

CONTACT  
INFORMATION

## Snail Mail and Email Address

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 Division of Medical Physics and Engineering  
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## Online Profiles

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*www:* Google Scholar  
*www:* ResearchGate  
*www:* Scopus

CURRENT  
ACADEMIC  
APPOINTMENTS

## Current Academic Appointments

**Associate Professor** September 2017 to present  
 ◇ UTSW Medical Center, Dallas, TX, Department of Radiation Oncology  
 Division of Medical Physics and Engineering

**Adjunct Faculty** September 2009 to present  
 ◇ UTSW Medical Center, Dallas, TX, School of Health Professions  
 Department of Health Care Sciences

PREVIOUS  
ACADEMIC  
APPOINTMENTS

## Previous Academic Appointments

**Assistant Professor** July 2008 to September 2017  
 ◇ UT Southwestern Medical Center, Dallas, TX  
 Department of Radiation Oncology

**Medical Physics Resident** July 2006 to July 2008  
 ◇ Virginia Commonwealth University, Richmond, VA  
 Department of Radiation Oncology

**Postdoctoral Researcher** January 2005 to June 2006  
 ◇ Washington University School of Medicine, Saint Louis, MO  
 Department of Radiation Oncology

## EDUCATION

## Education

**Ph.D. Physics** December 2004  
 ◇ Kent State University, Kent, OH  
 Doctor of Philosophy Experimental solid-state physics  
 ◇ Thesis: *Light Scattering Studies of Dynamics of Bent-Core Liquid Crystals*

**B.S. Physics** July 1998  
 ◇ University of Belgrade, Belgrade, Serbia  
 Bachelor of Science Physics, Experimental Physics

**CERTIFICATION  
AND LICENSURE**

**Certification and Licensure**

- Diplomate of American Board of Radiology (DABR)** June 2009 to present
- ◇ **The American Board of Radiology**
  - ★ Board Certified in Therapeutic Radiologic Physics
- TX Medical Physics License** July 2008 to present
- ◇ **The Texas Medical Board Regulatory Programs**
  - ★ Texas Medical Physics License FMP00010227

**PROFESSIONAL  
MEMBERSHIPS**

**Professional Memberships**

- The American Association of Physicists in Medicine (AAPM)**
- ★ Junior Membership January 2004 to December 2005
  - ★ Full Membership January 2006 to present
- The American Society for Radiation Oncology (ASTRO)**
- ★ Associate Membership October 2008 to present
- The American Physical Society (APS)**
- ★ Regular Membership January 2001 to present

**AWARDED  
GRANTS**

**Awarded Grants**

- [1] **Grantor: National Institutes of Health (NIH)**  
**Project Title: R01 CA235723-01 An artificial intelligence-driven distributed stereotactic radiosurgery strategy for multiple brain metastases management**  
Role: Co-Investigator  
Annual amount: \$490,665 year 2022  
Total amount of award: \$1,800,843 January 2019 to December 2024
- [2] **Grantor: National Institutes of Health (NIH)**  
**Project Title: 1R01CA214639-01A1 Next Generation Small Animal Radiation Research Platform**  
Role: Co-Investigator  
Annual amount: \$385,799 year 2022  
Total amount of award: \$2,845,201 February 2018 to January 2023
- [3] **Grantor: Cancer Prevention and Research Institute of Texas (CPRIT)**  
**Project Title: RP140285 Noninvasive Identification of Prostate Tumor Hypoxia as a Prognostic Biomarker**  
Role: Co-Investigator  
Annual amount: \$298,606 August 2014  
Total amount of award: \$895,820 August 2014 to August 2018
- [4] **Grantor: Cancer Prevention and Research Institute of Texas (CPRIT)**  
**Project Title: RP120670-C3 Image guided irradiation of small animals - Exploiting the radiobiology of stereotactic ablative radiotherapy for lung cancer**  
Role: Co-Investigator

## Awarded Grants Continued

Annual amount: \$177,582 August 2012  
Total amount of award: \$887,912 August 2012 to August 2017

- [5] **Grantor: Radiological Society of North America**  
**Project Title: Local Hypothermia as a Radioprotector during Prostate Stereotactic Body Radiotherapy**

Role: Co-Investigator  
Annual amount: \$20,000 July 2014  
Total amount of award: \$40,000 July 2014 to July 2016

- [6] **Grantor: National Institutes of Health (NIH)**  
**Project Title: S10 RR028011-01 XRad 225Cx Image Guided Biological Irradiator System**

Role: Co-Investigator  
Annual amount: \$550,000 August 2010

## RESEARCH INTERESTS

## Radiation Oncology Physics

Preclinical Radiotherapy Delivery Technologies  
Intensity Modulated Radiation Therapy (IMRT)  
Radiotherapy Quality Assurance (QA)  
Stereotactic Radiosurgery  
Brachytherapy

## REFEREED JOURNAL PUBLICATIONS

## Published Articles

- [1] **Deep-learning and radiomics ensemble classifier for false positive reduction in brain metastases segmentation**  
Zi Yang, Mingli Chen, Mahdieh Kazemimoghadam, Lin Ma, Strahinja Stojadinovic, Robert D Timmerman, Tu Dan, Zabi Wardak, Weiguo Lu, Xuejun Gu; *Physics in Medicine and Biology*, December 2021  
doi:10.1088/1361-6560/ac4667
- [2] **Dose kernel decomposition for spot based radiotherapy treatment planning**  
Mingli Chen, Zi Yang, Zabi Wardak, Strahinja Stojadinovic, Xuejun Gu, Weiguo Lu; *Medical Physics*, December 2021  
doi:10.1002/mp.15415
- [3] **Oxygen-Sensitive MRI: A Predictive Imaging Biomarker for Tumor Radiation Response?**  
Tatsuya J Arai, Donghan M Yang, James W Campbell III, Tsuicheng Chiu, Xinyi Cheng, Strahinja Stojadinovic, Peter Peschke, Ralph P. Mason; *International Journal of Radiation Oncology\* Biology\* Physics*, March 2021  
doi:10.1016/j.ijrobp.2021.03.039
- [4] **Expanded Radiosurgery Capabilities Utilizing Gamma Knife Icon**  
Jameson T. Mendel, Samuel Schroeder, Aaron Plitt, Ankur Patel, Mindy Joo,

