

Bulent Aydogan, Ph.D.

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ACADEMIC APPOINTMENTS

2001-2003	Adjunct Clinical Assistant Professor, University of Medicine and Dentistry of New Jersey, New Brunswick, NJ
2003-2005	Clinical Assistant Professor, Department of Radiation Oncology, Mount Sinai School of Medicine, New York, NY
2005-2006	Instructor, Department of Radiation and Cellular Oncology, The University of Chicago, Chicago, IL
2006-2011	Assistant Professor, Department of Radiation and Cellular Oncology, The University of Chicago, Chicago, IL
2011-	Associate Professor, Department of Radiation and Cellular Oncology, The University of Chicago, Chicago, IL

Department and Center Appointments

1995	Health Physics Assistant, - ORAU, Oak Ridge, TN
2001-2003	Junior Medical Physicist, Saint Peter's University Hospital, NJ
2003-2005	Medical Physicist, Department of Radiation Oncology, Mount Sinai School of Medicine, New York, NY
2005-2008	Medical Physicist, Department of Radiation Oncology, University of Illinois Medical Center, Chicago, IL
2005-	Instructor, Graduate Program in Medical Physics, The University of Chicago, Chicago, IL
2007-	Director of Medical Physics, Department of Radiation Oncology, University of Illinois Medical Center, Chicago, IL

2009 Member, Comprehensive Cancer Center, The University of Chicago, Chicago, IL

ACADEMIC TRAINING

1987-1992 B.S., Engineering Physics. Middle East Technical University, Turkey
1994-1996 M.Sc., Nuclear Engineering. The University of Tennessee, Knoxville TN
1996-2001 Ph.D., Medical Physics. University of Florida, Gainesville, FL

BOARD CERTIFICATION AND LICENSURE

2003 Therapeutic Radiological Physics, NY State License
2004 Therapeutic Radiological Physics, American Board of Radiology
2005 Therapeutic Radiological Physics, IL State License

SCHOLARSHIP

(a) Peer-reviewed publications in the primary literature, exclusive of abstracts:

1. Sparks R and Aydogan B. 1996. Comparison of the effectiveness of some common animal data and scaling techniques in estimating human radiation dose. Proceedings of Sixth International Radiopharmaceutical Dosimetry Symposium. Gatlinburg, TN: Oak Ridge Associated Universities.
2. Aydogan B, Sparks R, Miller LF, Stubbs J. 1996. Uncertainty analysis for absorbed dose from a brain receptor-imaging agent. Proceedings of Sixth International Radiopharmaceutical Dosimetry Symposium. Gatlinburg, TN: Oak Ridge Associated Universities.
3. Bouchet LG, Bolch WE, and Aydogan B. 1997. A new direct internal dosimetric approach for non-uniform activity distribution using the MIRD Schema. J Nuc Med S:731-740.
4. Bolch WE, Bouchet LG, Robertson JS, Wessels BW, Siegel JA, Howell RW, Erdi AK, Aydogan B, Costes S, Watson EE, Brill AB, Charkes ND, Fisher DR, Hays MT, Thomas SR. 1999. MIRD pamphlet No. 17: the dosimetry of non-uniform activity distributions--radionuclide S values at the voxel level. Medical Internal Radiation Dose Committee. J Nuc Med 40(1):11S-36S.
<http://jnm.snmjournals.org/content/40/1/11S.long>

