CURRICULUM VITAE
The Johns Hopkins University School of Medicine

Signature:  03-21-2022

Mahadevappa Mahesh, MS, PhD, FAAPM, FACR, FACMP, FSCCT, FIOMP.

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

Johns Hopkins University School of Medicine

2016 – Present	Professor of Radiology – Radiological Physics Division, The Russell H. Morgan Department of Radiology and Radiological Science, Johns Hopkins University School of Medicine, Baltimore, MD
2016 – Present	Professor of Medicine – Division of Cardiology, Johns Hopkins University School of Medicine, Baltimore, MD
2012 – Present	Associate Faculty, Armstrong Institute for Patient Safety and Quality, Johns Hopkins University School of Medicine, Baltimore, MD
2009 – Present	Faculty, Whiting School of Engineering – Engineering and Applied Science Programs for Professionals, Johns Hopkins University, Baltimore, MD

Johns Hopkins Hospital

2016 – Present	Medical Physicist – Johns Hopkins Hospital, Baltimore, MD

Johns Hopkins Bloomberg School of Public Health

2015 – Present	Professor, Department of Environmental Health and Engineering

Personal Data

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Education and Training

Year	Degree	Institution	Discipline
1988-1993	Doctoral of Science	Medical College of Wisconsin, Milwaukee, WI	Medical Physics-Biophysics
1987-1988	Master of Science	Marquette University, Milwaukee, WI	Physics
1984-1986	Master of Science	University of Mysore, Mysore, India	Solid State Physics
1981-1984	Bachelor of Science	University of Mysore, Mysore, India	Physics, Elec & Math

Professional Experience

Year	Position	Institution
1986	Lecturer	Marimallappa Junior College, Mysore, India
1987 – 1988	Teaching Assistant – Graduate Studies	Marquette University, Milwaukee, WI
1988	Research Assistant – Graduate Studies	Marquette University, Milwaukee, WI
1988 – 1993	Research Fellow – Doctoral Studies	Medical College of Wisconsin, Milwaukee, WI
1993 – 2016	Chief Physicist	Johns Hopkins Hospital, Baltimore, MD
1994 – 2005	Program Faculty, Radiology and Nuclear Medicine Technology School	Johns Hopkins Hospital, Baltimore, MD
1996 – 2003	Research Associate – Radiology	Johns Hopkins University School of Medicine, Baltimore, MD
2002 – 2003	Instructor - Department of Radiology	Johns Hopkins University School of Medicine, Baltimore, MD
2003 – 2008	Assistant Professor of Radiology	Johns Hopkins University School of Medicine, Baltimore, MD
2007 – 2008	Assistant Professor of Medicine – Division of Cardiology	Johns Hopkins University School of Medicine, Baltimore, MD
2003 – 2008	Associate Professor of Radiology	Johns Hopkins University School of Medicine, Baltimore, MD
2008 – 2016	Associate Professor of Medicine – Division of Cardiology	Johns Hopkins University School of Medicine, Baltimore, MD
2009 – 2017	Special Research Volunteer	National Institutes of Health (NIH), Bethesda, MD

PUBLICATIONS:

Peer-reviewed original research articles

1. Feldott J, **Mahesh M.** Optical Absorption and Conductivity Studies of Sensitizing Dyes and AgBr Films. J Imaging Science. 1990; 34(2): 72-77.
2. Pintar FA, Cusick JF, Yoganandan N, Reinartz J, **Mahesh M.** Biomechanics of Lumbar Facetectomy under Compression-Flexion. Spine. 1992; 7(7): 804-810. PMID: 1502646
3. Myers TJ, Battocletti JH, **Mahesh M**, Gulati M, Wilson CR, Pintar FA, Reinartz J. Comparison of NMR Spectroscopy with DPA and DXA in the Measurement of Thoracic Vertebral Bone Mineral Density: Compression Strength vs Bone Mineral. Osteoporosis International. 1994; 4(3): 129-137. PMID: 8069051
4. Rosenthal LS, Beck TJ, Williams JR, **Mahesh M**, Herman MG, Dinerman, JL, Calkins H, Lawrence JH. Acute Radiation Dermatitis following Radiofrequency Catheter Ablation of Atrioventricular Nodal Re-entrant Tachycardia. PACE.1997; 20(7): 1834-1839. PMID: 9249839
5. Rosenthal LS, **Mahesh M**, Beck TJ, Saul JP, Miller JM, Kay N, Klein LS, Huang S, Gillette P, Prystowsky E, Carlson M, Yong P, Lawrence JH. Calkins H. Predictors of Fluoroscopy Time and Estimated Radiation Exposure during Radiofrequency Catheter Ablation Procedures: A Multicenter Experience. American Journal of Cardiology. 1998; 82(4): 451- 458. PMID: 97223632
6. **Mahesh M.** Fluoroscopy: Patient Radiation Exposure Issues. RadioGraphics. 2001; 21(4): 1003-1045. ***[Top 50 most-cited articles-March 2013]*** **Review.** PMID: 11452079 [Downloaded 146,722 - Dec-2021]
7. **Mahesh M,** Scatarige J, Cooper J, Fishman E. Dose and Pitch Relationship for a Particular Multislice CT scanner. American Journal of Roentgenology. 2001; 177(6): 1273-1275. PMID: 11717063

8. **Mahesh M.** Search for Isotropic Resolution in Computed Tomography from Conventional to Multislice. RadioGraphics. 2002; 22(4): 949-962. **Review.** PMID: 12110725
9. Nasir K, Post WS, Budoff M, Fishman EK, **Mahesh M**, Lima J, Blumenthal RS. Electron Beam CT vs Helical CT scans for Assessing Coronary Calcifications: Current Utility and Future Directions. American Heart Journal. 2003; 146(6): 969-977. PMID: 14660987
10. Lickfett L*, **Mahesh M***, Vasamreddy C, Bradley D, Jayam V, Eldadah Z, Dickfeld T, Kearney D, Darshan D, Luderitz B, Berger R, Calkins H. Radiation Exposure during Catheter Ablation of Atrial Fibrillation. Circulation. 2004; 110(19): 3003-3010. PMID: 15505084
11. **Mahesh M.** Digital Mammography: An Overview. RadioGraphics. 2004; 24(6): 1747-1760. PMID: 15537982
12. Bloomquist AK, Yaffe MJ, Pisano ED, Hendrick E, Mawdsley GE, Bright S, Shen SZ, **Mahesh M**, Nickoloff EL, Fleischman RC, Williams MB, Maidment AD, Beideck DJ, Och J, Seibert JA. Quality Control for Digital Mammography in the ACRIN DMIST Trial: Part I. Medical Physics. 2006; 33(3): 719-736. PMID: 16878575
13. Yaffe MJ, Bloomquist AK, Mawdsley GE, Pisano ED, Hendrick E, Fajardo LL, Boone JM, Kanal K, **Mahesh M**, Fleischman RC, Williams MB, Beideck DJ, Maidment AD. Quality Control for Digital Mammography: Part II Recommendations from the ACRIN DMIST Trial. Medical Physics. 2006; 33(3): 737-752. PMID: 16878576
14. Johnson PT, Horton KM, **Mahesh M,** Fishman EK. MDCT for Suspected Appendicitis: Multi-detector Computed Tomography for Suspected Appendicitis: Multi-Institutional Survey of 16-MDCT Data Acquisition Protocols and Review of Pertinent Literature. J Comput Assist Tomogr. 2006; 30(5): 758-764. PMID: 16954924
15. Balter S, Detorie NA and **Mahesh M**. Federal regulations (effective June 2006) require dose monitors on all new fluoroscopes: how will this help clinicians keep track of patient dose? 2007; 4(2): 130-132. PMID: 17412246
16. **Mahesh M,** Detorie N and Ford EC. Technical aspects of respiration-correlated 4-D CT for radiation therapy. J Am Coll Radiol. 2007; 4(3): 192-194. PMID: 17412263
17. **Mahesh M,** Detorie N, Hendee WR and Heintz PH. An update on the new curriculum for educating radiologists about physics. J Am Coll Radiol. 2007; 4(4): 254-255. PMID: 17412279
18. Detorie N, **Mahesh M,** and Schueler BA. Reducing occupational exposure from fluoroscopy. J Am Coll Radiol. 2007; 4(5): 335-337. PMID: 17467618
19. **Mahesh M,** Detorie N and Yu C. Intensity-modulated arc therapy: new developments on an old idea. J Am Coll Radiol. 2007; 4(6): 419-421. PMID: 17544145
20. Bomma C, Dalal D, Tandri H, Prakasa K, Nasir K, Roguin A, Piccini, J, Dong J, **Mahadevappa M**, Tichnell C, James C, Lima JAC, Fishman E, Calkins H, Bluemke, DA. Evolving role of multidetector computed tomography in evaluation of arrhymogenic right ventricular dysplasia/cardiomyopathy. Am J Cardiol. 2007; Jul; 100(1): 99-105. PMID: 17599449
21. **Mahesh M** and Cody DD. Physics of Cardiac Imaging with Multiple-row Detector CT. Radiographics. 2007; Nov-Dec; 27(5): 1495-1509. **Review.** PMID: 17848705.
22. Cody DD and **Mahesh M.** Technological Advances in Multidetector CT with a focus on Cardiac Imaging. RadioGraphics. 2007; 27(6): 1829-1837. **Review.** PMID: 18025521
23. **Mahesh M,** Detorie N and Strauss KJ. ALARA in pediatric fluoroscopy. J Am Coll Radiol. 2007; 4(12): 931-933. PMID: 18047992
24. **Mahesh M.** How to prepare for the Joint Commission's Sentinel Event Policy pertaining to Prolonged Fluoroscopy. J Am Coll Radiol. 2008; 5(4): 601-603. PMID: 18359451