## Published Articles Continued

- Strahinja Stojadinovic, Tu Dan, Robert Timmerman, Toral R. Patel, Zabi Wardak; *Cureus*, March 2021  
doi:10.7759/cureus.13998
- [5] **A general algorithm for distributed treatments of multiple brain metastases**  
Mingli Chen, Zabi Wardak, Strahinja Stojadinovic, Xuejun Gu, Weiguo Lu; *Medical Physics*, January 2021  
doi:10.1002/mp.14722
- [6] **Dose rate determination for preclinical total body irradiation**  
Yuncheng Zhong, Youfang Lai, Debabrata Saha, Michael D Story, Xun Jia, Strahinja Stojadinovic; *Physics in Medicine and Biology*, September 2020  
doi:10.1088/1361-6560/aba40f
- [7] **Margin-free Fractionated Stereotactic Radiotherapy for Pediatric Brain Tumors**  
Osama Mohamad, Zabi Wardak, Daniel C Bowers, Anh H Le, Tu Dan, Ramzi Abdulrahman, Lynn Gargan, Laura Klesse, Bradley Weprin, Dale Swift, Angela Price, Chuxiong Ding, Strahinja Stojadinovic, Frederick Sklar, Bruno Braga, Robert Timmerman; *Practical Radiation Oncology*, May 2020  
doi:10.1016/j.prro.2020.03.013
- [8] **A Web-based Brain Metastases Segmentation and Labeling Platform for Stereotactic Radiosurgery**  
Zi Yang, Hui Liu, Yan Liu, Strahinja Stojadinovic, Robert Timmerman, Lucien Nedzi, Tu Dan, Zabi Wardak, Weiguo Lu, Xuejun Gu; *Medical Physics*, April 2020  
doi:10.1002/mp.14201
- [9] **A Mail Audit Independent Peer Review System for Dosimetry Verification of a Small Animal Irradiator**  
Mary P. Gronberg, Ramesh C. Tailor, Susan A. Smith, Stephen F. Kry, David S. Followill, Strahinja Stojadinovic, Joshua S. Niedzielski, Patricia E. Lindsay, Sunil Krishnan, Francisco Aguirre, Tara N. Fujimoto, Cullen M. Taniguchic and Rebecca M. Howell; *Radiation Research*, February 2020  
doi:10.1667/RR15220.1
- [10] **Benefit of Multimodality Image Acquisition in the Treatment Planning of Stereotactic Radiosurgery (SRS) of Arteriovenous Malformation (AVM)**  
Dan Ishihara, Marco Pinho, Xuejun Gu, Strahinja Stojadinovic, Hui Liu, Robert Timmerman; *Journal of Cancer Research and Therapeutic Oncology*, February 2020  
doi:10.17303/jcrto.2020.8.104
- [11] **Considerations of target surface area and the risk of radiosurgical toxicity**  
Strahinja Stojadinovic, Yulong Yan, Andrew Leiker, Chul Ahn, Zabi Wardak, Tu Dan, Lucien Nedzi, Robert Timmerman, Toral Patel, Samuel Barnett, Bruce Mickey, Jeffrey Meyer; *PLoS ONE*, October 2019  
doi:10.1371/journal.pone.0224047

## Published Articles Continued

- [12] **Modeling Elekta VersaHD using the Varian Eclipse treatment planning system for photon beams: A single institution experience**  
You Zhang, Anh H Le, Zhen Tian, Zohaib Iqbal, Tsuicheng Chiu, Xuejun Gu, Andrei Pugachev, Robert Reynolds, Yang K Park, Mu Han Lin, Strahinja Stojadinovic; *Journal of Applied Clinical Medical Physics*, August 2019  
doi:10.1002/acm2.12709
- [13] **Improved Survival Outcomes for Kidney Cancer Patients With Brain Metastases**  
Isaac Alex Bowman, Alisha Bent, Tri Le, Alana Christie, Zabi Wardak, Yull Arriaga, Kevin Courtney, Hans Hammers, Samuel Barnett, Bruce Mickey, Toral Patel, Tony Whitworth, Strahinja Stojadinovic, Raquibul Hannan, Lucien Nedzi, Robert Timmerman, James Brugarolas; *Clinical Genitourinary Cancer*, November 2018  
doi:10.1016/j.clgc.2018.11.007
- [14] **Stereotactic Radiosurgery for Multiple Brain Metastases From Renal-Cell Carcinoma**  
Zabi Wardak, Alana Christie, Alex Bowman, Strahinja Stojadinovic, Lucien Nedzi, Sam Barnett, Toral Patel, Bruce Mickey, Tony Whitworth, Raquibul Hannan, James Brugarolas, Robert Timmerman; *Clinical Genitourinary Cancer*, November 2018  
doi:10.1016/j.clgc.2018.11.006
- [15] **MR-CBCT image-guided system for radiotherapy of orthotopic rat prostate tumors**  
Tsuicheng D. Chiu, Tatsuya J. Arai, James Campbell III, Steve B. Jiang, Ralph P. Mason, Strahinja Stojadinovic; *PloS one*, May 2018  
doi:10.1371/journal.pone.0198065
- [16] **Real-Time Whole-Brain Radiation Therapy: A Single-Institution Experience**  
Anh H Le, Strahinja Stojadinovic, Robert Timmerman, Hak Choy, Romona L Duncan, Steve B Jiang, Arnold Pompos; *International Journal of Radiation Oncology\* Biology\* Physics*, December 2017  
doi:10.1016/j.ijrobp.2017.12.282
- [17] **Effects of clinical X-ray irradiation on UHMWPE films**  
Nenad Stojilovic, Sasa V Dordevic, Strahinja Stojadinovic; *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, November 2017  
doi:10.1016/j.nimb.2017.08.023
- [18] **A deep convolutional neural network-based automatic delineation strategy for multiple brain metastases stereotactic radiosurgery**  
Yan Liu, Strahinja Stojadinovic, Brian Hrycushko, Zabi Wardak, Steven Lau, Weiguo Lu, Yulong Yan, Steve B Jiang, Xin Zhen, Robert Timmerman, Lucien Nedzi, Xuejun Gu; *PloS one*, October 2017  
doi:10.1371/journal.pone.0185844