5. Aydogan B, DT Marshall, SG. Swarts, JE Turner, AJ Boone, NG Richards and WE Bolch. 2002. Site-Specific OH Attack to the Sugar Moiety of DNA: A Comparison of Experimental Data and Computational Simulation. *Radiat Res* 157(1): 38-44.
<http://www.jstor.org/stable/3580850>
6. Aydogan B, Mundt AJ, Smith BD, et al. 2006. A dosimetric analysis of intensity-modulated radiation therapy (IMRT) as an alternative to adjuvant high-dose-rate (HDR) brachytherapy in early endometrial cancer patients. *Int J Radiat Oncol Biol Phys* 65:266-273.
<http://www.sciencedirect.com/science/article/pii/S0360301606000861>
7. Aydogan, B., Bolch, W. E., Swarts, S.G., Turner, J. E. and Marshall, D. T. 2008. Monte Carlo simulations of site-specific radical attack to DNA bases. *Radiat Res* 169(2):223-31.
<http://www.jstor.org/stable/30130600>
8. Roeske JC, Aydogan B, Humm JL. 2008. Small Scale and Microdosimetry: Challenges and Future Directions. *Sem Nucl Med* 38(5):367-83.
<http://www.sciencedirect.com/science/article/pii/S0001299808000706>
9. Mell KL, Tiryaki H, Roeske JC, Mundt AJ, Aydogan B. 2008. Dosimetric comparison of bone marrow-sparing intensity modulated radiation therapy versus conventional techniques for treatment of gynecological cancer. *Int J Radiat Oncol Biol Phys*. 71(5):1504-10.
<http://www.sciencedirect.com/science/article/pii/S0360301608007621>
10. Wilkie JL, Smith BD, Tiryaki H, Aydogan B. 2008. Feasibility Study for Linac-based Intensity Modulated Total Marrow Irradiation. *Med Phys* 35:5609-18.
<http://proxy.uchicago.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=19175118&site=ehost-live&scope=site>
11. Altman MB, Vesper BJ, Smith BD, Stinauer MA, Pelizzari CA, Aydogan B, Reft CS, Radosevich JA, Chmura SJ, Roeske JC. 2009. Characterization of a novel phantom for three-dimensional in vitro cell experiments. *Phys Med Biol* 54:75-82.
<http://iopscience.iop.org/0031-9155/54/5/N02/>
12. Altman MB, Stinauer MA, Javier D, Smith BD, Herman LC, Pytynia ML, Aydogan B, Pelizzari CA, Chmura SJ, Roeske JC. 2009. Validation of temporal optimization effects for a single fraction of radiation in vitro. *Int J Radiat Oncol Biol Phys* 75(4):1240-6.
<http://www.sciencedirect.com/science/article/pii/S0360301609027680>
13. Devisetty K, Mell LK, Salama JK, Schomas DA, Miller RC, Jani AB, Roeske JC, Aydogan B, Chmura SJ. 2009. A multi-institutional acute gastrointestinal toxicity analysis of anal cancer patients treated

with concurrent intensity-modulated radiation therapy (IMRT) and chemotherapy. *Radiother Oncol* 93(2):298-301.

<http://www.sciencedirect.com/science/article/pii/S0167814009004265>

14. Li, J., Rajh T., Chaudhary A., Chmura S., Pelizzari C., Wietholt C., Redmond P., Aydogan B. 2010. AuNP-DG: Deoxyglucose Labeled Gold Nanoparticles as X-ray Computed Tomography Contrast Agents for Cancer Imaging. *Molec Imag Biol* 12(5):463-7.
<http://link.springer.com/article/10.1007%2Fs11307-010-0299-8>
15. Aydogan B., Li, J., Rajh T., Chaudhary A., Chmura S., Pelizzari C., Wietholt C. 2010. A novel functional CT to improve therapeutic radiation delivery. *Phys Biol Med* 55(15):4389-97.
<http://iopscience.iop.org/0031-9155/55/15/013/>
16. Rose BS, Aydogan B, et al. 2011. Normal Tissue Complication Probability Modeling of Acute Hematologic Toxicity in Cervical Cancer Patients Treated with Chemoradiotherapy. *Int J Radiat Oncol Biol Phys* 79(3):800-7.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907446/>
17. Yeginer M, Roeske JR, Aydogan B. 2011. Linear accelerator-based intensity-modulated total marrow irradiation technique for treatment of hematologic malignancies: a dosimetric feasibility study. *Int J Radiat Oncol Biol Phys* 79(4):1256-65.
<http://www.sciencedirect.com/science/article/pii/S0360301610008783>
18. Tarjan G, Haines III GK, Vesper BJ, Xue J, Altman MB, Yarmolyuk Y, Elseth KM, Roeske JC, Aydogan B, Radosvich JA. 2010. Part II. Initial molecular and cellular characterization of high nitric oxide-adapted human tongue squamous cell carcinoma cell lines. *Tumor Biol* 32(1):87-98.
<http://link.springer.com/article/10.1007%2Fs13277-010-0102-0>
19. Aydogan B, M Yeginer, G Kavak, J Fan, JA Radosvich 2011. Total Marrow Irradiation with RapidArc Volumetric Arc Therapy. *Int J Radiat Oncol Biol Phys*. 81(2):592-9.
<http://www.sciencedirect.com/science/article/pii/S0360301610036552>
20. Surucu M, M Yeginer, G Kavak, J Fan, JA Radosvich, B Aydogan. 2012. Verification of Dose Distribution for Volumetric Modulated Arc Therapy Total Marrow Irradiation (VMAT-TMI) in human-like phantom. *Med. Phys*. 39(1):281-8.
<http://scitation.aip.org/content/aapm/journal/medphys/39/1/10.1118/1.3668055>
21. Gorshkova I, Zhou T, Mathew B, Jacobson JR, Takekoshi D, Bhattacharya P, Smith B, Aydogan B, Weichselbaum RR, Natarajan V, Garcia JG, Berdyshev EV. 2012. Inhibition of serine palmitoyltransferase delays the onset of radiation-induced pulmonary fibrosis through

