Range Planning Committee – Columbia Chapter of Health Physics Society, 2019 – 2020
- Past President – Columbia Chapter of Health Physics Society, 2019 – 2020
- Founding Member – Georgian Health Physics Association, 2007 – present
- Website Editor – Georgian Health Physics Association, 2007 – present
- President – Columbia Chapter of Health Physics Society, 2018 – 2019
- President-elect – Columbia Chapter of Health Physics Society, 2017 – 2018
- Chair, Program Committee – Columbia Chapter of Health Physics Society, 2017 – 2018

HONORS AND AWARDS

Scholarships

- Health Physics Society Fellowship, Richard J. Burk, Jr. Fellowship award, 2010

Affiliations

- Center for Advanced Energy Studies Affiliate, 2013 – 2014

Travel Grants

- Travel grant, 57th Health Physics Society Annual Meeting, Sacramento, CA, 22 – 26 July, 2012
- Travel grant, 56th Health Physics Society Annual Meeting, Palm Beach, FL, 26 – 30 June, 2011
- Travel grant, 54th Health Physics Society Annual Meeting, Minneapolis, MN, 12 – 16 July, 2009
- Travel grant, 51st Health Physics Society Annual Meeting, Providence, RI, 25 – 29 June, 2006

PEER-REVIEWED JOURNAL PUBLICATIONS

6. Dumit S, Breustedt B, Avtandilashvili M, McComish SL, Strom DJ, **Tabatadze G**, Tolmachev SY. Response to the Letter to the Editor, 'Comments on "Improved modeling of plutonium-DTPA decorporation," (Radiat Res 2019; 191:201-10) by Gremy and Miccoli'. Radiation Research 192: 682-683; 2019.
5. Dumit S, Avtandilashvili M, McComish SL, Strom DJ, **Tabatadze G**, Tolmachev SY. Validation of a system of models for plutonium decorporation therapy. Radiation and Environmental Biophysics 58: 227-235; 2019
4. Dumit S, Avtandilashvili M, Strom DJ, McComish SL, **Tabatadze G**, Tolmachev SY. Improved modeling of plutonium-DTPA decorporation. Radiation Research 191: 201-210; 2019.
3. **Tabatadze G**, Miller BW, Tolmachev SY. Mapping ²⁴¹Am spatial distribution within anatomical bone structures using digital autoradiography. Health Physics 117: 179-186; 2019.
2. Khalaf M, Brey RR, Harris JT, Derryberry D, **Tabatadze G**. Monte Carlo Simulation of In-Vivo Measurement of the Most Suitable Knee Position for the Optimal Measurement of Activity. Health Physics, 104(4):405-412, 2013.
1. **Tabatadze G.**, Brey RR, Kramer GH, Capello K, Meldrum DJ. Re-evaluation of ²⁴¹Am Content in the USTUR Case 0102 Leg Phantom. Health Physics, 104(1):1-8, 2013.

PEER-REVIEWED CONFERENCE ABSTRACTS

12. Strom DJ, Dumit S, Avtandilashvili M, McComish SL, **Tabatadze G**, Tolmachev SY. Cylindrical representations of recycling biokinetic models. Health Physics 117: 78; 2019.
11. Dumit S, Avtandilashvili M, Strom DJ, McComish SL, **Tabatadze G**, Tolmachev SY. Four-decade follow-up of plutonium-contaminated puncture wound treated with Ca-DTPA. 64th Annual Meeting of the Radiation Research Society, Chicago, IL: ePage; 2018.

10. Tolmachev SY, Thomas EM, **Tabatadze G**. Analysis of actinides: Important things we forget. 11th Conference on Methods and Applications of Radioanalytical Chemistry. Book of Abstracts, p.63, 2018.
9. Dumit S, Strom DJ, McComish SL, Avtandilashvili M, **Tabatadze G**, Tolmachev SY. New Biokinetic Model Simultaneously Fits Ca-DTPA Affected and Non-affected Urine Bioassay Data After Plutonium Contamination. *Abstract*, Health Physics, Vol. 115(Suppl. 1):S83 2018.
8. **Tabatadze G**, Avtandilashvili M, Tolmachev S. Plutonium in Tissues of Occupationally Exposed Individuals. *Abstract*, Health Physics, Vol. 113(Suppl. 1):S94 2017.
7. **Tabatadze G**, Miller B, Tolmachev S. Digital Autoradiography of ^{241}Am Spatial Distribution within Trabecular Bone Regions; *Abstract*, Health Physics, Vol. 111(Suppl. 1):S41 2016.
6. Miller B, **Tabatadze G**, Dion M, Frost S, Orozco J, Press O, Sandmaier B, Miederer M, Brochhausen C, Tolmachev S. Quantitative Single-Particle Digital Autoradiography With Ionizing-Radiation Quantum Imaging Detector; *Abstract*, Health Physics, Vol. 109(Suppl. 1):S9, 2015.
5. **Tabatadze G**, Miller B, Tolmachev S. Radionuclide Distribution Measurement Within Anatomical Bone Structures Using Digital Autoradiography; *Abstract*, Health Physics, Vol. 109(Suppl. 1):S9, 2015.
4. **Tabatadze G**, Brey RR. ^{241}Am Whole Body Counting Efficiency Dependence on Bone Density Variation. *Abstract*, Health Physics, Vol. 103(Suppl. 1):S16, 2012.
3. **Tabatadze G**, Brey R, James T. Modeling Am-241 Distribution in Bones of the USTUR Case 0102 Human Leg Phantom; *Abstract*, Health Physics, Vol. 101(Suppl. 1):S14, 2011.
2. **Tabatadze G**, Brey R, James T, Theel D, Todd S. USTUR Case 0102 CT Image Processing Techniques for Voxel Phantom Development; *Abstract*, Health Physics, Vol. 97(Suppl. 1):S11, 2009.
1. **Tabatadze G**, Brey RR, James AC, Neba NR. USTUR Case 0102 Voxel Phantom for External Radiation Detector Response Simulation; *Abstract*, Health Physics, Vol. 95(Suppl. 1):S10, 2008.