## Published Articles Continued

- [19] **Reduced toxicity with equivalent outcomes using three-dimensional volumetric (3DV) image-based versus nonvolumetric point-based (NV) brachytherapy in a cervical cancer population**  
Kimberly M Thomas, Genevieve Maquilan, Strahinja Stojadinovic, Paul Medin, Michael R Folkert, Kevin Albuquerque; *PloS one*, June 2017  
doi:10.1016/j.brachy.2017.05.001
- [20] **Tumor physiological changes during hypofractionated stereotactic body radiation therapy assessed using multi-parametric magnetic resonance imaging**  
Heling Zhou, Zhang Zhang, Rebecca Denney, Jessica S Williams, Jeni Gerberich, Strahinja Stojadinovic, Debabrata Saha, John M Shelton, Ralph P Mason; *Oncotarget*, June 2017  
doi:10.18632/oncotarget.16395
- [21] **Technical Note: System for evaluating local hypothermia as a radioprotector of the rectum in a small animal model**  
Brian A Hrycushko, Chenchen Bing, Cecil Futch, Michelle Wodzak, Strahinja Stojadinovic, Paul M Medin, Rajiv Chopra; *Medical Physics*, May 2017  
doi:10.1002/mp.12353
- [22] **Automated high-dose rate brachytherapy treatment planning for a single-channel vaginal cylinder applicator**  
Yuhong Zhou, Peter Klages, Jun Tan, Yujie Chi, Strahinja Stojadinovic, Ming Yang, Brian Hrycushko, Paul Medin, Arnold Pompos, Steve Jiang, Kevin Albuquerque, Xun Jia; *Physics in Medicine and Biology*, May 2017  
doi:10.1088/1361-6560/aa637e
- [23] **Automatic metastatic brain tumor segmentation for stereotactic radiosurgery applications**  
Yan Liu, Strahinja Stojadinovic, Brian Hrycushko, Zabi Wardak, Weiguo Lu, Yulong Yan, Steve B Jiang, Robert Timmerman, Ramzi Abdulrahman, Lucien Nedzi, Xuejun Gu; *Physics in Medicine and Biology*, November 2016  
doi:10.1088/0031-9155/61/24/8440
- [24] **Developing oxygen-enhanced magnetic resonance imaging as a prognostic biomarker of radiation response**  
Derek A White, Zhang Zhang, Li Li, Jeni Gerberich, Strahinja Stojadinovic, Peter Peschke, Ralph P Mason; *Cancer Letters*, September 2016  
doi:10.1016/j.canlet.2016.06.003
- [25] **The step-and-shoot IMRT overshooting phenomenon: a novel method to mitigate patient overdose**  
Heming Zhen, Luo Ouyang, Qinan Bao, Nan Qin, Strahinja Stojadinovic, Arnold Pompos; *Journal of applied Clinical Medical Physics*, July 2016  
doi:10.1120/jacmp.v17i4.6101
- [26] **Effective Rat Lung Tumor Model for Stereotactic Body Radiation Therapy**  
Zhang Zhang, Michelle Wodzak, Olivier Belzile, Heling Zhou, Brock Sishc, Hao

## Published Articles Continued

- Yan, Strahinja Stojadinovic, Ralph P Mason, Rolf A Brekken, Rajiv Chopra, Michael D Story, Robert Timmerman, Debabrata Saha; *Radiation Research*, May 2016  
doi:10.1667/RR14382.1
- [27] **Tumor radio-sensitivity assessment by means of volume data and magnetic resonance indices measured on prostate tumor bearing rats**  
Antonella Belfatto, Derek A White, Ralph P Mason, Zhang Zhang, Strahinja Stojadinovic, Guido Baroni, Pietro Cerveri; *Medical Physics*, April 2016  
doi:10.1118/1.4941746
- [28] **Dosimetric comparison of Acuros XB with collapsed cone convolution/superposition and anisotropic analytic algorithm for stereotactic ablative radiotherapy of thoracic spinal metastases**  
Heming Zhen, Brian Hrycushko, Huichen Lee, Robert Timmerman, Arnold Pompos, Strahinja Stojadinovic, Ryan Foster, Steve B Jiang, Timothy Solberg, Xuejun Gu; *Journal of Applied Clinical Medical Physics*, July 2015  
doi:10.1120/jacmp.v16i4.5493
- [29] **Breaking bad IMRT QA practice**  
Strahinja Stojadinovic, Luo Ouyang, Xuejun Gu, Arnold Pompos, Qinan Bao, Timothy D Solberg; *Journal of Applied Clinical Medical Physics*, May 2015  
doi:10.1120/jacmp.v16i3.5242
- [30] **Genome-Wide Association Analysis of Radiation Resistance in *Drosophila melanogaster***  
Mahesh Vaisnav, Chao Xing, Hung-Chih Ku, Daniel Hwang, Strahinja Stojadinovic, Alexander Pertsemelidis, John M Abrams; *PloS one*, August 2014  
doi:10.1371/journal.pone.0104858
- [31] **Correlations of noninvasive BOLD and TOLD MRI with pO<sub>2</sub> and relevance to tumor radiation response**  
Rami R Hallac, Heling Zhou, Rajesh Pidikiti, Kwang Song, Strahinja Stojadinovic, Dawen Zhao, Timothy Solberg, Peter Peschke, Ralph P Mason; *Magnetic Resonance in Medicine*, May 2014  
doi:10.1002/mrm.24846
- [32] **The importance of dosimetry standardization in radiobiology**  
Marc Desrosiers, Larry DeWerd, James Deye, Patricia Lindsay, Mark K Murphy, Michael Mitch, Francesca Macchiarini, Strahinja Stojadinovic, Helen Stone; *Journal of Research of the National Institute of Standards and Technology*, December 2013  
doi:10.6028/jres.118.021
- [33] **Partial depletion of regulatory T cells does not influence the inflammation caused by high dose hemi-body irradiation**  
Shihong Ma, James A Richardson, Andrew Bitmansour, Timothy D Solberg, Rajesh Pidikiti, Kwang Song, Strahinja Stojadinovic, Ellen S Vitetta, Jeffrey J Meyer; *PloS one*, November 2013  
doi:10.1371/journal.pone.0056607

## Published Articles Continued

- [34] **An athymic rat model of cutaneous radiation injury designed to study human tissue-based wound therapy**  
Lucas H Rifkin, Strahinja Stojadinovic, Collin H Stewart, Kwang H Song, Michael C Maxted, Marcus H Bell, Natalie S Kashefi, Michael P Speiser, Michel Saint-Cyr, Michael D Story, Rod J Rohrich, Spencer A Brown, Timothy D Solberg; *Radiation Oncology*, May 2012  
doi:10.1186/1748-717X-7-68
- [35] **Dosimetric characterization of an image-guided stereotactic small animal irradiator**  
Rajesh Pidikiti, Strahinja Stojadinovic, Michael P Speiser, Kwang H Song, Frederick Hager, Debabrata Saha, Timothy D Solberg; *Physics in Medicine and Biology*, March 2011  
doi:10.1088/0031-9155/56/8/016
- [36] **An x-ray image guidance system for small animal stereotactic irradiation**  
Kwang H Song, Rajesh Pidikiti, Strahinja Stojadinovic, Michael P Speiser, Serguei Seliounine, Debabrata Saha, Timothy D Solberg; *Physics in Medicine and Biology*, November 2010  
doi:10.1088/0031-9155/55/23/011
- [37] **Feasibility of small animal cranial irradiation with the microRT system**  
Erich L Kiehl, Strahinja Stojadinovic, Kathleen T Malinowski, David Limbrick, Sarah C Jost, Joel R Garbow, Joshua B Rubin, Joseph O Deasy, Divya Khullar, Enrique W Izaguirre, Parag J Parikh, Daniel A Low, Andrew J Hope; *Medical Physics*, October 2008  
doi:10.1118/1.2977762
- [38] **MicroRT-Small animal conformal irradiator**  
Strahinja Stojadinovic, Daniel A Low, Andrew J Hope, Milos Vicic, Joseph O Deasy, Jing Cui, Divya Khullar, Parag J Parikh, Kathleen T Malinowski, Enrique W Izaguirre, Sasa Mutic, Perry W Grigsby; *Medical Physics*, November 2007  
doi:10.1118/1.2799887
- [39] **Progress toward a microradiation therapy small animal conformal irradiator**  
Strahinja Stojadinovic, Daniel A Low, Milos Vicic, Sasa Mutic, Joseph O Deasy, Andrew J Hope, Parag J Parikh, Perry W Grigsby; *Medical Physics*, October 2006  
doi:10.1118/1.2349693
- [40] **Critical behavior at the isotropic-to-nematic phase transition in a bent-core liquid crystal**  
David Wiant, Strahinja Stojadinovic, Krishna Neupane, Sunil Sharma, Katalin Fodor-Csorba, Antal Jakli, Jim T Gleeson, Samuel Sprunt; *Physical Review E*, March 2006  
doi:10.1103/PhysRevE.73.030703
- [41] **Optically isotropic liquid-crystal phase of bent-core molecules with polar nanostructure**  
Guangxun Liao, Strahinja Stojadinovic, Gerhard Pelzl, Wolfgang Weissflog,