25. Mettler FA, Huda W, Yoshizumi TT, **Mahesh M.** Effective Doses in Radiology and Nuclear Medicine: a Catalog. Radiology. 2008; 248 (1): 254-263. [Top 10 most cited articles in Radiology as of November 2017] PMID: 18566177
26. Mettler FA, Thomodsen BR, Bhargavan M, Gilley DB, Gray JE, Lipoti JA, **Mahesh M**, McCrohan J, Yoshizumi TT. Nuclear Medicine Exposure in the United States – 2005-2007: Preliminary Results. Seminars in Nuclear Medicine. 2008; 38(5): 384-391. PMID: 18662559
27. Segars WP, **Mahesh M**, Beck TJ, Frey EC, Tsui BM. Realistic CT simulation using the 4D XCAT phantom. Medical Physics. 2008; 35 (8): 3800-3808. PMID: 18777939
28. Mettler FA, Thomodsen BR, Bhargavan M, Gilley DB, Gray JE, Lipoti JA, Yoshizumi TT, **Mahesh M**. Medical Radiation Exposure in the US 2006: Preliminary Results. Health Phys. 2008; 95(5): 502-507. PMID: 18849682
29. Javadi M, **Mahesh M**, McBride G, Voicu C, Epley W, Merrill J, Bengel FM. Lowering Radiation Dose for Integrated Assessment of Coronary Morphology and Physiology: First Experience With Step-and-Shoot CT Angiography in A Rubidium 82 PET-CT Protocol. J Nucl Cardiol. 2008; 15(6): 783-790. PMID: 18984453
30. **Mahesh M,** Hevezi JM and Hendee WR. Reflections on the relationship between the AAPM and the ACR. J Am Coll Radiol. 2008; 5(12): 1212-1213. PMID: 19027687
31. Bertoni AG, Whitt-Glover MC, Chung H, Le KY, Barr RG, **Mahesh M**, Jenny NS, Burke GL, Jacobs DR. The association between physical activity and subclinical atherosclerosis: The Multi- Ethnic Study of Atherosclerosis (MESA). Am J of Epidemiology. 2009; 169(4): 444-454. PMID: 19075250
32. **Mahesh M,** Hevezi JM. Multislice scanners and radiation dose. J Am Coll Radiol. 2009; 6(2): 127-128. PMID: 19179243
33. Hayes A, Alspaugh J, Bartelt D, Campion M., Eng J, Gayler B, Henkel S, Lingarz A, **Mahesh, M**. Rostkowski M, Smith C, Haynos J, Radiation Safety for the Speech-Language Pathologist. Dysphagia. 2009; 24(3): 274-279. PMID: 19198942
34. **Mahesh M**. Hevezi JM. Slice Wars vs Dose Wars in Multiple-row Detector CT. J Am Coll Radiol. 2009; 6(3): 201-202. PMID: 19248997
35. Xu J, **Mahesh M,** Tsui BM. Is Iterative Reconstruction ready for MDCT. J Am Coll Radiol. 2009; 6(4): 274-276. PMID: 19327661
36. Mettler FA, Bhargavan M, Faulkner K, Gilley DB, Gray JE, Ibbott GS, Lipoti JA, **Mahesh M**, McCrohan JL, Stabin, MG, Thomadsen BR, Yoshizumi TT. Radiologic and Nuclear Medicine Studies in the United States and Worldwide: Frequency, Radiation Dose, and Comparison with Other Radiation Sources-1950-2007. Radiology. 2009; 253(2): 520-532. PMID: 19789227
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39. Smith-Bindman R, Lipson J, Marcus R, Kim KP, **Mahesh M**, Gould R, Berrington de Gonzalez A, Miglioretti DL. Radiation dose associated with common computed tomography examinations and the associated lifetime-attributable risk of cancer. Arch Intern Med. 2009; 169 (22): 2078-2086. [Scientific Paper of the Year, Aunt Minnie, 2010] PMID: 20008690
40. **Mahesh M.** Medical radiation exposure with focus on CT. Rev Environ Health. 2010; 25(1): 69-74. PMID: 20429162
41. **Mahesh M.** Airport full-body scanners. J Am Coll Radiol. 2010; 7(5): 379-381. PMID: 20439084

42. Edelstein WA, **Mahesh M**, Carrino JA. MRI: time is dose--and money and versatility. J Am Coll Radiol. 2010; 7(8): 650-652. PMID: 20678736
43. Brunetti M, **Mahesh M**, Nabaweesi R, Locke P, Ziegfeld S, Brown R. Diagnostic Radiation exposure in pediatric trauma patients. J Trauma. 2011; 70(2): E24-8. PMID: 20805769
44. **Mahesh M.** Features to consider when selecting a new CT scanner. J Am Coll Radiol. 2010; 7(10): 820-822. PMID: 20889116
45. Nickoloff E, **Mahesh M**, Heintz P, Kanal K, Rzeszotarski MS, Schueler B. Physics Instruction for Radiology Residents in the Era of the New ABR Examination Process. J Am Coll Radiol. 2010; 7(11): 900-904. PMID: 21040875
46. National Lung Screening Trial Research Team, Aberle DR, Berg CD, et al., The National Lung Screening Trial: Overview and study design. Radiology. 2011; 258(1): 243-253. PMID: 21045183
47. Singh S, Kalra MK, Thrall JH, **Mahesh M.** CT Radiation dose reduction by modifying primary factors. J Am Coll Radiol. 2011; 8(5): 369-372. PMID: 21531317
48. Singh S, Kalra MK, Thrall JH, **Mahesh M.** Automatic Exposure Control in CT: Applications and Limitations. J Am Coll Radiol. 2011; 8(6): 466-449. PMID: 21636062
49. National Lung Screening Trial Research Team, Aberle DR, Berg CD, et al., Reduced lung-cancer mortality with low-dose computed tomographic screening. N Engl J Med. 2010; 365(5): 395-409. PMID: 21714641
50. Halliburton SS, Abbara S, Chen MY, Gentry R, **Mahesh M**, Raff GL, Shaw LJ, Hausleiter J. SCCT guidelines on radiation dose and dose-optimization strategies in cardiovascular CT. J Cardiovasc Comput Tomogr. 2011; 5(4): 198-224. PMID: 21723512
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52. Singh S, Kalra MK, Thrall JH, **Mahesh M.** Pointers for Optimizing Radiation Dose in Head CT Protocols. J Am Coll Radiol. 2011; 8(8): 591-593. PMID: 21807356
53. **Mahesh M.** Advances in CT technology and application to pediatric imaging. Pediatric Radiology. 2011; 41 Suppl 2: 493-497. PMID: 21847728
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56. Radvany MG, Ehtiati T, Huang J, **Mahesh M**, Gailloud P. Aortic arch injection with C-arm cone beam CT for radiosurgery treatment planning of cerebral arteriovenous malformations: technical note. J Neurointerv Surg. 2012; Sept; 4(5): e28. PMID: 22021404.
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58. Singh S, Kalra MK, Thrall JH, **Mahesh M.** Pointers for optimizing radiation dose in pediatric CT protocols. J Am Coll Radiol. 2012; 9(1): 77-9. [Most read articles as of January-August 2012] PMID: 22221641
59. Hevezi J, **Mahesh M**. Optimizing CT Dose and Image Quality for Radiotherapy Patients. J Am Coll Radiol. 2012; 9(2): 152. PMID: 22305705