- the negative regulation of sphingosine kinase-1 expression. *J Lipid Res* 53(8):1553-68.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540856/>
22. Vesper BJ, Onul A, Haines GK 3rd, Tarjan G, Xue J, Elseth KM, Aydogan B, Altman MB, Roeske JC, Paradise WA, De Vitto H, Radosevich JA. 2013. Part I. Molecular and cellular characterization of high nitric oxide-adapted human breast adenocarcinoma cell lines. *Tumour Biol* 34(1):203-14.
<http://link.springer.com/article/10.1007%2Fs13277-012-0530-0>
23. Mathew B, Jacobson JR, Siegler JH, Moitra J, Blasco M, Xie L, Unzueta C, Zhou T, Evenoski C, Al-Sakka M, Sharma R, Huey B, Aydogan B, Smith B, Jayaraman S, Reddy NM, Reddy SP, Fingerle-Rowson G, Bucala R, Dudek SM, Natarajan V, Weichselbaum RR, Garcia JG. 2013. Role of migratory inhibition factor in age-related susceptibility to radiation lung injury via NF-E2-related factor-2 and antioxidant regulation. *Am J Respir Cell Mol Biol* 49(2):269-78.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3824032/>
24. Aqil M, Elseth KM, Vesper BJ, Deliu Z, Aydogan B, Xue J, Radosevich JA. 2014. Part I-mechanism of adaptation: high nitric oxide adapted A549 cells show enhanced DNA damage response and activation of antiapoptotic pathways. *Tumour Biol* 35(3):2403-15.
<http://link.springer.com/article/10.1007%2Fs13277-013-1318-6>
25. Koshy M, Malik R, Sher DJ, Spiotto M, Mahmood U, Aydogan B, Weichselbaum RR. 2014. The effect of radiotherapy dose on survival in stage III non-small-cell lung cancer patients undergoing definitive chemoradiotherapy. *Clin Lung Cancer*. 15(5):365-71.
<http://www.sciencedirect.com/science/article/pii/S1525730414001119>
26. Patel P, Aydogan B, Koshy M, Mahmud D, Oh A, Saraf SL, Quigley JG, Khan I, Sweiss K, Mahmud N, Peace DJ, DeMasi V, Awan AM, Weichselbaum RR, Rondelli D. 2014. Combination of Linear Accelerator-Based Intensity-Modulated Total Marrow Irradiation and Myeloablative Fludarabine/Busulfan: A Phase I Study. *Biol Blood Marrow Transplant* (12):2034-41.
<http://www.sciencedirect.com/science/article/pii/S1083879114005606>

(b) Peer-reviewed works accepted or in press

27. Irina Bronova, Brett Smith, **Bulent Aydogan**, Ralph R. Weichselbaum, Kiran Vemuri, Katalin Erdelyi, Alex Makriyannis, Pal Pacher, and Evgeny Berdyshev. Peripheral Targeting of CB₁ Cannabinoid Receptors Protects from Radiation-Induced Pulmonary Fibrosis. *Am J Res C Mol Biol* (Accepted for publication March 2015)
28. He Zhu, Kaveh Zakeri, Florin Vaida, Ruben Carmona, Kaivan K Dadachanji, Ryan Bair, **Bulent Aydogan**, Yasmin Hasan, Catheryn M. Yashar, Loren K. Mell, Longitudinal Study of Acute Hematologic Toxicity in