## Published Articles Continued

Samuel Sprunt, Antal Jakli; *Physical Review E*, August 2005  
doi:10.1103/PhysRevE.72.021710

[42] **Optical studies of the nematic phase of an oxazole-derived bent-core liquid crystal**

Jose A Olivares, Strahinja Stojadinovic, Theo Dingemans, Samuel Sprunt, Antal Jakli; *Physical Review E*, October 2003  
doi:10.1103/PhysRevE.68.041704

[43] **Light scattering study of a twist grain boundary liquid crystal**

Anthony Adorjan, Strahinja Stojadinovic, Ludmila Sukhomlinova, Robert Twieg, Samuel Sprunt; *Physical Review Letters*, January 2003  
doi:10.1103/PhysRevLett.90.035503

[44] **Dynamics of the nematic phase of a bent-core liquid crystal**

Strahinja Stojadinovic, Anthony Adorjan, Samuel Sprunt, Hans Sawade, Antal Jakli; *Physical Review E*, December 2002  
doi:10.1103/PhysRevE.66.060701

## CONFERENCE PUBLICATIONS

## Published Abstracts

[1] AAPM and COMP Joint Virtual Meeting and Exhibition July 12-16 2020  
**BReP-SNAP-T-14 A Multi-Institutional End-To-End Dosimetry Mail Audit for Orthovoltage Small Animal Irradiators** *Medical Physics*, June 2020  
doi:10.1002/mp.14316

[2] AAPM and COMP Joint Virtual Meeting and Exhibition July 12-16 2020  
**BReP-SNAP-T-44 Dose Rate Determination for Preclinical Total Body Irradiation** *Medical Physics*, June 2020  
doi:10.1002/mp.14316

[3] AAPM and COMP Joint Virtual Meeting and Exhibition July 12-16 2020  
**PO-GeP-M-270 Investigating Stability and Reproducibility of Deep Inspiration Breath Hold for Liver Stereotactic Body Radiotherapy** *Medical Physics*, June 2020  
doi:10.1002/mp.14316

[4] AAPM and COMP Joint Virtual Meeting and Exhibition July 12-16 2020  
**PO-GeP-T-229 Comparison of Reference Dosimetry Protocols for Small Radiosurgery Fields** *Medical Physics*, June 2020  
doi:10.1002/mp.14316

[5] ASTRO 61<sup>st</sup> Annual Meeting, Chicago, IL September 15-18 2019  
**Custom Design for Extended FSD Superficial Treatments** *International Journal of Radiation Oncology \* Biology \* Physics*, September 2019  
doi:10.1016/j.ijrobp.2019.06.762

[6] ASTRO 61<sup>st</sup> Annual Meeting, Chicago, IL September 15-18 2019  
**Modeling Radiosurgery Normal Tissue Dose: Target Surface Area Serves**

## Published Abstracts Continued

- as the Best Single Pre-treatment Predictor** *International Journal of Radiation Oncology \* Biology \* Physics*, September 2019  
doi:10.1016/j.ijrobp.2019.06.592
- [7] AAPM 61<sup>st</sup> Annual Meeting, San Antonio, TX July 14 - 18 2019  
**Inverse Planning for Gamma Knife Treatment of Multiple Brain Metastases**  
*Medical Physics*, June 2019  
doi:10.1002/mp.13589
- [8] AAPM 61<sup>st</sup> Annual Meeting, San Antonio, TX July 14 - 18 2019  
**Spatial-Temporal Distributed Radiosurgery for Gamma Knife Treatment of Multiple Brain Metastases** *Medical Physics*, June 2019  
doi:10.1002/mp.13589
- [9] AAPM 61<sup>st</sup> Annual Meeting, San Antonio, TX July 14 - 18 2019  
**BEST IN PHYSICS (THERAPY): A Web-Based Brain Metastases Segmentation Platform with Atlas Label for Stereotactic Radiosurgery**  
*Medical Physics*, June 2019  
doi:10.1002/mp.13589
- [10] AAPM 61<sup>st</sup> Annual Meeting, San Antonio, TX July 14 - 18 2019  
**Motion Tracking Quality Assurance Platform for Leksell Gamma Knife HDMM System** *Medical Physics*, June 2019  
doi:10.1002/mp.13589
- [11] AAPM 61<sup>st</sup> Annual Meeting, San Antonio, TX July 14 - 18 2019  
**Commissioning of a Noninvasive Breast Stereotactic Body Radiation Therapy Platform: GammaPod** *Medical Physics*, June 2019  
doi:10.1002/mp.13589
- [12] AAPM 60<sup>th</sup> Annual Meeting, Nashville, TN July 29 - August 2 2018  
**A Web-Based Treatment Planning System for Low-Energy X-Ray Units**  
*Medical Physics*, June 2018  
doi:10.1002/mp.12938
- [13] AAPM 60<sup>th</sup> Annual Meeting, Nashville, TN July 29 - August 2 2018  
**Investigation of Small Field Electron Beams for Preclinical Irradiation**  
*Medical Physics*, June 2018  
doi:10.1002/mp.12938
- [14] AAPM 60<sup>th</sup> Annual Meeting, Nashville, TN July 29 - August 2 2018  
**Online Automatic Brain Metastases Segmentation Web Platform for Stereotactic Radiosurgery** *Medical Physics*, June 2018  
doi:10.1002/mp.12938
- [15] AAPM 59<sup>th</sup> Annual Meeting, Denver, CO July 30 - August 3 2017  
**SU-E-FS1-07: MR-CBCT Image-Guided System for Radiotherapy of Orthotopic Rat Prostate Tumors** *Medical Physics*, June 2017  
doi:10.1002/mp.12304