60. Halliburton S, Arbab-Zadeh A, Dey D, Einstein AJ, Gantry R, George RT, Gerber T, **Mahesh M,** Weigold WG. State-of-the-art in CT hardware and scan modes for cardiovascular CT. J Cardiovasc Comput Tomgr. 2012; 6(3): 154-163. PMID: 22551595Cao M, Das IJ, **Mahesh M**. Technical factors for consideration in selecting 4D CT scanner. J Am Coll Radiol. 2012; 9(6): 444-446. PMID: 22632675
61. Xu J, Reh DD, Carey JP, **Mahesh M,** Siewerdsen JH. Technical assessment of a cone-beam CT scanner for otolaryngology imaging: image quality, dose and technique protocols. Medical Physics. 2012; 39(8): 4932-42. PMID: 22894419
62. Durand DJ, **Mahesh M.** Understanding CT Dose Display. J Am Coll Radiol. 2012; 9(9): 669-71. PMID: 22954552
63. **Mahesh M,** Fishman EK. CT dose reduction strategy: To modulate dose or not in certain patients. J Am Coll Radiol. 2012; 9(12): 931-932. PMID: 23206653
64. **Mahesh M,** Durand DJ**.** The Choosing Wisely Campaign and its potential impact on diagnostic radiation burden. J Am Coll Radiol. 2013; 10(1): 65-66. PMID: 23211613
65. Raman SP, Johnson PT, Deshmukh S, **Mahesh M,** Grant KL, Fishman EK**.** CT Dose Reduction Applications: Available tools on the latest generation of CT scanners. J Am Coll Radiol. 2013; 10(1): 37-41. ***[Top 25 hottest articles during Apr-Jun 2013]*** PMID: 23290672
66. Korchin S, **Mahesh M**. Radiographic Facility Checklist: The Basics. J Am Coll Radiol. 2013; 10(4): 303-304. PMID: 23465889
67. **Mahesh M.** Challenges in Evaluating Flat-Panel Detector Fluoroscopy Systems. J Am Coll Radiol. 2013; 10(3): 223-224. PMID: 23571064
68. National Lung Screening Trial Research Team, Aberle DR, DeMello S, Berg CD, et. al. Results of the two-incidence screening in the National Lung Screening Trial. N Engl J Med. 2013; 369 (10): 920-31.
69. **Mahesh M,** Johnson PT and Fishman EK. Dual Energy CT: Is it ready for Prime Time? J Am Coll Radiol. 2013; 10(5): 383-385. PMID: 23642881
70. **Mahesh M,** Haines GR. JACR Radiation Dose Optimization in CT: An online resource center for radiologists. J Am Coll Radiol. 2013; 10(6): 477. PMID: 23735275
71. **Mahesh M.** NCRP Report Number 168: Its significance to fluoroscopically guided interventional procedures. J Am Coll Radiol. 2013; 10(7): 551-552. PMID: 23827007
72. **Mahesh M.** Variability in CT Protocols. J Am Coll Radiol. 2013 Oct 10(10): 805-806. PMID: 23988585
73. Pindrik J, Huisman T, **Mahesh M**, Tekes A, Ahn ES. Analysis of Limited Sequence Head CT for Children with Shunted Hydrocephalus: Potential to Reduce Diagnostic Radiation Exposure, J Neurosurg Pediatr. 2013; Nov; 12(5): 491-500. PMID: 24004119
74. Sierzenski PR, Linton OW, Stephen Amis E Jr, Mark Courtney D, Larson PA, **Mahesh M**, Novelline RA, Frush DP, Mettler FA, Timins JK, Tenforde TS, Boice JD Jr, Brink JA, Bushberg JT, Schauer DA. Application of Justification and Optimization in Medical Imaging: Examples of Clinical Guidance for Computed Tomography Use in Emergency Medicine, Annals of Emergency Medicine. 2014; Jan; 63(1):25-32. doi: 10.1016/j.annemergmed.2013.08.027. PMID: 24134958
75. Sierzenski PR, Linton OW, Stephen Amis E Jr, Mark Courtney D, Larson PA, **Mahesh M**, Novelline RA, Frush DP, Mettler FA, Timins JK, Tenforde TS, Boice JD Jr, Brink JA, Bushberg JT, Schauer DA. Application of Justification and Optimization in Medical Imaging: Examples of Clinical Guidance for Computed Tomography Use in Emergency Medicine, J Am Coll Radiol. 2014; Jan; 11(1): 36-44. doi: 10.1016/j.jacr.2013.09.023. PMID: 24135540
76. Raman SP, **Mahesh M**, Blasko RV and Fishman EK. CT scan parameters and radiation dose: Practical Advice for Radiologists. J Am Coll Radiol. 2013; 10(11): 840-846. PMID: 24183553

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78. Pearl MS, Torok C, Wang J, Wyse E, **Mahesh M** and Gailloud P. Practical techniques for reducing radiation exposure during cerebral angiography procedures. J Neurointerv Surg. 2015; 7(2): 141-145. PMID: 24489125
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80. **Mahesh M,** Zimmerman SL and Fishman EK. Radiation Dose Shift in Relative Proportion: The Case of Coronary Artery Calcium Studies. J Am Coll Radiol. 2014; 11(6): 634-635. PMID: 24726446
81. Fazel R, Gerber TC, Balter S, Brenner DJ, Carr JJ, Cerqueira MD, Chen J, Einstein AJ, Krumholz HM, **Mahesh M**, McCollough CH, Min JK, Morin RL, Nallamothu BK, Nasir K, Redberg RF, Shaw LJ; on behalf of the American Heart Association Council on Quality of Care and Outcomes Research and Council on Cardiovascular Radiology and Intervention. Approaches to enhancing radiation safety in cardiovascular imaging: a scientific statement from the American Heart Association. Circulation. 2014 Nov 4; 130(19): 1730-1748. PMID: 25366837
82. Mayo-Smith WW, Hara AK, **Mahesh M,** Sahani DV and Pavlicek W. How I Do It: Managing Radiation Dose in CT. Radiology. 2014; 273 (3): 657-672. PMID: 25420167
83. Liapi E, **Mahesh M** and Sahani DV. Is CT Perfusion Ready for Liver Cancer Treatment Evaluation. J Am Coll Radiol. 2015; 12 (1): 111-113. PMID: 25557575
84. Long CM, Long SS, Johnson PT, **Mahesh M**, Fishman EK and Zimmerman SL. Utility of Low-dose High-pitch Scanning for Pediatric Cardiac Computed Tomographic Imaging. J Thorac Imaging. 2015 Jul; 30(4): W36-40. PMID: 25629579
85. Johnson PT, **Mahesh M** and Fishman EK. Image Wisely and Choosing Wisely: Importance of adult body CT protocol design for patient safety, exam quality, and diagnostic efficacy. J Am Coll Radiol. 2015; 12(11): 1185-1190. PMID: 25892227
86. Rao AD, Sugar EA, Barrett N, **Mahesh M** and Arceci RJ. The Utility of Computed Tomography in the Management of Fever and Neutropenia in Pediatric Oncology. Pediatric Blood & Cancer. 2015; 62(10): 1761–1767. PMID: 25929242
87. Chang KJ, Heisler MA, **Mahesh M**, Baird GL and Mayo-Smith WW. CT Colonography at low tube potential: Using Iterative Reconstruction to Decrease Noise. Clin Radiol. 2015; 70(9): 981-988. PMID: 26070401
88. Radvany MG, **Mahesh M.** Last Series Hold: A feature on fluoroscopy systems with the potential to reduce patient and operator dose. J Am Coll Radiol. 2015; 12 (8): 860-861. PMID: 26250978
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90. Salazar-Austin N, Ordonez AA, Hsu AJ, Benson JE, **Mahesh M,** Menachery E, Razeq JH, Salfinger M, Starke JR, Milstone AM, Parrish N, Nuermberger EL, Jain SK. Extensively drug-resistant tuberculosis in a young child after travel to India. Lancet Infect Dis. 2015; 15(12): 1485-1491. PMID: 26607130
91. **Mahesh M.** What Is the CT Dose Check Standard, and Why Do CT Scanners Need to Be in Compliance? J Am Coll Radiol. 2016; 13(1): 64-66 PMID: 26653798
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96. Yang H, Schaffer K, Liu L, **Mahesh M**, Yousem DM. Benchmarking Lumbar Puncture Fluoroscopy Time during Fellowship Training. AJNR Am J Neuroradiol. 2017 Mar; 38(3): 656-658. PMID: 27908868
97. **Mahesh M**, Barker PB. The MRI Helium Crisis: Past and Future. J Am Coll Radiol. 2016 Dec; 13(12 Pt A):1536-1537. PMID: 27916113.
98. Rubin GD, Krishnaraj A, **Mahesh M**, Rajendran RR, Fishman EK. Enhancing Public Access to Relevant and Valued Medical Information: Fresh Directions for RadiologyInfo.org. J Am Coll Radiol. 2017 May; 14(5): 697-702. PMID: 28143750
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Invited Review and Editorial Articles

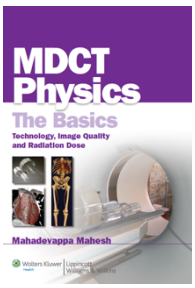
Editorials

1. **Mahesh M.** Reducing Radiation Dose in CT Angiography with Wide-detector and single-heart beat acquisition. Journal of Cardiovascular Computed Tomography. July 2009; 3(4): 262-263. PMID: 19577216.
2. **Mahesh M.** Use of full body scanners at airports. British Medical Journal. 2010; 340: c993. PMID: 20179128.
3. **Mahesh M**, Radiation. JACR 10th year anniversary musings, J Am Coll Radiol. 2013; 10(8): 557-558. PMID: 23916096.
4. **Mahesh M**, Invited Commentary on 'Application of emerging techniques for abdominal CT dose optimization: How to achieve the dose that fits the patient and diagnostic task'. Radiographics. 2014 Jan-Feb: 34(1): 17-18. PMID: 24428278.
5. **Mahesh M.** New Conversion Factors for Estimating Effective Doses during Cardiac CTA. JACC Cardiovasc Imaging. 2018 Jan; 11(1): 75-77. PMID:28823735.
6. **Mahesh M.** Hybrid Model for the Medical Physics Imaging Residency Training. J Am Coll Radiol. 2019; May 2019; 16(5): 762-763. https://doi.org/10.1016/j.jacr.2018.09.039 PMD: 30420239.
7. **Mahesh M.** Medical Physics 3.0. J Am Coll Radiol. 2021 Dec;18(12):1596-1597. doi: 10.1016/j.jacr.2021.10.002. Epub 2021 Nov 8. PMID: 34762831
8. **Mahesh M.** Benchmarking CT Radiation Doses Based on Clinical Indications: Is Subjective Image Quality Enough? Radiology. 2021 Nov 9:212624. doi: 10.1148/radiol.2021212624. Online ahead of print. PMID: 34751622

BOOKS and TEXTBOOKS

Textbooks

1. **Mahesh M.** MDCT Physics: The Basics – Technology, Image Quality and Radiation Dose. Lippincott Williams & Wilkins, Philadelphia, PA. 2009.