CONFERENCE PRESENTATIONS

Invited Presentations

3. Radiochemical Analysis of Plutonium in Tissues from Former Nuclear Workers. Seminar, Oregon State University, School of Nuclear Science and Engineering, Corvallis, OR, 27 November, 2017. †
2. Radionuclide Distribution Measurement within Anatomical Bone Structures using Digital Autoradiography. Technical Meeting, Columbia Chapter of Health Physics Society, Richland, WA, 19 November 2015. †
1. Analysis of High Fired Plutonium Oxide and Other Actinides in MAPEP Soil Samples. Technical Meeting, Columbia Chapter of Health Physics Society, Richland, WA, 19 November 2015. †

Podium Presentations

9. Cylindrical representations of recycling biokinetic models. 64th Annual Meeting of the Health Physics society, Orlando, FL, 7 – 11 July, 2019.
8. New biokinetic model simultaneously fits Ca-DTPA affected and non-affected urine bioassay data after plutonium contamination. 63rd Annual Meeting of the Health Physics Society, Cleveland, OH, 15 – 19 July, 2018.
7. Analysis of 'high-fired' plutonium oxide in tissues of occupationally exposed workers. 6th Asia-Pacific Symposium on Radiochemistry. ICC Jeju, Jeju Island, Korea, 17-22 September, 2017.
6. Digital Autoradiography of Bone-Seeking Radionuclides in Human. 6th Asia-Pacific Symposium on Radiochemistry, ICC Jeju, Jeju Island, Korea, 17-22 September, 2017. †
5. Plutonium in Tissues of Occupationally Exposed Individuals. 62nd Annual Health Physics Society Meeting, Raleigh, NC, 9-13 July, 2017. †
4. Digital Autoradiography of ²⁴¹Am Spatial Distribution within Trabecular Bone Regions. 61st Annual Health Physics Society Meeting, Spokane, WA, 17-21 July, 2016. †
3. Analysis of High-Fired Plutonium Oxide and Other Actinides in MAPEP Soil Samples; 61st Annual Radiobioassay and Radiochemical Measurements Conference, Iowa City, IA, 25-30 October, 2015. †

2. Radionuclide Distribution Measurement Within Anatomical Bone Structures Using Digital Autoradiography. 60th Annual Health Physics Society Meeting, Indianapolis, IN, 12-16 July, 2015. †
1. USTUR Case 0102 Voxel Phantom for External Radiation Detector Response Simulation. Health Physics Society's 12th Annual John Horan Symposium, Salt Lake City, UT, 25 April, 2008. †

Poster Presentations

7. New compartmental model for plutonium decorporation therapy. 64th Annual Meeting of the Radiation Research Society, Chicago, IL, 23-26 September, 2018.
6. New Biokinetic Model Simultaneously Fits Ca-DTPA Affected and Non-affected Urine Bioassay Data After Plutonium Contamination. BRASCON 2018, Columbus, OH, 23-24 June, 2018
5. Americium-241 Whole Body Counting Efficiency Dependence on Bone Density Variation. 57th Annual Health Physics Society Meeting, Sacramento, CA, 22-26 July, 2012. †
4. Modeling Am-241 Distribution in Bones of the USTUR Case 0102 Human Leg Phantom. 56th Annual Health Physics Society Meeting, Palm Beach, FL, 26-30 June, 2011. †
3. USTUR Case 0102 CT Image Processing Techniques for Voxel Phantom Development. 54th Annual Health Physics Society Meeting, Minneapolis, MN, 12-16 July, 2009. †
2. USTUR Case 0102 Voxel Phantom for External Radiation Detector Response Simulation. 53rd Annual Health Physics Society Meeting, Pittsburgh, PA, 13-17 July, 2008. †
1. Alpha Particle Transport in Voxelized Trabecular Bone Images. 51st Annual Health Physics Society Meeting, Providence, RI, 25-29 June, 2006. †

† Presenter