## Published Abstracts Continued

- [16] AAPM 59<sup>th</sup> Annual Meeting, Denver, CO July 30 - August 3 2017  
**SU-K-FS4-06: Automatic Delineation Strategy for Brain Metastases Using Deep Convolutional Neural Network** *Medical Physics*, June 2017  
doi:10.1002/mp.12304
- [17] ISMRM 25<sup>th</sup> Annual Meeting, Honolulu, HI April 22-27 2017  
**4364: Evaluation of tumor oxygenation following radiation and PS-targeting antibody therapy in an orthotopic lung cancer model** *Magnetic Resonance in Medicine*, April 2017  
doi:10.1118/1.4955567
- [18] AAPM 58<sup>th</sup> Annual Meeting, Washington, DC July 31 - August 4 2016  
**SU-C-BRA-06: Automatic Brain Tumor Segmentation for Stereotactic Radiosurgery Applications** *Medical Physics*, June 2016  
doi:10.1118/1.4955567
- [19] World Congress of Brachytherapy, San Francisco, CA June 27-29 2016  
**Reduced Toxicity with Equivalent Outcomes Using Three-Dimensional (3D) Image-Based versus Two-Dimensional (2D) Brachytherapy in an Indigent Cervical Cancer Population** *Brachytherapy*, June 2016  
doi:10.1016/j.brachy.2016.04.164
- [20] ESTRO 35<sup>th</sup> Annual Meeting, Turin, Italy April 29 - May 3 2016  
**EP-1718: Estimation of tumor radio-sensitivity using mathematical models and analysis of the oxygenation role** *Radiotherapy and Oncology*, April 2016  
doi:10.1016/S0167-8140(16)32969-3
- [21] 2016 Spring Meeting of the APS Region Section, Dayton, OH April 8-9 2016  
**B1.00012: Effects of low-dose high-energy photon irradiation on UHMWPE films**
- [22] RSNA 2015 101<sup>st</sup> Scientific Assembly and Annual Meeting, Chicago, IL November 29 - December 4 2015  
**MSRO22-02: A Survival and Dosimetric Evaluation of Non Volumetric (Two-Dimensional) versus Volumetric (Three-Dimensional) Brachytherapy Among an Indigent Cervical Cancer Population**
- [23] ASTRO 57<sup>th</sup> Annual Meeting, San Antonio, TX October 18-21 2015  
**Stereotactic Treatment of Multiple Brain Metastasis: Pseudo In Vivo Evaluation of Three Different Techniques** *International Journal of Radiation Oncology \* Biology \* Physics*, November 2015  
doi:10.1016/j.ijrobp.2015.07.2010
- [24] AAPM 57<sup>th</sup> Annual Meeting, Anaheim, CA July 12-16 2015  
**TU-AB-201-02: An Automated Treatment Plan Quality Assurance Program for Tandem and Ovoid High Dose-Rate Brachytherapy** *Medical Physics*, June 2015  
doi:10.1118/1.4925540

## Published Abstracts Continued

- [25] AAPM 57<sup>th</sup> Annual Meeting, Anaheim, CA July 12-16 2015  
**SU-C-213-07: Fabrication and Testing of a 3D-Printed Small Animal Rectal Cooling Device to Evaluate Local Hypothermia as a Radioprotector During Prostate SBRT** *Medical Physics*, June 2015  
doi:10.1118/1.4923788
- [26] AAPM 57<sup>th</sup> Annual Meeting, Anaheim, CA July 12-16 2015  
**SU-D-BRD-02: Auto Weekly-An Automated Online Weekly Chart Check System for Medical Physics** *Medical Physics*, June 2015  
doi:10.1118/1.4923868
- [27] AAPM 57<sup>th</sup> Annual Meeting, Anaheim, CA July 12-16 2015  
**SU-E-T-184: Clinical VMAT QA Practice Using LINAC Delivery Log Files** *Medical Physics*, June 2015  
doi:10.1118/1.4924545
- [28] ABS 36<sup>th</sup> Annual Meeting, Orlando, FL April 9-11 2015  
**Commissioning and Acceptance Testing of a High Dose-Rate <sup>32</sup>P Plaque for Intraoperative Brachytherapy of the Spinal Dura** *Brachytherapy*, May-June 2015  
doi:10.1016/j.brachy.2015.02.307
- [29] ABS 36<sup>th</sup> Annual Meeting, Orlando, FL April 9-11 2015  
**An Automated Treatment Plan Quality Assurance Program for Tandem and Ovoid High Dose-Rate Brachytherapy** *Brachytherapy*, May-June 2015  
doi:10.1016/j.brachy.2015.02.312
- [30] ABS 36<sup>th</sup> Annual Meeting, Orlando, FL April 9-11 2015  
**Inferior Critical Organ Dose-Profile in Non-Volumetric (Two-Dimensional) Versus Volumetric (Three-Dimensional) Brachytherapy May Predict for Greater Toxicity** *Brachytherapy*, May-June 2015  
doi:10.1016/j.brachy.2015.02.338
- [31] ASTRO 56<sup>th</sup> Annual Meeting, San Francisco, CA September 14-17 2014  
**Initial Experience with VMAT Plan and Delivery Verification Using a DICOM-RT Framework and Linac Delivery Log Files** *International Journal of Radiation Oncology \* Biology \* Physics*, September 2014  
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- [32] AAPM 56<sup>th</sup> Annual Meeting, Austin, TX July 20-24 2014  
**WE-A-17A-04: Development of An Ultra-Fast Monte Carlo Dose Engine for High Dose Rate Brachytherapy** *Medical Physics*, June 2014  
doi:10.1118/1.4889374
- [33] AAPM 56<sup>th</sup> Annual Meeting, Austin, TX July 20-24 2014  
**SU-E-T-213: Initial Experience with VMAT Plan and Delivery Verification Using a DICOM-RT Framework and Linac Delivery Log Files** *Medical Physics*, June 2014  
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- [34] ASTRO 55<sup>th</sup> Annual Meeting, Atlanta, GA September 22-25 2013  
**Evaluation of Acuros XB for SABR Planning of Thoracic Spinal Tumors**  
*International Journal of Radiation Oncology \* Biology \* Physics*, September 2013  
doi:10.1016/j.ijrobp.2013.06.1942
- [35] AAPM 55<sup>th</sup> Annual Meeting, Indianapolis, IN August 4-8 2013  
**SU-E-T-575: Independent Verification of VMAT Treatment Plans Using a DICOM-RT Framework** *Medical Physics*, June 2013  
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- [36] AAPM 55<sup>th</sup> Annual Meeting, Indianapolis, IN August 4-8 2013  
**SU-E-T-381: The Step-And-Shoot IMRT Overshooting Phenomena: A Novel Method to Mitigate Patient Overdosage** *Medical Physics*, June 2013  
doi:10.1118/1.4814815
- [37] AAPM 55<sup>th</sup> Annual Meeting, Indianapolis, IN August 4-8 2013  
**SU-E-T-556: Verification and Evaluation of Acuros XB Dose Calculations for Stereotactic Ablative Radiotherapy of the Thoracic Spine** *Medical Physics*, June 2013  
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**WE-E-108-06: Demonstration of a CBCT Based Monte Carlo Model for Small Animal Treatment Planning** *Medical Physics*, June 2013  
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- [39] AAPM 55<sup>th</sup> Annual Meeting, Indianapolis, IN August 4-8 2013  
**WE-E-108-05: Evaluation of the XRAD 225Cx MC Source Model in Heterogeneous Media** *Medical Physics*, June 2013  
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**Experience in preclinical, high dose stereotactic irradiation** *Journal of Radiosurgery and SBRT*, March 2013
- [41] ISRS 2013 - the 20<sup>th</sup> International Symposium on Radiopharmaceutical Sciences, Jeju Island, South Korea May 12-17 2013  
**Development of a monte carlo treatment planning system for small animal stereotactic irradiation** *Journal of Radiosurgery and SBRT*, March 2013
- [42] 2<sup>nd</sup> ESTRO Forum 2013, Geneva, Switzerland April 19-23 2013  
**EP-1299: Various preclinical studies using image-guided small animal irradiators** *Radiotherapy and Oncology*, March 2013  
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**OC-0063: Commissioning CBCT based Monte Carlo treatment planning system for small animal stereotactic irradiation** *Radiotherapy and Oncology*,