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9. Calkins H, Rosenthal LS, **Mahesh M**. Radiation Exposure during Radiofrequency Catheter Ablation Procedures. In: Huang SKS and Wilber DJ editors. Radiofrequency Catheter Ablation of Cardiac Arrhythmia: Basic Concepts and Clinical Applications, 2nd Edition. New York. Futura Publishing Company, Inc. 2000; 793-803
10. **Mahesh M**, Gayler BW, Beck TJ. Radiation in Video-Recorded Fluoroscopy. In: Jones B, ed. Normal and Abnormal Swallowing: Imaging in Diagnosis and Therapy, 2nd Edition. New York: Springer. 2003; 1-9.
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18. **Mahesh M**. Fundamentals of CT in PET-CT. In: Richard Wahl. Principles and Practice of PET and PET/CT. Lippincott Williams and Wilkins, 2nd Edition. 2009; 58-68.

Other Publications: Suggested Additional Subcategory Titles:

Proceedings Reports or Scientific Reports

19. NCRP (2009). National Council on Radiation Protection and Measurements, Ionizing Radiation Exposure of the Population of the United States, **NCRP Report No. 160.** (NCRP, Bethesda, Maryland). **Mahesh M.** Member of the Scientific Committee 6-2 that prepared the NCRP report no. 160.
20. 2008-2009 **Annual Report of The President's Cancer Panel. Reducing Environmental Cancer Risk – What We Can Do Now.** U.S. Department of Health and Human Service – National Institutes of Health – National Cancer Institute, Bethesda, MD. April 2010. **Mahesh M.** was invited to testify to the panel on medical

radiation exposure and the testimonials are part of chapter 3 of the report titled 'Exposure to Hazards from Medical Sources'.

21. Fazel R, Gerber TC, Balter S, Brenner DJ, Carr JJ, Cerqueira MD, Chen J, Einstein AJ, Krumholz HM, **Mahesh M**, McCollough CH, Min JK, Morin RL, Nallamothu BK, Nasir K, Redberg RF, Shaw LJ; on behalf of the American Heart Association Council on Quality of Care and Outcomes Research and Council on Cardiovascular Radiology and Intervention. Approaches to enhancing radiation safety in cardiovascular imaging: a scientific statement from the American Heart Association. Circulation. 2014.
22. NCRP (2019). National Council on Radiation Protection and Measurements, Medical Radiation Exposure of Patients in the United States, **NCRP Report No. 184.** (NCRP, Bethesda, Maryland). **Mahesh M.** Co-Chair of the Scientific Committee 4-9 that prepared the NCRP report no. 184.

Methods and Techniques, "How I Do It" articles

23. Mayo-Smith WW, Hara AK, **Mahesh M,** Sahani DV and Pavlicek W. How I Do It: Managing Radiation Dose in CT. Radiology. 2014; 273 (3): 657-672. PMID: 25420167 (Downloaded >55,000 times as of 2019)
24. Frequently Asked Questions for the AAPM, ACR and HPS position statement - **"Proper use of radiation dose metric tracking for patients undergoing medical imaging exams" Mahesh M** is one of the authors who prepared the FAQ and participated in the writing of the position statement. https://www.aapm.org/org/policies/documents/EffectiveDose_FAQ.pdf Accessed November 12, 2021.

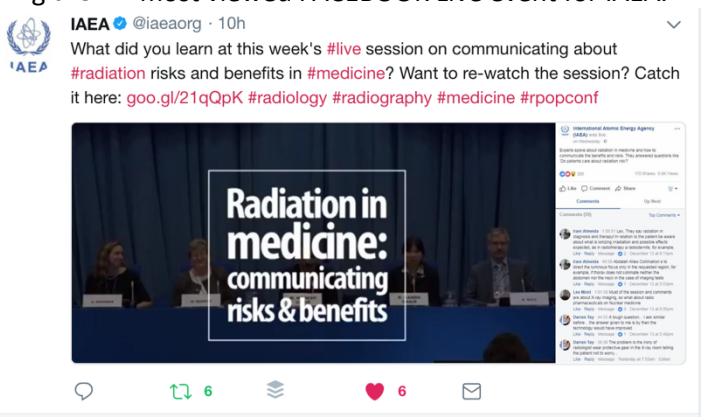
History Interview

1. Mahesh M. AAPM History Committee interview conducted at Denver, CO in July 2017. https://www.aapm.org/org/history/InterviewVideo.asp?i=219
2. Mahesh M. A Legacy Retrospective. Interview of Dr Bob Gayler, MD. https://www.hopkinsmedicine.org/radiology/our-team/legacy.html. Accessed on August 16, 2021. http://ow.ly/IaEU50FS6ww
3. Mahesh M. A Legacy Retrospective. Interview of Dr Stanley Siegelmann, MD. https://www.hopkinsmedicine.org/radiology/our-team/legacy.html. Accessed on August 16, 2021. http://ow.ly/y6a150FS6Dk

Other Media (Videos, Websites, Blogs, Social-Media, etc.)

FaceBook Live:

1. Dr Mahesh – session chair at the International Atomic Energy Agency (IAEA) in Vienna, Austria on **"Radiation in Medicine: Communicating Risks & Benefits"** that included patient advocate and communication specialist. The session was streamed live on FACEBOOK LIVE on Dec 13, 2017 and had more than 25000 views becoming the 2nd most viewed FACEBOOK Live event for IAEA.



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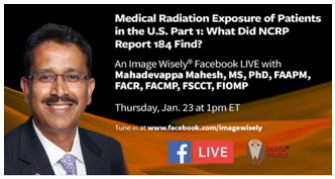
2. Facebook Live. Conversation with Dr Elliot Fishman (host) on **"CT and the Pregnant Patient".** Live recording on May 17th, 2017. https://www.facebook.com/ctisus/videos/10154370338565780/ or at http://ow.ly/MTNv30hBvvg
3. Facebook Live. **"Radiation contamination of a crematorium".** Live recording on March 12th, 2018. https://www.facebook.com/ImageWisely/videos/2244989552435883/
4. Facebook Live. **"Patient Shielding".** Live recording on January 14th, 2020 garnered more than 62,000 views since then becoming the highest viewed Facebook Live event for CTISUS.COM https://www.facebook.com/ctisus/videos/1371739943006203/
5. Facebook Live. **"Dual Energy CT – Physics and Technology**". Live recording on January 16th, 2020. https://www.facebook.com/ctisus/videos/2270806056552665/
6. Facebook Live. **"Medical Radiation Exposure of Patients in the US, Part 1: What did NCRP report 184 find?** Live recording on January 23rd, 2020. "https://www.facebook.com/ImageWisely/videos/480262209552971/



7. Facebook Live. **"Disinfection in CT during COVID-19".** Live recording on June 19th, 2020. https://www.facebook.com/ctisus/videos/192141732125388/
8. Facebook Live. "Decisions for medical imaging should be clinical, not based on past radiation dose". Live recording on Nov 9th, 2021. https://fb.watch/9edkDs7tUS/

Non-peer reviewed articles including book reviews

Book Reviews:

1. **Mahesh M.** Mathematical Techniques in Nuclear Medicine, by S.T. Chandler and W.H. Thomson. Medical Physics. 1997; 24(7): 1184-1185.
2. **Mahesh M.** Nuclear Medicine Annual 1995, by Leonard M. Freeman. Medical Physics. 1999; 23(8): 1469.
3. **Mahesh M** and Moore S.: Fuch's Radiographic Exposure, Processing and Quality Control, Seventh Edition by Quinn B. Carroll. Radiology. 2004; 233(1): 40.
4. **Mahesh M.** Review of Paul Suetens's Fundamentals of Medical Imaging, 2nd Edition, Medical Physics. 2011; 8(3): 1735, 2011.
5. **Mahesh M.** Review of NCRP Report 168 – Radiation dose management for fluoroscopically guided interventional medical procedures. Medical Physics. 2013; 39(9): 5780-90.
6. **Mahesh M.** Review of The Essential Physics of Medical Imaging, Third Edition. Medical Physics. 2013; 40(7): 077301-1.