Cervical Cancer Patients Treated with Chemoradiotherapy, Journal of Medical Imaging and Radiation Oncology (Accepted for publication, January 2015)

29. Kang-Hyun Ahn, Ryan Manger, Howard J. Halpern, **Aydogan B [senior author]**. Evaluation of skin dose from electromagnetic surface fiducially. Journal of Applied Clinical Medical Physics (Accepted for publication, January 2015)

(c) Book chapters:

- Roeske JC, Aydogan B, Humm JL. 2010. Microdosimetry. In: Speer TW (Editor). Targeted Radionuclide Therapy. Lippincott Williams & Wilkins.
- Aydogan B and Rondelli D. 2011. Image Guided Simultaneous Integrated Boost Total Marrow Irradiation (IG-SIB-TMI). In: Mundt AJ and Roeske JC (Editors). IGRT: A Clinical Perspective. B.C. Decker, Inc., Hamilton, Ontario, Canada.
- Aydogan B. 2011. QA of Total Body and Total Marrow Irradiation. In: : T Pawlciki, P Dunscombe, AJ. Mundt and P Scalliet. (Editors), QA and Safety in Radiotherapy. CRC Press, Taylor & Francis.
- Aydogan B. 2013 Radiation treatment of Head & Neck Cancers. In: Radosevich JA (Editor), Head and Neck Cancers. Lippincott Williams & Wilkins.
- Bassiony M., Aydogan B., and Radosevich J. 2013. Role of Imaging in Head & Neck Cancers. In: Radosevich JA (Editor), Head and Neck Cancers. Lippincott Williams & Wilkins.
- Aydogan B. 2014 A brief Introduction to Ultraviolet Radiation. In: Radosevich JA (Editor), UV Radiation: Applications, Effects, and Properties. Nova Publishing

(d) Clinical trials that are ongoing and unpublished

1. A Phase I Trial of Total Marrow Irradiation in Addition to High Dose Melphalan Conditioning Prior to Autologous Transplant for Multiple Myeloma Following Initial Induction Therapy. Role: Co-PI; Status: Open
2. Phase I Trial of Total Marrow Irradiation in Addition to High Dose Melphalan Conditioning prior to Autologous Transplant for Patients with Relapsed or Refractory Multiple Myeloma. Role: Co-PI; Status: Open
3. A Phase I Study of Intensity Modulated Total Marrow Irradiation (IM-TMI) in Addition to Fludarabine/Busulfan Conditioning for Allogeneic Transplantation for Advanced Hematologic Malignancies. Role: Co-PI; Status: Clinical trial ended in January 2014.

4. A Phase I Study Of Intensity Modulated Total Marrow Irradiation (IMTMI) in Addition to Fludarabine/ Melfhelan Conditioning For Allogeneic Transplantation for Advanced Hematologic Malignancies

Role: Co-PI; Status: Open

(e) Works in review, in preparation, etc. not yet publically available [list ONLY if available for BSD review]

Clinical Trial:

A Multi institutional Phase II Study of Intensity Modulated Total Marrow Irradiation (IM-TMI) in Addition to Fludarabine/Busulfan Conditioning for Allogeneic Transplantation for Advanced Hematologic Malignancies.

Role: Co-PI

Publications:

1. Kang H, Smith B, Ozturk N, and **Aydogan B [senior author]**. A preplanning method and improved workflow for SRS treatments. (Submitted to Radiotherapy and Oncology)
2. Surucu M, Sarigul N, Chester R and **Aydogan B [senior author]**. A practical Framework for measuring dose in bone and lung (Submitted to Medical Physics)
3. Sarigul N, Surucu M, Chester R and **Aydogan B [senior author]**. Examination of Burlin cavity theory for TLDs in bone and lung. (Submitted to Physics in Medicine and Biology)
4. Sarigul N, Surucu M, Chester R and **Aydogan B** Study of Energy response of BEO OSL detectors with Monte Caro and Burlin cavity theory. (Submitted to Journal of Radiation Research)
5. **Aydogan B**, Koshy M, Kang H, Smith B, Ozturk N, Rondelli D, Weichselbaum RR. Clinical experience with Linac based IMTMI: Evaluation of set-up and dosimetric accuracy. (Submitted to Medical Physics)
6. Sarigul N, Surucu M, and **Aydogan B [senior author]**. Electron spectrum effect on lif response to 6 mv photon beam using monte carlo and burlin cavity theory (Submitted to Radiation Measurement)
7. Andrew Woerner, John Roeske, Matthew Harkenrider, John Fan, **Bulent Aydogan**, Matthew Koshy, Robert Laureckas, Faisal Vali, and Murat Surucu. A Multi-Institutional Study to Assess Adherence to Lung Stereotactic Body Radiotherapy Planning Goals (Submitted to Medical Physics)

(f) Other works that are publically available (websites, interviews, publications in the popular press, testimony, computer programs, protocols, reagents, inventions, patents not listed above, etc.)

- 2008 New Irradiation Method Holds Potential for Improving Bone Marrow Transplant Preconditioning Step, 50th AAPM Meeting In Houston, July 27-31: Science Highlights.
<http://www.medicalnewstoday.com/articles/116536.php>
- 2008 New Irradiation Method Holds Potential for Improving Bone Marrow Transplant Preconditioning Step, 50th AAPM Meeting In Houston, July 27-31: Science Highlights.
<http://www.newswise.com/articles/science-highlights-of-the-50th-aapm-meeting-in-houston-july-27-to-july-31>
- 2011 ACS March Newsletter, A new gold standard. (no longer online)
- 2011 Researchers Find Rapidarc® Radiotherapy from Varian Medical Systems can Quickly and Accurately Deliver Total Marrow Irradiation (TMI) Treatments for Patients with Blood Cancers. Varian Press Release.
<http://investors.varian.com/index.php?s=43&item=693>
- 2011 Varian's RapidArc Can be Used to Treat Blood Cancers Through TMI
<http://www.itnonline.com/article/varian%E2%80%99s-rapidarc-can-be-used-treat-blood-cancers-through-tmi>
- 2011 Patent information
AUNP-DG: A Novel Multimodality Functional Imaging Contrast Agent. [Provisional patent application has been approved.]
<http://www.freepatentsonline.com/y2011/0020243.html>

FUNDING

(a) Past:

1. Whitaker Foundation. PI: Marshall. My role: Co-PI. Title: "A model to determine radiation damage to DNA." Total direct cost: 375,000.00. Annual effort: 3.6 Calendar months. Project period: 7/1/01-6/30/04.
2. NIH 1RO1-CA129553-01A. PI: Thulborn. My role: Co-Investigator. Title: "MRS Sodium imaging tumor response and adaptive therapy in brain tumors." Annual effort: 1.2 Calendar months. Project period: 12/1/08-11/31/10.
3. Varian Medical Systems. PI: Aydogan. Title: "Development of IMTMI technique for the treatment of hematological malignancies." Total direct cost: \$120,000. Annual effort: 2.4 Calendar months. Project period: 7/1/07-12/30/2009.
4. American Cancer Society. PI: Aydogan. Title: "A novel multi modality functional CT image contrast agent for radiotherapy application." Total direct cost: \$100,000. Annual effort: 1.2 Calendar months. Project period: 6/1/10-12/30/11.
5. Argonne National Laboratory. PI: Aydogan. Title: "AuNP-DG: A novel functional CT image contrast agent." Project period: 12/1/09-11/30/12.

6. NSF A0646. PI: Nayfeh. My Role: Co-PI. Title: "Catalyzing New International Collaborations: US-MENA Countries Research and Education in Nano-Organics. Total direct cost: \$91,234. Project period: 3/1/12-3/1/2015

(b) Current:

2. NIH 1P01HL098050. PI: Garcia. My role: Co- Investigator in Project 4. Title: "Role of Sphingolipids in the Pathobiology of Lung Injury." Annual effort: 1.2 Calendar months. Project period: 7/1/11-3/30/16.