## Published Abstracts Continued

March 2013

doi:10.1016/S0167-8140(15)32369-0

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**Gamma Analysis of Normalized and Un-normalized Dose Distributions**  
*International Journal of Radiation Oncology \* Biology \* Physics*, November 2012  
doi:10.1016/j.ijrobp.2012.07.2157
- [45] ASTRO 54<sup>th</sup> Annual Meeting, Boston, MA October 28-30 2012  
**Depletion of Regulatory T Cells Does Not Influence the Inflammatory Response Induced by High-dose Irradiation**  
*International Journal of Radiation Oncology \* Biology \* Physics*, November 2012  
doi:10.1016/j.ijrobp.2012.07.1842
- [46] AAPM 54<sup>th</sup> Annual Meeting, Charlotte, NC July 29 - August 2 2012  
**SU-E-T-274: Monte Carlo Simulations of Output Factors for a Small Animal Irradiator**  
*Medical Physics*, June 2012  
doi:10.1118/1.4735342
- [47] AAPM 54<sup>th</sup> Annual Meeting, Charlotte, NC July 29 - August 2 2012  
**SU-E-T-386: Gamma Analysis of Normalized and Un-Normalized Dose Distributions**  
*Medical Physics*, June 2012  
doi:10.1118/1.4735475
- [48] AAPM 52<sup>nd</sup> Annual Meeting, Philadelphia, PA July 18-22 2010  
**SU-GG-J-06: Optical and X-Ray Image Guided Stereotactic Body Irradiator Dedicated to Small Animals**  
*Medical Physics*, June 2010  
doi:10.1118/1.3468229
- [49] AAPM 52<sup>nd</sup> Annual Meeting, Philadelphia, PA July 18-22 2010  
**TH-C-204B-08: Energy Dependency and Dosimetric Modeling in Small Animal Stereotactic Irradiation**  
*Medical Physics*, June 2010  
doi:10.1118/1.4794896
- [50] ASTRO 51<sup>st</sup> Annual Meeting, Chicago, IL November 1-5 2009  
**Dosimetric Characterization of Stereotactic Small Animal Irradiator**  
*International Journal of Radiation Oncology \* Biology \* Physics*, November 2009  
doi:10.1016/j.ijrobp.2009.07.1532
- [51] World Congress on Medical Physics and Biomedical Engineering, Munich, Germany September 7-12 2009  
**Image-Guided Stereotactic Small Animal Irradiator**  
*The International Federation for Medical and Biological Engineering (IFMBE) Proceedings*, September 2009  
doi:10.1007/978-3-642-03895-2\_17
- [52] World Congress on Medical Physics and Biomedical Engineering, Munich, Germany September 7-12 2009  
**Optical Enhancement of DNA-Base Radio-Resistivity**  
*The International Federation for Medical and Biological Engineering (IFMBE) Proceedings*,

## Published Abstracts Continued

September 2009

doi:10.1007/978-3-642-03902-7\_36

- [53] 10<sup>th</sup> Biennial ESTRO Conference on Physics and Radiation Technology for Clinical Radiotherapy, Maastricht, The Netherlands August 30 - September 3 2009

**Small Animal SBRT Irradiator** *Radiotherapy and Oncology*, August 2009

doi:10.1016/S0167-8140(12)72897-9

- [54] AAPM 51<sup>st</sup> Annual Meeting, Anaheim, CA July 26-30 2009

**TH-C-BRC-04: Small Animal Stereotactic Irradiator** *Medical Physics*, June 2009

doi:10.1118/1.3182618

- [55] AAPM 51<sup>st</sup> Annual Meeting, Anaheim, CA July 26-30 2009

**TU-C-BRD-04: Development and Application of a Pre-Clinical Stereotactic Irradiator** *Medical Physics*, June 2009

doi:10.1118/1.3182322

- [56] AAPM 51<sup>st</sup> Annual Meeting, Anaheim, CA July 26-30 2009

**SU-FF-T-483: Optical Enhancement of DNA-Base Radio-Resistivity** *Medical Physics*, June 2009

doi:10.1118/1.3181981

- [57] AAPM 51<sup>st</sup> Annual Meeting, Anaheim, CA July 26-30 2009

**SU-FF-J-157: A Monte Carlo Model for Small Animal Stereotactic Irradiation** *Medical Physics*, June 2009

doi:10.1118/1.3181450

- [58] ASTRO 50<sup>th</sup> Annual Meeting, Boston, MA September 21-25 2008

**Errors and Uncertainties in Accelerated Partial Breast Irradiation (APBI) with Balloon Brachytherapy: Are Current Target Coverage Goals Adequate?** *International Journal of Radiation Oncology \* Biology \* Physics*, September 2008

doi:10.1016/j.ijrobp.2008.06.033

- [59] ASTRO 50<sup>th</sup> Annual Meeting, Boston, MA September 21-25 2008

**Potential Effect of Inherent Treatment Planning Uncertainties on Expected vs. Actual Dose to Skin and Chest Wall with the Mammosite (MS) for Accelerated Partial Breast Irradiation** *International Journal of Radiation Oncology \* Biology \* Physics*, September 2008