Proceedings and other articles:

7. Yoganandan N, Sances A, Pintar FA, Harris G, **Mahesh M,** Larson SJ. Three-Dimensional Computerized Tomography Analysis of Steering Wheel Facial Trauma. *Proc. 12th International Technical Conference on Experimental Safety Vehicles.* Vol 1, U.S. Dept of Transportation, National Highway Traffic Safety Administration, Washington, D.C.1989; 752-763.
8. **Mahesh M.** An Update on the AAPM Partners in Physics Program. AAPM Newsletter. Nov/Dec 2002.
9. Chakrabarti K, Kaczmarek RV, Thomas JA, **Mahesh M,** Fleischman RC. Effect of detector noise on phantom image quality in a number of full-field digital mammography systems. In: Peitgen HO, ed. *Proc. 6th International Workshop on Digital Mammography*. Bremen, Germany. Springer.2002; 95-99.
10. Segars WP, **Mahesh M**, Beck TJ, Frey EC, Tsui BMW. Validation of the 4D NCAT Simulation Tools for Use in High-Resolution X-ray CT Research. *Conference Record of SPIE Medical Imaging Conference*. San Diego, CA, 2004.
11. **Mahesh M:** Cardiac Imaging – Technical Advances in MDCT Compared with Conventional X-ray Angiography. Business Briefing: US Cardiology 2006; 115-118, 2005, Touch Briefings (www.touchcardiology.com), London, UK.

12. **Mahesh M.** Primer on Medical Physics Career. Interactions, 2007.
13. Huisman TAGM, **Mahesh M**. Medical Imaging in Children in the Age of Technology. Imaging and Diagnostics Magazine. 2012; (3): 16-19.
14. **Mahesh M.** For Medical Physicists, The Times They Are A-Changin'. Radiology Business Journal. October-November 2017, pp 34-35, 2017. Radiology Business Journal (www.radiologybusiness.journal), USA.

Radiology Business Journal: Published Interviews and Articles

1. 7 Reasons why radiation exposure, patient doses are decreasing in Cardiology. October 2017. http://www.radiologybusiness.com/topics/imaging-informatics/seven-reasons-why-radiation-exposure-and-patient-dose-cardiology-are-decreasing
2. For Medical Physicists, the times they are a-changin'. October 2017. http://www.radiologybusiness.com/topics/policy/medical-physicists-times-they-are-changin'
3. Striking a balance: Radiation not the only risk to consider when imaging pediatric patients. August 2017. http://www.radiologybusiness.com/topics/practice-management/quality/striking-balance-radiation-not-only-risk-consider-when-imaging-pediatric-patients
4. Reducing radiation exposure in medical imaging: how radiology is making a difference, one patient at a time. Jun 2017. http://www.radiologybusiness.com/topics/practice-management/quality/striking-balance-radiation-not-only-risk-consider-when-imaging-pediatric-patients

Web Modules

1. **Mahesh M.** Samei E, Bisset GS. "Radiation Dose in CT". Web module at RSNA website - http://physics.rsna.org/section/default.asp?id=PHYSICS_01
2. **Mahesh M.** Fluoroscopy Refresher Course. Web module at 'myLearning@JohnsHopkins' - http://webct.jhu.edu:80/SCRIPT/hse_fluoro_ongoing/scripts/serve_home (designated refresher course for all physicians qualifying to perform fluoroscopy at Johns Hopkins Medical Institutions)
3. **Mahesh M.** Principles of Multi-Slice Cardiac CT Image Acquisition. Cardiac Computed Tomography Self-Assessment Program 2. American College of Cardiology Foundation.
4. **Mahesh M.** ACC module on Radiation Safety during Cardiac Imaging Procedures.

Podcasts

1. **Mahesh M**. TSA scanners – Interview with host of Safe and Sound (Recorded 12/17/2010).
2. **Mahesh M.** Airport Scanner Safety (Recorded 2012).
3. **Mahesh M**. CT Dose https://www.radiologyinfo.org/en/info/safety-xray
4. **Mahesh M.** The Benefits and Pitfalls of Twitter in Academia with Mahadevappa Mahesh, MS, PhD (Faculty Factory Snippet No. 43) https://www.podbean.com/eu/pb-ts95p-f0f507#.YC_3P9Ws9a0.twitter aired on Nov 6th, 2020 and is part of the following ebook: Callanan, C. J., Bruder M., Skarupski K. A. (2021*). Faculty Factory: Snippets for Success. https://facultyfactory.org/ebook.*

Videocasts

1. Interview with editor of Imaging Technology News (itn) TV on "Radiation Dose Monitoring in Medical Imaging" Posted December 14, 2016. https://www.itnonline.com/videos/video-radiation-dose-monitoring-medical-imaging

CT Physics Lectures posted on CTISUS.com website

1. Radiation Dose in CT – Part 1. Posted January 1st, 2017. http://www.ctisus.com/media/physics/2017/01/02/radiation-dose-in-ct
2. Radiation Dose in CT – Part 2. Posted February 1st, 2017. http://www.ctisus.com/media/physics/2017/02/06/radiation-dose-in-ct

3. Tube Current & Tube Current Modulation. Posted March 1st, 2017. http://www.ctisus.com/media/physics/2017/03/06/tube-current-and-tube-current.
4. Tube Voltage and Pitch. Posted April 1st, 2017. http://www.ctisus.com/media/physics/2017/04/03/ct-tube-voltage
5. CT Image Quality. Posted May 1st, 2017. http://ctisus.com/resources/library/media/2017mahesh5.mp4
6. Cardiac CT Physics. Posted June 1st, 2017. http://www.ctisus.com/redesign/media/2017/06/05/cardiac-ct-physics
7. Pediatric CT Physics: How to Minimize Radiation Exposure in Children. Posted July 1st, 2017. http://ctisus.com/media/physics/2017/07/03/pediatric-ct-physics-how-to
8. CT Equipment. Posted Aug 1st, 2017. http://ctisus.com/resources/library/media/mahesh8v2.mp4
9. Physics of Dual Energy CT – Part 1. Posted Sept 1st, 2017. http://www.ctisus.com/resources/library/media/2017mahesh9.mp4
10. Why is DECT not used widely. Posted Oct 1st, 2017. http://ctisus.com/resources/library/media/2017mahesh10.mp4
11. Separating Radiation Facts from Myths. Posted Nov 1st, 2017. http://ctisus.com/resources/library/media/2017mahesh11.mp4
12. CT Perfusion. Posted Dec 1st, 2018. http://ctisus.com/resources/library/media/2017mahesh12.mp4
13. Understanding CT Dose Displays. Posted Jan 1st, 2018. http://ctisus.com/resources/library/media/2018mahesh1.mp4
14. CT Dose Check. Posted Mar 1st, 2018. http://www.ctisus.com/resources/library/media/Mahesh32018v2.mp4
15. Diagnostic Reference Levels Part 1. Posted May 1st, 2018. http://www.ctisus.com/resources/library/media/Mahesh52018.mp4
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17. CT Artifacts – Physics-based Artifacts. Posted September 3rd, 2018. https://ctisus.com/resources/library/media/2018Mahesh9.mp4
18. CT Artifacts Patient-based Artifacts. Posted November 5th, 2018 https://ctisus.com/resources/library/media/mahesh112018.mp4

YouTube Presentations

1. **Mahesh M.** CT Dose. http://www.youtube.com/watch?v=Fwrr8eIaW2Q&list=UUATNzbTbfeoMhNonZGZmrhA&index=101
2. **Mahesh M.** CT Dose Modulation. http://www.youtube.com/watch?v=kruvyCFp8Co&list=UUATNzbTbfeoMhNonZGZmrhA&index=102
3. **Mahesh M.** CT Dose Display. http://www.youtube.com/watch?v=cI_0XXYJwb4&list=UUATNzbTbfeoMhNonZGZmrhA&index=103
4. **Mahesh M.** Radiation Protection. http://www.youtube.com/watch?v=OcOZAGdwLSQ&list=UUATNzbTbfeoMhNonZGZmrhA&index=104
5. **Mahesh M.** CT Dose and Risk. http://www.youtube.com/watch?v=6uZZqJxkZZo&list=UUATNzbTbfeoMhNonZGZmrhA&index=105
6. **Mahesh M.** CT Scan Parameters. http://www.youtube.com/watch?v=T7L-9-fh49s&list=UUATNzbTbfeoMhNonZGZmrhA&index=106
7. **Mahesh M.** Radiation Risks. http://www.youtube.com/watch?v=m-W_9g9Nnuk&list=UUATNzbTbfeoMhNonZGZmrhA&index=107

8. **Mahesh M.** Airport Scanners. http://www.youtube.com/watch?v=0zrrWhYeC9A
9. **Mahesh M.** Understanding Dose Display in CT. UCSF Radiation Safety in Computed Tomography – A virtual symposium. Posted May 2013. https://www.youtube.com/watch?v=9TbcPF4YzBo
10. **Mahesh M.** Why is dose optimization important? Interview to the Journal of American College of Radiology. Posted April 2016. https://www.youtube.com/watch?v=9S9AZVXQXys
11. **Mahesh M**. Latin Safe Interview with Dr Hilton Muniz Filho, President of the Latin Safe. Posted November 8, 2018. https://www.youtube.com/watch?v=7fL4K3Y6Cqw
12. **Mahesh M.** Role of Medical Physicists in the Clinic during COVID-19 Pandemic. AOCMP meeting, Bangkok, Thailand. December 2020. https://www.yDecoutube.com/watch?v=Vzp6g_vSaAw
13. **Mahesh M.** Understanding Imaging – A Patient Guide. The Power of Patient Project, Philadelphia, US, 2021. https://www.youtube.com/watch?v=NBX3IOy3M24

Vodcasts

Presentations recorded at various national and international meetings available for continues education credits by respective organizations (Partial Listing)