3. Varian Medical Systems. PI: Aydogan. Title: "Development of VMAT TMI technique for the treatment of hematological malignancies." Total direct costs: \$69,695. 2.4 Calendar months. Project period: 7/1/10 - 6/30/16.

4. TUBITAK Turkish Science Foundation. PI: Hakyol. My role: Consultant. Title: "Study of OSL for small field dosimetry. Total direct costs: \$135,500. Project period: 7/1/14 - 6/30/16.

(c) Pending:

1. Varian Medical Systems. PI: Aydogan. Title: "Advancing the RT of systemic cancers: Hematological cancers, polymetastases and oligometastases." Total direct costs: \$500,000. 2.4 Calendar months Project period: 9/1/15 - 8/30/18.

2. NIH 1U19AI119035-01. PI: Bartholomew. My Role: Core Leader. Title: "Center for Medical Countermeasures against Radiation Consortium. Total direct costs: \$1,779,535. 3.0 Calendar months. Project period: 9/1/15 - 8/30/20.

HONORS AND AWARDS

1987	Best senior student, C. Mehmet High School, Turkey
1992	Ranked 1 st in the Engineering Physics, The Middle East Technical University, Gaziantep, Turkey
1996	Best Student Presentation in Sixth International Radiopharmaceutical Dosimetry Symposium. 1996,
2000	2 nd place in Student Presentations and Travel Award, AAPM Florida Chapter Meeting,
2001	1 st place in student projects, Travel Award, Radiation Research Society,
2004	Travel Award, Radiation Research Society
2006	Travel Award, VII th Radiation Damage to DNA Workshop
2009	Chair, Organizing Committee, Turkish Medical Physics Association 1 st Radiation Therapy Workshop, IMRT&IGRT
2010-2011	Co-Director, Therapy Program Educational Track, 53 rd Annual AAPM Meeting, August 2011

- 2012 Chair, Organizing Committee, ISEP AAPM IGRT Workshop, Antalya Turkey
- 2011-2012 Director, Therapy Program Educational Track, 54th Annual AAPM Meeting, August 2012
- 2015 Chair, Organizing Committee, NSF-Gazi University, Nanotechnology Meeting, Ankara, Turkey
- 2016 Vice Chair of Conference, ISOBM Annual Meeting, The International Society Of Oncology and Biomarker, Chicago, USA

INVITED SPEAKING

- 2006 Computational modeling of radiation damage to DNA in radiation therapy. IXth Radiation damage to DNA workshop. Antalya, Turkey
- 2007 Verification of Lung Tumor Doses Calculated by the Eclipse AAA and Pinnacle CC Algorithms, 48th AAPM Annual Meeting, Minnesota
- 2007 Clinical issues related to IMRT, ASTRO's 49th Annual Meeting, Los Angeles
- 2007 Site specific clinical issues related to IMRT and IGRT, XI Turkish Medical Physics Congress, Antalya, Turkey
- 2007 IMRT in head and neck and gynecological malignancies. Image Guided Radiation Therapy. Varian Turkey and Florence Nightingale Hospitals, Istanbul Turkey
- 2008 Grand Rounds: Linac based intensity modulated bone marrow irradiation (IMTMI), Washington University, St Louis, MO
- 2008 Nanoparticles in Radiation Therapy, Phillips Inc., Germany
- 2008 Clinical issues related to IMRT, ASTRO's 50th Annual Meeting, Boston, MA
- 2008 IMRT in treatment of gynecological cancer patients. 50th AAPM Annual Meeting, Houston, TX
- 2008 Feasibility of IMTMI in the treatment of advanced hematological malignancies. 50th AAPM Annual Meeting, Houston, TX
- 2009 Grand Rounds: IMTMI in the treatment of advanced hematological malignancies, UIC, Chicago, IL
- 2009 IMRT for prostate and pelvis, Turkish Medical Physics Society Workshop on IMRT and IGRT, Istanbul Turkey
- 2009 RapidArc, Turkish Medical Physics Society Workshop on IMRT and IGRT, Istanbul Turkey
- 2009 Image guided IMRT for large fields, Turkish Medical Physics Society Workshop on IMRT and IGRT, Istanbul Turkey
- 2009 IMRT in treatment of gynecological cancer patients. 51th AAPM Annual Meeting, Anaheim CA