doi:10.1016/j.ijrobp.2008.06.758

- [60] AAPM 50<sup>th</sup> Annual Meeting, Huston, TX July 27-31 2008

**TU-C-AUD C-03: Teletherapy MicroRT Using a Commercial <sup>192</sup>Ir Source** *Medical Physics*, June 2008

doi:10.1118/1.2962449

- [61] AAPM 50<sup>th</sup> Annual Meeting, Huston, TX July 27-31 2008

**TH-C-AUD A-01: A Systematic Analysis of Errors and Uncertainties in**

## Published Abstracts Continued

- Partial Breast Irradiation Using the MammoSite Balloon Catheter** *Medical Physics*, June 2008  
doi:10.1118/1.2962836
- [62] AAPM 50<sup>th</sup> Annual Meeting, Huston, TX July 27-31 2008  
**TH-C-351-01: Design of the Washington University Small Animal Conformal Micro Irradiator** *Medical Physics*, June 2008  
doi:10.1118/1.2962857
- [63] 2008 World Congress of Brachytherapy, Boston, MA May 4-6 2008  
**Probabilistic analysis of the planning and delivery of partial breast irradiation with balloon brachytherapy: Unsettling uncertainty** *Brachytherapy*, April-June 2008  
doi:10.1016/j.brachy.2008.02.145
- [64] AAPM 49<sup>th</sup> Annual Meeting, Minneapolis, MN July 22-26 2007  
**SU-FF-T-183: Dosimetric Verification of a Commercial Research Irradiator** *Medical Physics*, June 2007  
doi:10.1118/1.2760842
- [65] AAPM 49<sup>th</sup> Annual Meeting, Minneapolis, MN July 22-26 2007  
**SU-EE-A1-01: Dosimetric Comparisons of DMPO and Two-Step Approach Step-And-Shoot IMRT Plans** *Medical Physics*, June 2007  
doi:10.1118/1.2760364
- [66] ASTRO 48<sup>th</sup> Annual Meeting, Philadelphia, PA November 5-9 2006  
**2647 Xenografted Human Mesenchymal Stem Cells Migrate To Irradiated Murine Lung** *International Journal of Radiation Oncology \* Biology \* Physics*, November 2006  
doi:10.1016/j.ijrobp.2006.07.1062
- [67] 21<sup>st</sup> International Liquid Crystal Conference, Keystone, CO July 2-7 2006  
**FERRP-53 Critical behavior at the isotropic to nematic phase transition in a bent-core liquid crystal**
- [68] AAPM 48<sup>th</sup> Annual Meeting, Orlando, FL July 30 - August 3 2006  
**TH-C-230A-08: A Prototype Rotational Immobilization System for a Proposed Static-Gantry MicroRT Device with Tomographic Capabilities** *Medical Physics*, June 2006  
doi:10.1118/1.2241871
- [69] AAPM 48<sup>th</sup> Annual Meeting, Orlando, FL July 30 - August 3 2006  
**TH-C-224C-02: MicroRT/microRTP: A Conformal Small Animal Planning and Irradiation System** *Medical Physics*, June 2006  
doi:10.1118/1.2241875
- [70] 3<sup>rd</sup> International Conference on Translational Research, Lugano, Switzerland March 12-15 2006  
**141 Targeted sub-total irradiation of mouse models for normal tissue complication modeling using a prototype microrrt device** *Radiotherapy and*



## Published Abstracts Continued

*Oncology*, March 2006

doi:10.1016/S0167-8140(06)80620-1

- [71] 2006 Annual APS March Meeting, Baltimore, MD March 13-17 2006  
**J1.00202: Critical behavior at the isotropic to nematic phase transition in a bent-core liquid crystal**
- [72] AAPM 47<sup>th</sup> Annual Meeting, Seattle, WA July 24-28 2005  
**TSU-FF-T-262: Advanced Irradiator for the Small Animal Conformal Treatment** *Medical Physics*, June 2005  
doi:10.1118/1.1997991
- [73] AAPM 47<sup>th</sup> Annual Meeting, Seattle, WA July 24-28 2005  
**MO-D-T-6E-09: Progress Towards a MicroRT Small Animal Conformal Irradiator** *Medical Physics*, June 2005  
doi:10.1118/1.1998279
- [74] APS Ohio Section Fall Meeting, Cleveland, OH October 17-18 2003  
**P.006: A Comparative Dynamic Light Scattering Study of Several Bent Core Nematic Liquid Crystals**
- [75] APS Ohio Section Fall Meeting, Cleveland, OH October 17-18 2003  
**P.011: Virtual Light Scattering Lab based on LabView Software**
- [76] 2002 Annual APS March Meeting, Indianapolis, IN March 18-22 2002  
**M26.005: Dynamic light scattering study of the N\* to NL\* transition in a chiral liquid crystal**
- [77] 2002 Annual APS March Meeting, Indianapolis, IN March 18-22 2002  
**M26.002: Dynamics of the nematic phase of a bent-core liquid crystal**
- [78] APS Ohio Section Spring Meeting, Kent, OH April 20-21 2001  
**H2.004: Dynamic Light Scattering Studies of Twist Grain Boundary Liquid Crystals**

## INVITED TALKS

## National and International Talks

- ★ **ASTRO 57<sup>th</sup> Annual Meeting, San Antonio, TX** October 18-21 2015
  - ◇ Converting to phantomless IMRT QA with Mobius3D at UT Southwestern
- ★ **AAPM Delaware Valley Chapter Spring Symposium, Philadelphia, PA** May 16 2014
  - ◇ IMRT/VMAT QA: Is measurement with a phantom necessary?
- ★ **Texas Radiological Society 98<sup>th</sup> Annual Scientific Meeting, Austin, TX** April 8-10 2011
  - ◇ Brachytherapy Dosimetry

**CLINICAL  
SERVICES AND  
INNOVATIONS**

**Clinical Services and Innovations**

<b>Lead Physicist Gamma Knife ICON</b>	December 2016 to present
★ Commissioned Gamma Knife ICON - UT Southwestern Medical Center Stereotactic Radiosurgery Program	December 2016
<b>Lead Physicist for Mobius3D/MobiusFX - no phantom IMRT/VMAT Patient Specific Quality Assurance</b>	January 2013 to December 2018
<b>Lead Physicist for Superficial Radiotherapy</b>	October 2015 to October 2019
★ Commissioned XStrahl 150 Superficial Radiotherapy Unit	March 2013
★ Recommissioned XStrahl 150 Superficial Radiotherapy Unit	March 2017
<b>Lead Physicist Gamma Knife Perfexion</b>	August 2011 - December 2016
★ Commissioned Gamma Knife Perfexion - UT Southwestern Medical Center Stereotactic Radiosurgery Program	August 2011
<b>Started High Dose Rate (HDR) Brachytherapy Service</b>	August 2008
★ Lead HDR Physicist 3 years	August 2008 - August 2011
★ Support HDR Physicist 6 years	August 2011 - August 2017
<b>Compiled UTSW Clinical Linear Accelerator Data Book</b>	October 2013
<b>Commissioned four <sup>137</sup>Cs Research Irradiators</b>	Spring 2012
<b>Primary Physicist for Eclipse Treatment Planning System</b>	August 2008 - January 2016
<b>Commissioned XRad 225Cx Image Guided Small Animal Irradiator Platform</b>	2011
<b>Commissioned XRad320 Research Orthovoltage Irradiator</b>	2009