1. Medical Physics 2.0 – Panel Discussion. 2014 AAPM Annual Meeting Session: Medical Physics 1.0 to 2.0: Introduction and Panel Discussion. Austin, Texas. https://www.aapm.org/education/VL/vl.asp?id=3776
2. Radiation dose optimization strategies in computed tomography
   2014 AAPM annual meeting session: Radiation Dose Reducing Strategies in CT, Fluoroscopy and Radiography. Austin, Texas. https://www.aapm.org/education/vl/vl.asp?id=3670
3. Fluoroscopy Training and Compliance - Experience of a Large Academic Institution. 2012 AAPM annual meeting, Charlotte, North Carolina. https://vimeo.com/75582844
4. *What Imaging Aspects should a Radiotherapy Physicist know today?*
   2014 AAPM Annual Meeting Session: Joint AAPM/SEFM/AMPR Educational Workshop on "Education of Radiotherapy Physicists". Austin, Texas. https://www.aapm.org/education/VL/vl.asp?id=3796
5. *Magnitude of Radiation Exposure to US Population (NCRP Report #160) with Focus on CT Dose.* 2009 AAPM Annual Meeting Session: CE - Imaging: Safety/Risk I. Anaheim, CA.
   https://www.aapm.org/education/VL/vl.asp?id=202
6. *Dosimetry in Pregnant Patients Undergoing CT and Fluoroscopy.* 2011 Joint AAPM/COMP Meeting Session: Imaging Educational Course - Calculating Dose (Dose I + II). Vancouver, Canada.
   https://www.aapm.org/education/vl/vl.asp?id=2711

TV/Radio/Podcasts and Print Media Exposure

TV/Radio/Podcast Interviews only

1. Interview with Jennifer Ryan of Channel 9 TV, Washington DC. Whole body CT screening. Segment aired on Nov 13th, 2002
2. Interview with Dr. Steven Green. The Healthcare Channel. "The Cancer Risk from CT Scans." www.cortextv.com, March 2007.
   http://www.youtube.com/watch?v=o_s6eKXHxy0&feature=player_embedded
3. Interview with RSNA Media aired in Maryland (Nov 2009).
4. Interview on **Voice of America** on Airport Whole Body Scanners, January 2010. The story was aired on Jan 13th, 2010
5. Interview on **PBS Newshour** (formerly PBS Newshour with Jim Lehrer) regarding airport whole body scanners and perspectives on radiation dose and associated risks. The story was aired on Jan 20th, 2010 and the link to the story is as follows: https://www.pbs.org/newshour/show/after-christmas-bomb-plot-new-airport-screening-techniques-examined
6. Interview with Elizabeth Tracey for Johns Hopkins Medicine Podcast on Airport Scans. Podcast aired on Feb 23rdand 24th, 2010.

7. Interview with Joe De Capua of Voice of America on the British Medical Journal Editorial on Airport Scanners (March 1st, 2010).
8. Interview on **Voice of America** on Virtual Colonoscopy. Interview at VOA station in Washington DC on April 2nd, 2010.
9. Interview with Leone Amy of WUSA Channel 9 News on airport scanner. Story aired on November 23rd, 2010 at 5 pm news.
10. Interview about airport scanners with RSNA On-the-air program, Nov 29th, 2010.
11. Interview with Thomas James and Leone Amy of WUSA Channel 9 News, Washington DC, about Cellular Phone and Cancer Risk. The interview was in response to a book by Devra Davis on 'Dis-connect' (December 10th, 2010). Interview aired on Dec 14th and 15th in WUSA 9 channel.
    The same interview also aired in the following cities in US: Colorado, DN Channel 9 KUSA News; Columbia, SC WLTX.com; Atlanta, GA – 11alive.com; Buffalo, NY – WGRZ.com; Portland, ME – WCSH6.com; Little Rock, AR – todaysthv.com; Trias, NC – digtriad.com; Bangor, ME – WLBZ2.com.
12. Interview with Craig Sorrell - host of weekly podcast 'Safe and Sound' about airport scanners on December 13th, 2010.
13. Interview with Elizabeth Tracey of JHMI Podcast – podcast aired on Dec 3rd, 2010 on local NPR stations.
14. Interview with Steven Greer, MD – CEO of Healthcare Channel on radiation risks from Japan's nuclear reactor emission. Story aired on Fox's Bill O'Reilly show on April 1st, 2011. http://www.youtube.com/watch?v=J0di06ZeTdU&feature=player_embedded
15. Interview about radiation risk from Japan nuclear reactor emission with Elizabeth Tracey of JHMI Podcast – story aired on April 4th, 2011 in local NPR station.
16. Interview on airport scanners with Elizabeth Tracey of JHMI Podcast – story aired on April 6th, 2011 in local NPR station.
17. Interview about Radiation Dose in CT. RSNA On-the-air program, November 2011.
18. Interview about radiation risk from CT for pediatric patients with local NBC reporer – story aired in Washington DC local TV channels. August 2012.
19. Interview about radiation risk from CT for pediatric patients with Elizabeth Tracey of JHMI Podcast – story aired on June 18th and 19th, 2012 in local NPR station.
20. Interview about Pediatric Radiation Dose in CT. RSNA On-the-air program, November 2012.
21. Interview about Radiation Safety. RSNA On-the-air program, November 2013.
22. Interview about Advances in Radiation Dose Reduction. RSNA On-the-air program, November 2014.
23. Interview about CT Dose and Technology. RSNA On-the-air program, December 2015.
24. Interview about Pediatric CT Dose. RSNA On-the-air program, December 2016.
25. Interview on Image Wisely Facebook Live on Crematorium – 2019
26. Interview with Elizabeth Tracey for Johns Hopkins Medicine Podcasts on airport scanner and people with certain medical conditions. https://podcasts.hopkinsmedicine.org/2016/10/07/october-12-2016-doctors-note/
27. Interview on CTISUS Facebook Live on Pregnant Patient – 2018
28. Interview with Dave Fornell, Editor of Imaging Technology News (ITN). Trends in Medical Physics at the AAPM 2019 meeting. https://www.itnonline.com/content/blogs/dave-fornell-itn-editor/hottest-topics-medical-physics-aapm-2018
29. Interview with Dave Fornell, Editor of Imaging Technology News (ITN). The hottest topics in medical physics at AAPM 2018. https://www.itnonline.com/videos/video-role-medical-physics-across-medical-subspecialties
30. Interview with Dave Fornell, Editor of Imaging Technology News (ITN). "Radiation from Medical Imaging in U.S. Dropped over past decade" at RSNA meeting (Chosen as #10 of top 20 videos of 2019) (https://www.itnonline.com/videos/video-radiation-medical-imaging-us-dropped-over-past-decade)
31. Interview with The Power of the Patient Project. "Understanding Imaging: A Patient Guide" https://bit.ly/2XsP0m3 August 2021.

Print media interviews only (cited in print media)