- 2009 Clinical issues related to IMRT, ASTRO 51th Annual Meeting, Chicago, IL
- 2009 Grand Rounds: Linac based intensity modulated bone marrow irradiation (IMTMI), Loyola University, Chicago IL
- 2010 A novel functional contrast agent for functional imaging of cancer. 2nd World Congress of International Academy of NanoMedicine, Antalya Turkey
- 2010 Can nanoparticles facilitate better cancer diagnosis and treatment? Karachi University, Pakistan
- 2011 Targeted nanogold contrast agent for functional imaging of cancer, Henry Ford Hospitals, Detroit, MI
- 2011 Grand Rounds: Can adjuvant Total Marrow Irradiation improve the therapeutic efficacy in patients with hematological malignancies? Henry Ford Hospitals, Detroit, MI
- 2011 Initial Clinical Experience With Linac-based Intensity Modulated Total Marrow Irradiation (im-tmi). ASTRO 53rd Annual meeting, Miami, FL
- 2012 Brachytherapy in patients with gynecological cancers, ASTRO Spring Refresher Meeting, Chicago, IL
- 2012 IMRT in clinical setting, AAPM ISEP Meeting, Antalya, Turkey
- 2012 Nanoparticle platforms for cancer imaging. 3rd World Congress NanoMed, International Academy of Nanomedicine (IANM), Ankara Turkey.
- 2012 IGRT, National Cancer Center, Baku, Azerbaijan,
- 2012 SRS and SBRT, National Cancer Center, Baku, Azerbaijan
- 2012 Examination of General Cavity Theory for Magnesium and Titanium Doped Lithium Fluoride (TLD-100) in Bone and Lung Heterogeneities 54rd AAPM Annual Meeting, 2012
- 2013 Clinical trials of IMTMI for the treatment of patients with hematological malignancies, Hacettepe University, Turkey
- 2013 IMTMI may increase the role of radiation in the care of hematological malignancies, Varian Research Meeting, Atlanta, GA
- 2014 Current and Future Trends in Radiation Therapy, Cancer Institute of Azerbaijan
- 2014 Nanotechnology for theranostic cancer applications. NSF sponsored workshop, Gazi University, Turkey
- 2014 Open Innovation in Medicine and Nanotechnology, Gazi University, Turkey

VISITING PROFESSOR

- 2008 University of Washington, St Luis, MO
- 2011 Henry Ford, MI
- 2012 Loyola University, Chicago, IL

2012 Memorial Sloan Kettering, New York, NY
2015 Loyola University, Chicago, IL

INVITED, ELECTED, OR APPOINTED EXTRAMURAL SERVICE

2007 Invited Faculty, 49th American Association of Medical Physicists (AAPM) Annual Meeting
2007 Invited Faculty, 49th American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting
2008 Invited Faculty, 50th AAPM Annual Meeting
2008 Invited Faculty, 50th ASTRO Annual Meeting
2009 Invited Faculty, 51st AAPM Annual Meeting
2009 Invited Faculty, 51st ASTRO Annual Meeting
2009 AAPM Summer Mentor, 2009 AAPM Summer Undergraduate Fellowship Program
2009 Organizing Committee Chair, Turkish Medical Physics Association 1st Radiation Therapy Workshop, IMRT&IGRT
2010 Chair, Nanotechnology in Radiation Therapy, 52nd AAPM Annual Meeting
2010-2011 Co-Director, Therapy Program Educational Track, 53rd Annual AAPM Meeting,
2011 Chair, Small Animal Imaging, 53rd AAPM Annual Meeting
2011-2012 Director, Therapy Program Educational Track, 54th Annual AAPM Meeting,
2012 Invited Faculty, ASTRO Spring Refresher Course
2012 Chair, Organizing Committee, ISEP AAPM IGRT Workshop, Antalya Turkey