**ADVISING AND  
MENTORING**

**Mentoring**

**Postdoctoral Scholars - Medical Physics Residents**

★ <b>Liyuan Chen Ph.D.</b>	January 2022 - March 2022
★ <b>Xinran Zhong Ph.D.</b>	September 2021 - December 2021
★ <b>Heui Lee Ph.D.</b>	July 2021 - September 2021
★ <b>Samaneh Kazemifar Ph.D.</b>	April 2021 - June 2021
★ <b>Mindy Joo Ph.D.</b>	January 2021 - March 2021
★ <b>Zhenyu Xiong Ph.D.</b>	October 2020 - December 2020
★ <b>Deepak Shrestha Ph.D.</b>	July 2020 - September 2020
★ <b>Rafe McBeth Ph.D.</b>	April 2020 - June 2020
★ <b>Zohaib Iqbal Ph.D.</b>	January 2020 - March 2020
★ <b>David Parsons Ph.D.</b>	October 2019 - December 2019
★ <b>Jun Tan Ph.D.</b>	July 2019 - September 2019
★ <b>Nima Hassan-Rezaeian Ph.D.</b>	April 2019 - June 2019
★ <b>Faraz Kalantari Mahmoudabadi Ph.D.</b>	January 2019 - March 2019
★ <b>Matthew Brenner Ph.D.</b>	January 2019 - March 2019
★ <b>Alfonso Rodriguez Ph.D.</b>	October 2018 - December 2018
★ <b>Tsuicheng (David) Chiu Ph.D.</b>	July 2018 - September 2018

## Mentoring

★ <b>Zhan Tian Ph.D.</b>	April 2018 - June 2018
★ <b>You Zhang Ph.D.</b>	October 2017 - December 2017
★ <b>Reza Taleei Ph.D.</b>	July 2017 - September 2017
★ <b>Luo Ouyang Ph.D.</b>	January 2016 - March 2016
★ <b>Matthew Webster Ph.D.</b>	April 2015 - June 2015
★ <b>Holly Johnston Ph.D.</b>	July 2014 - September 2014
★ <b>Heming Zhen Ph.D.</b>	January 2014 - March 2014
★ <b>Robert Reynolds Ph.D.</b>	October 2013 - December 2013
★ <b>Travis Jacobson Ph.D.</b>	July 2013 - September 2013
★ <b>Brian Hrycushko Ph.D.</b>	January 2013 - March 2013
★ <b>Qinan Bao Ph.D.</b>	January 2012 - March 2012
★ <b>Joseph Dugas Ph.D.</b>	April 2011 - June 2011
★ <b>Michael Speiser Ph.D.</b>	January 2010 - March 2010
★ <b>Michael Speiser Ph.D.</b>	January 2009 - March 2009

## Graduate Students

★ <b>Rajesh Pidikiti</b> , PhD Student, Biomedical Engineering	2010 - 2012
Co-advised by: Timothy Solberg	
◇ Thesis: <i>Development of Monte Carlo Treatment Planning and Dosimetry System for Small Animal Irradiator</i>	

## TEACHING EXPERIENCE

## Lectures in Medical Physics

<b>UTSW Gamma Knife Training Program</b>	2019 to present
◇ Gamma Knife ICON - Lecture 1	
◇ Gamma Knife ICON - Lecture 2	
◇ Gamma Knife ICON - Lecture 3	
<b>UTSW SBRT Program</b>	2013 to 2019
◇ Quality Assurance for SBRT	
<b>Physics of Radiation Oncology for MD Residents</b>	2017 to present
◇ Production of Diagnostic and Therapeutic X-Rays	
<b>RT course 3413: Radiation Therapy Physics</b>	2009 to 2020
◇ SI Units, Unit Conversions, Definitions	
◇ Interactions of Photons with Matter I	
◇ Interactions of Photons with Matter II	
◇ Charged Particles Interactions with Matter	
◇ Quality of X-Ray Beams	
<b>Postdoctorate Certificate Program</b>	2013 to present
◇ Calibration of Photon and Electron Beams I	
◇ Calibration of Photon and Electron Beams II	
◇ IMRT/SBRT Physics Considerations	

## Lectures in Medical Physics

- |   |              |
|---|--------------|
| <b>Physics of Radiation Oncology for MD Residents</b> | 2009 to 2016 |
| ◇ Brachytherapy I-IV Lecture Series                   |              |
| <b>Physics of Radiation Oncology for MD Residents</b> | 2009 to 2010 |
| ◇ Fractionation and Tissue Response                   |              |

## PROFESSIONAL SERVICE

### Professional Service

#### Medical Physics Residency Program

- |                                       |                              |
|---------------------------------------|------------------------------|
| ◇ Associate Director                  | March 2018 to September 2021 |
| UTSW Department of Radiation Oncology |                              |

#### Committee Service

- |  |                                 |
|--|---------------------------------|
| ◇ Strategic Development Initiative - Education Committee for Medical Physics Residency           | December 2019 to September 2021 |
| UTSW Department of Radiation Oncology  |                                 |
| ◇ Strategic Development Initiative - Education Committee for Technology Driven Training Courses  | December 2019 to September 2021 |
| UTSW Department of Radiation Oncology  |                                 |
| ◇ Curriculum/Advisory/Interview Committee for the Radiation Therapy and Technology (RTT) Program | 2009 - 2020                     |
| UTSW School of Health Professions  |                                 |
| ◇ Medical Physics Residency Annual Review Committee  | 2018 - 2020                     |
| UTSW Department of Radiation Oncology  |                                 |
| ◇ Medical Physics Residency Advisory Committee   | 2009 - 2017                     |
| UTSW Department of Radiation Oncology  |                                 |
| ◇ <sup>137</sup> Cs Irradiators Subcommittee of Radiation Safety Committee                       | 2012 - 2013                     |
| UTSW Medical Center  |                                 |
| ◇ Brachytherapy Clinical Protocol Committee  | 2009 - 2012                     |
| GOG 0219, GOG 9918, GOG 0238, GOG 0249   |                                 |
| UTSW Medical Center  |                                 |

#### Ad Hoc Reviewer Service

- |   |                 |
|---|-----------------|
| ◇ Medical Physics                                     | 2006 to present |
| ◇ Physics in Medicine and Biology                     | 2009 to present |
| ◇ Physica Medica                                      | 2012 to present |
| ◇ Journal of Applied Clinical Medical Physics (JACMP) | 2018 to present |

## HONORS AND AWARDS

### Honors and Awards

- |  |               |
|--|---------------|
| School of Health Professions                         |               |
| ◇ 2018 Outstanding Educator                          | November 2018 |
| ◇ 2015 Outstanding Educator                          | October 2015  |
| National Instruments                                 |               |
| ◇ Recipient of the 2008 Medical Device Grant Program | December 2008 |

**HARDWARE  
AND SOFTWARE  
SKILLS**

**Hardware and Software Expertise**

Instrumentation, Control, Data Acquisition, Test, and Measurement:

- Simulink, LabVIEW

Numerical Analysis

- MATLAB, Origin, Mathematica

Desktop Editing and Productivity Software

- Photoshop
- L<sup>A</sup>T<sub>E</sub>X
- Microsoft Office, Google Docs

Operating Systems

- Microsoft Windows, Linux, Unix

Monte Carlo Simulation

- EGSnrc

**SECURITY  
CLEARANCE**

**Security Clearance**

Gamma Knife Security Clearance

August 2011 - present

**REFERENCES**

**References**

Available upon request