32. Interview with Marti Benedetti of Crain's Detroit Business newspaper, Detroit, MI. "Executive Life – A controversial image." Article printed in Crain's Detroit Business Section, June 2nd, 2003.
33. Interview with Mary Ann Treger for Chesapeake Life magazine, Baltimore, MD. "A Different Point of View – The pros and cons of whole-body scans." Chesapeake Life, Mar/Apr 2004.
34. Interview with Yasmine Iqbal, Contributing Editor for Outpatient Surgery Magazine. Article on C-arm Safety Tips. Outpatient Surgery Magazine, 35-41. November 2005
35. Interview from CCNews, for the article "U.S. Residents exposure to medical radiation six times higher than in 1980". www.CCNmag.com, April 2007. Also listed in JHU News Index April 07.
36. Interview with American Neuroradiology Academy. "CT Dose and Risk", December 2007
37. Interview with Contributing Editor for Outpatient Surgery Magazine. Article on C-arm Safety Tips. Outpatient Surgery Magazine. November 2008
38. Interview with Jason Baradi – AIP Science Writer, 2008.
39. Interview with Bill Gottileb – *BOTTOM LINE* ***health*** magazine. "Medical Radiation Dangers – Five Questions to Ask Before Receiving an Imaging Test." July 2009.
40. Interview with Health Imaging magazine reporter. "CT: Slice war slows down, dose war heats up". http://www.healthimaging.com/topics/diagnostic-imaging/ct-slice-war-slows-down-dose-war-heats
41. Interview with Mathew Robb for ACR NEWS magazine. "Airport Whole Body Scanners Likened to Virtual Strip Search" 2009.
42. Interview with Rosemary Gibson for a book on overuse of unnecessary medical treatment, May 2009.
43. Interview with *BOTTOM LINE* ***health*** magazine, December 2009.
44. Interview with Elizabeth Callahan of Women's Health Magazine reporter on Airport Full-Body Scanners. Jan 29th, 2010.
45. Interview with Mary Beth Nierengarten - Lancet Oncology journal. "Cancer Risk Associated with Increased CT Use Spurs Discussion of Risk/Benefit of Scans". The article is published in March 2010 issue. http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(10)70050-4/fulltext
46. Interview with Janice Horowitz – reporter for The Huffington Post and host of Dueling Docs, on airport body scanners and radiation risks. (Feb 24th, 2010). http://www.huffingtonpost.com/janice-horowitz/dueling-docs-are-airport_b_480187.html
47. Interview with Judy Graham – Chicago Tribune for a story on full body scanners. (Feb 26th, 2010). Article published on March 8th, 2010. http://www.chicagotribune.com/news/local/ct-met-radiation-airport-body-scan-20100307,0,6864140.story
48. Interview with Inside Science News Service reporter for article titled – 'Medical Physicists: CT Scans Safe.' Web publication in April 2010 http://www.insidescience.org/current_affairs/medical_physicists_ct_scans_safe
49. Interview with Aunt Minnie reporter regarding RSNA research presentation on 'Imaging in pediatric trauma patients.' http://www.auntminnie.com/index.asp?Sec=sup&Sub=cto&Pag=dis&ItemId=90261
50. Interview with *BOTTOM LINE* ***health*** magazine, November 2010.
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52. UK newspaper 'The Independent' quoting BMJ editorial: http://www.independent.co.uk/life-style/health-and-families/health-news/scanners-are-threat-to-privacy-not-health-1908543.html
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57. Interview with Stacey Singer of The Palm Beach Post on airport scanner. Story published on November 23rd, 2010. http://www.palmbeachpost.com/money/debating-the-danger-are-airport-scanners-safe-1067942.html
58. Interview with Michael Dresser of Baltimore Sun on airport scanner on November 23rd, 2010. http://www.baltimoresun.com/news/maryland/bs-md-airport-security-20101123,0,150729.story
59. Interview with Newsday reporter – November 23rd, 2010. Interview appeared on Newsday.com and carried by other print media. http://www.newsday.com/long-island/scanner-or-pat-down-with-kids-not-an-easy-decision-1.2490819
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61. Interview with Clinical Innovation+Technology magazine reporter. Article published on Oct 7th, 2011. http://www.clinical-innovation.com/topics/technology-management/jacr-appropriate-use-top-strategy-optimize-rad-dose-abdominal-ct
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63. Interview with Health Imaging reporter. Article published on Feb 09, 2012. http://www.healthimaging.com/topics/oncology-imaging/jacr-ct-dose-reduction-optimal-rt-planning
64. Interview with "imaging biz" reporter. Article published on Dec 17, 2012. http://www.imagingbiz.com/changing-ct-dose-climate-william-w-backus-hospital-case-study?page=0%2C0
65. Interview with Navy Times reporter Gidget Fuentes on Radiation exposure from Fukushima-Daiichi nuclear plant accident on January 9th, 2013. Article published on January 14th, 2013.
66. Interview with Cynthia Keen for European Congress of Radiology (ECR) on the Radiation dose and CT and the talk given at the ECR 2015 meeting, Vienna, Austria. Article published on March 8th, 2015. https://www.myesr.org/html/img/pool/ECRToday2015_Sunday_March_8.pdf (accessed March 14th, 2015).
67. Applied Radiology – 2016 marks year for mandatory CT Dose Check http://appliedradiology.com/articles/2016-marks-year-for-mandatory-ct-dose-check
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69. Interview with Baltimore Sun reporter Meredith Cohn regarding RAD-AID and physics support.
70. Interview with Lisa Rapaport/Reuters published in West Fargo Pioneer. "When an airport scanner sees a cyst as a security threat" Sept 10th, 2016. https://www.westfargopioneer.com/news/4111590-when-airport-scanner-sees-cyst-security-threat
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76. How Johns Hopkins uses Facebook Live to instantly push pressing radiology discoveries across the globe. June 01, 2020. https://www.radiologybusiness.com/topics/leadership/johns-hopkins-facebook-live-covid-19-shielding-jacr
77. Facebook Live effective avenue for sharing radiology knowledge. June 2, 2020. https://www.diagnosticimaging.com/di-executive/facebook-live-effective-avenue-sharing-radiology-knowledge
78. ACR Press Statement (AAPM/ACR/HPS Joint Statement on Proper Use of Radiation Dose Metric Tracking for Patients Undergoing Medical Imaging Exams): Disputed EHR dose levels could keep patients from getting necessary imaging exams. http://ow.ly/pFRy50FS9bM August 11th, 2021.
79. Health Imaging Magazine "ACR Warns against using 'arbitrary radiation dose metrics to guide medical imaging decisions." http://ow.ly/5UHi50FS94Q August 11th, 2021.
80. Radiology efforts over past decade led to 20% drop in patient's radiation dose, report shows. https://www.healthimaging.com/topics/molecular-imaging/radiology-20-drop-patients-radiation-dose
81. ACR Bulletin. Q & A on NCRP 184 report https://www.acr.org/Practice-Management-Quality-Informatics/Quality-Care-News/Newsletter/Quality-and-Safety-eNews-March-2020/QA-With-Mahadevappa-Mahesh Accessed February 14th, 2022.

Recent Mentions in the Media (as of 02-02-2020):

1. **Interview with Mary Chris Jaklevic regarding patient shielding. Article was published in The New York Times on January 14th, 2020.** That Lead Apron in the X-Ray Room? You May Not Need It (The New York Times) (https://www.nytimes.com/2020/01/14/well/live/radiation-exposure-x-rays-scans-lead-apron.html)
2. **Interview was also published by Kaiser Health News under the title -** No Shield From X-Rays: How Science Is Rethinking Lead Aprons (Kaiser Health News) (https://khn.org/news/no-shield-from-x-rays-how-science-is-rethinking-lead-aprons)
   Same story was republished in the following media outlets:
   - 2.1. AuntMinnie
   - 2.2. Press of Atlantic City
   - 2.3. Omaha World-Herald
   - 2.4. Richmond Times-Dispatch
   - 2.5. The Tennessean
   - 2.6. Salon
   - 2.7. *Health*Leaders
   - 2.8. The Daily Times
   - 2.9. Bonner County Daily Bee
   - 2.10. The Grand Junction Daily Sentinel
   - 2.11. Patch
   - 2.12. ViaWorldNews.com
   - 2.13. PressFrom
   - 2.14. Break'n News

Same story also carried out in TV news outlets

3. Some hospitals are ditching lead aprons during X-rays (ABC News) (https://abcnews.go.com/Health/hospitals-ditching-lead-aprons-rays/story?id=68305496)
   - 3.1. MSN

3.2. Good Morning America

3.3. Sagacious News (https://sagaciousnewsnetwork.com/some-hospitals-are-ditching-lead-aprons-during-x-rays/)

4. Some hospitals say using lead aprons for X-rays does more harm than good. Lurie will stop using the shields this spring. (Chicago Tribune) (https://www.chicagotribune.com/business/ct-biz-protective-lead-apron-x-rays-20200117-e4ep7nzxhzc5xf3r4lfaq2nh5q-story.html)
5. Interview with AXIS imaging website regarding NCRP Statement #13 – NCRP recommendations for ending routine gonadal shielding during abdominal and pelvic radiology. Article published http://ow.ly/YEPF50ErqLZ
6. Interview with Fact-Checking Reporter of Agence France-Presse (AFP) regarding "5G radiation causes flu-like symptoms." Article demystifying the false claim. Published on February 2nd, 2002. https://factcheck.afp.com/doc.afp.com.9XB239 The same article was picked by Yahoo News and was published in India and other countries.
7. Interview regarding participating in the continuing certification with ABR. Blog published February 10th, 2022 https://www.theabr.org/blogs/volunteer-happily-participates-in-continuing-certification

Citation in Aunt-Minnie (www. auntminnie.com):

1. CT delivers 91% of total pediatric ER radiation dose. April 14, 2010. https://www.auntminnie.com/index.aspx?sec=sup&sub=cto&pag=dis&ItemID=90261
2. JACR articles address dose reductions in CT. August 3, 2011. https://www.auntminnie.com/index.aspx?sec=sup&sub=cto&pag=dis&ItemID=96054
3. JACR: Experts point the way to low-dose chest CT. September 1, 2011. https://www.auntminnie.com/index.aspx?sec=sup&sub=cto&pag=dis&ItemID=96341
4. Radiation dose and CT: What really are the essentials? March 8, 2015. https://www.auntminnie.com/index.aspx?sec=rca&sub=ecr_2015&pag=dis&ItemID=110389
5. Can Radiation therapy and cremation safely coexist? March 14, 2019. https://www.auntminnie.com/index.aspx?sec=sup&sub=mol&pag=dis&ItemID=124893
6. CRCPD presentation in Alaska – May 2019. https://www.acr.org/Advocacy-and-Economics/Advocacy-News/Advocacy-News-Issues/In-the-May-18-2019-Issue/Mahesh-Addresses-Pediatric-CT-Dose-Issues?utm_source=AIA_052119&utm_medium=Email&utm_campaign=Name&_zs=rlvOD1&_zl=Bu975
7. CPT presentation in Chicago – May 2019. https://www.acr.org/Advocacy-and-Economics/Advocacy-News/Advocacy-News-Issues/In-the-May-18-2019-Issue/ACR-Presents-Code-Proposals-at-AMA-CPT-Meeting?utm_source=AIA_052119&utm_medium=Email&utm_campaign=Name&_zs=rlvOD1&_zl=7u975
8. No shield from x-rays: How science is rethinking lead aprons. January 16th, 2020. https://www.auntminnie.com/index.aspx?sec=sup&sub=xra&pag=dis&ItemID=127888
9. Report: Medical radiation dose plummets 20%. March 17th, 2020. https://www.auntminnie.com/index.aspx?sec=sup&sub=cto&pag=dis&ItemID=128455