EDITORIAL RESPONSIBILITIES

Editorial Board Member: Journal of Applied Clinical Medical Physics

Section Editor : Journal of Applied Clinical Medical Physics

Guest Associate Editor: Medical Physics

Reviewer: Health Physics, International Journal of Radiation Oncology*Biological Physics, Medical Physics, Journal of Nuclear Medicine, Radiation Research, Journal of Applied Clinical Medical Physics

PROFESSIONAL SOCIETIES

Elected or invited membership:

American Association of Physicists in Medicine (AAPM)
American Society of Therapeutic Radiation Oncology (ASTRO)
European Society of Therapeutic Radiation Oncology (ESTRO)
Radiation Research Society (RRS)

EDUCATION

The College (B.A., B.S.):

- 2009 Advisor/Mentor, Adrian Sanchez, 2009 AAPM Summer Undergraduate Fellowship Program
- 2013-2014 Advisor/Mentor, Clinical Internship, Adamou Abubakr, Medical Physics senior.

Graduate programs (Ph.D.):

- 2007 PhD Thesis Committee, Jashua Haslam
- 2007 Mentor/Supervise Andrew Jamieson
- 2008 Mentor/Supervise Eric Pearson
- 2009 Mentor/Supervise Zachary Labby
- 2009 PhD Thesis Committee, Mike Altman
- 2010-2013 Co-principal advisor, Gulbin Kavak
- 2011-2014 Co-principal advisor, Neslihan Sarigul

Graduate medical education (residency and clinical fellowships):

- 2006-2008 Mentor, Hanifi Tiryaki, PhD, medical physics trainee, (Currently is a chief of medical physics in Elgin, IL)
- 2007-2008 Mentor, Joel Wilkie, PhD, postdoctoral fellow, (Completed his medical physics residency at The University of Michigan, Currently Medical Student at The University of Michigan)
- 2008-2011 Mentor, Mete Yeginer, PhD postdoctoral fellow, (Assistant Professor at Hacettepe University, Turkey)
- 2008-2011 Mentor, Ji Li, PhD postdoctoral fellow, (Currently clinical physicists at the University of Chicago)
- 2008- Co-supervise one dosimetry trainee each year, LaCross Dosimetry School Clinical Internship program at The University of Illinois at Chicago.
- 2010-2013 Mentor, Kang-Hun Ahn, PhD, junior physicist. Currently ABR certified chief medical physicist working in St. Luis, MI.
- 2014- Clinical Mentor, Rodney Wiersma, PhD, Assistant Professor

Continuing medical education and teaching:

- 2005- Clinical training and in-service lectures at UIC
- 2005- Clinical Instructor, Radiation oncology residents at UIC
- 2005- Organize and take part in teaching one-month intensive radiation physics course,
- 2005-2010 Developed curriculum for a year-long radiation oncology physics course for radiation oncology and physics residents. I mentored a junior physicist to teach it.
- 2005- Partake in teaching year around radiation physics course for residents.

2005-2008 Teach 25% of Physics of Radiation Therapy, MPHY35100,
2006-2010 Research in Radiation Therapy, MPHY 41700
2008 Developed curriculum for Monte Carlo techniques in Radiotherapy
for Practicum in the Physics of Radiation Therapy, MPHY 34400
2008- Teach 25% of the MPHY 34400
2009- Developed curriculum for Health Physics for Medical Physicists
(MPHY 39700)
2009- Teach 50% of the GPMP Health Physics course, MPHY 39700

SERVICE

University of Chicago

Committee membership:

Graduate Program in Medical Physics (GPMP)

Member of Curriculum Committee in GPMP

Member of Seminars Committee in GPMP

Member of Comprehensive Cancer Center

Grant Reviewer, Comprehensive Cancer Center

Grant Reviewer, The Ludwig Center

Leadership:

Director of Medical Physics at the University of Illinois at Chicago (UIC).

Chair, QA program in the Radiation Oncology Department at UIC

Director of Therapy Education, 2012 AAPM Annual Meeting

Other:

Developed the QA program for the Radiation Oncology Department at UIC

Extramural (not indicated above)

Leadership roles:

2010- Founder and President of the Board, Society of Turkish American
Scholars (STAS), Chicago IL. <http://www.tascholars.org/>
STAS is an independent academic organization founded in 2010
with the aim of building an academic bridge between the US and
Turkey.