Radiology Business articles

1. Reducing radiation exposure in medical imaging: How radiology is making a difference, one patient at a time. June 12, 2017. https://www.radiologybusiness.com/topics/imaging-informatics/reducing-radiation-exposure-medical-imaging-how-radiology-making
2. Gadolinium: Actual offender or unwitting pretender? Nov 30th, 2018. https://www.radiologybusiness.com/topics/care-delivery/gadolinium-actual-offender-or-unwitting-pretender

3. How Johns Hopkins uses Facebook Live to instantly push pressing radiology discoveries across the globe. June 01, 2020. https://www.radiologybusiness.com/topics/leadership/johns-hopkins-facebook-live-covid-19-shielding-jacr
4. Medical Imaging radiation exposure fell by 20% over past decade. March 17, 2020. https://www.healthimaging.com/topics/molecular-imaging/medical-imaging-radiation-exposure-fell-20
5. Radiologists have helped significantly decrease patients' radiation dosages over the past decade, new report finds. November 18, 2019. https://www.radiologybusiness.com/topics/quality/radiologists-patient-radiation-dosage
6. Radiology efforts over past decade led to 20% drop in patient's radiation dose, report shows. November 18, 2019. https://www.healthimaging.com/topics/molecular-imaging/radiology-20-drop-patients-radiation-dose
7. Q&A: Why the public should not worry about radiation contamination when bodies are cremated. March 8, 2019. https://www.radiologybusiness.com/topics/care-delivery/radiation-contamination-cremation-bodies-aapm-acr
8. AAPM: Patient gonadal and fetal shielding unnecessary during x-rays. April 5, 2019. https://www.radiologybusiness.com/topics/policy/patient-shielding-gonadal-fetal-during-x-rays-aapm
9. For Medical Physicists, The Times they are a-changing. Oct 13, 2017. https://www.radiologybusiness.com/topics/policy/medical-physicists-times-they-are-changin
10. Gadolinium: Actual offender or unwitting pretender? November 30, 2018. https://www.radiologybusiness.com/topics/care-delivery/gadolinium-actual-offender-or-unwitting-pretender
11. GBCAs should be used when necessary; but minimize repeating scans on the same patient. April 13, 2018. https://www.radiologybusiness.com/topics/care-delivery/gbcas-should-be-used-when-necessary-minimize-repeating-scans-same-patient
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14. Study pinpoints techniques for CT radiation dose reduction. August 3, 2011. https://www.radiologybusiness.com/topics/business-intelligence/study-pinpoints-techniques-ct-radiation-dose-reduction
15. CT: Slice war slows down; dose war heats up. September 22, 2009. https://www.healthimaging.com/topics/diagnostic-imaging/ct-slice-war-slows-down-dose-war-heats
16. RSNA 2011 Exceeds Expectation. December 15, 2011. https://www.healthimaging.com/topics/diagnostic-imaging/rsna-2011-exceeds-expectations
17. JACR: Appropriate use is top strategy to optimize rad dose in abdominal CT. October 7, 2011. https://www.healthimaging.com/topics/diagnostic-imaging/rsna-2011-exceeds-expectations
18. JACR: Is CT dose reduction optimal for RT planning? February 10, 2012. https://www.healthimaging.com/topics/oncology-imaging/jacr-ct-dose-reduction-optimal-rt-planning
19. Changing the CT dose climate: William W. Backus hospital case study. https://www.radiologybusiness.com/sponsored/1085/changing-ct-dose-climate-william-w-backus-hospital-case-study
20. RSNA: Best practices for communicating dose risks to patients. November 28, 2011. https://www.cardiovascularbusiness.com/topics/cardiovascular-imaging/rsna-best-practices-communicating-dose-risks-patients
21. How Johns Hopkins uses Facebook Live to instantly push pressing radiology discoveries across the globe. June 01, 2020. https://www.radiologybusiness.com/topics/leadership/johns-hopkins-facebook-live-covid-19-shielding-jacr

22. Facebook Live effective avenue for sharing radiology knowledge. June 2, 2020. https://www.diagnosticimaging.com/di-executive/facebook-live-effective-avenue-sharing-radiology-knowledge

FUNDING

Current

2021 DELTA Grant ($55K)
Development and Evaluation of Open-Access Educational Media for Medical Trainees Studying MRI Physics
JHU-2021 DELTA Grant, PI: Erin Gomez, MD
Role: Co-Investigator

Previous

2006 Evaluation of CT dose modulation (CAREDOSE)
JHU-2006-CT-26-01
Siemens Medical Systems
Role: Principal Investigator

2008 Radiation Dose Reduction in Computed Tomography Angiography
JHU-2006-CT-04-01
Siemens Medical Systems
Role: Principal Investigator

2008-2010 Radiation Exposure from Medical Imaging: Are Doses in Carcinogenic Range?
R21CA131698-01A1
NIH
PI: Rebecca Smith-Bindman, MD
Role: Consultant

2005-2008 Simulation Tools for Dynamic CT
RO1 EB 00183
NIH
PI: Paul Segars, PhD
Role: Co-Investigator

2002-2008 National Lung Screening Trial
ACRIN Study
NCI
Site PI: Elliot Fishman, MD
Role: Site Physicist

2002-2004 Digital vs. Screen-Film Mammography
ACRIN 6652
NCI
PI: Laurie Fajardo, MD and Nagi Khouri, MD
Role: Co-Investigator – 10% and Site Physicist

2001 Field Trial of Mobile Digital Mammography
PI: Joseph Gitlin, PhD
Role: Consultant

1999-2005 Multi-Ethnic Study of Atherosclerosis Trial (MESA study)
PI: David Bluemke, MD, PhD
Role: Co-Investigator – 2.5%

EXTRAMURAL Funding

Current None

Previous

2006 Evaluation of CT dose modulation (CAREDOSE)
JHU-2006-CT-26-01
Siemens Medical Systems
Role: Principal Investigator

2008 Radiation Dose Reduction in Computed Tomography Angiography
JHU-2006-CT-04-01
Siemens Medical Systems
Role: Principal Investigator

2008-2010 Radiation Exposure from Medical Imaging: Are Doses in Carcinogenic Range?
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2005-2008 Simulation Tools for Dynamic CT
RO1 EB 00183
NIH
PI: Paul Segars, PhD
Role: Co-Investigator

2002-2008 National Lung Screening Trial
ACRIN Study
NCI
Site PI: Elliot Fishman, MD
Role: Site Physicist

2002-2004 Digital vs. Screen-Film Mammography
ACRIN 6652
NCI
PI: Laurie Fajardo, MD and Nagi Khouri, MD
Role: Co-Investigator – 10% and Site Physicist

2001 Field Trial of Mobile Digital Mammography
PI: Joseph Gitlin, PhD
Role: Consultant

1999-2005 Multi-Ethnic Study of Atherosclerosis Trial (MESA study)
PI: David Bluemke, MD, PhD
Role: Co-Investigator – 2.5%

INTRAMURAL Funding

Current

2007-present: Combined non-invasive coronary angiography and myocardial perfusion imaging using 256-detector CT and 320-detector MDCT. JCCI Approved
PI: Joao Lima, MD **Role: Co-Investigator**

Previous

2013-2015: Low Dose Head Computed Tomography (CT) for Children with Shunted Hydrocephalus"
NA_00075284 JCCI Approved
PI: Edward Ann, MD **Role: Co-Investigator**

2006-2014: Non-calcified Plaque in SLE
JCCI approved
PI: Michelle Petri, MD **Role: Co-Investigator**

2002-2003: Radiation Exposure Monitoring of Patients Undergoing Radio-Frequency Ablation for Cardiac Arrhythmias of Different Origin
JCCI approved
PI: Hugh Calkins, MD **Role: Co-investigator**

1996-1999: Skin Dose Monitoring of Patients During Fluoroscope Guided Interventional Procedures
JCCI approved
PI: Hugh Calkins **Role: Co-investigator**

CLINICAL ACTIVITIES

Clinical Focus

Radiation dosimetry for CT, Interventional Fluoroscopy and Radiography, Evaluation of medical imaging modalities for safe clinical use, Developing radiation dose optimization strategies for medical x-ray imaging procedures

Certification

Medical, other state/government licensure

License: Maryland State X-ray Inspectors License (License No. 828) 1993-present
Maryland Department of Environment, Maryland

Boards, other specialty certification

Boards: American Board of Radiology – Diagnostic Radiologic Physics 1996

Clinical (Service) Responsibilities/ Productivity

1993 – present Chief Physicist – Diagnostic Medical Physics

As chief physicist for the Johns Hopkins Hospital, I actively take part in ensuring radiation safety to patients and staff alike from medical imaging modalities. I am also responsible for maintaining regulatory compliance to ensure optimal image quality and patient safety. Also, I am responsible for ensuring timely inspections of all x-ray imaging modalities to comply with the State of Maryland regulations, national accreditation, and joint commission requirements. I often provide consultations to patients and staff on radiation dose and risks and discuss benefits-risks analysis from medical x-ray imaging procedures.

Membership in or examiner for specialty board

2002-present Remote Distance Continue Education (RDCE) Program – American Association of Physicists in Medicine (AAPM)

2004-2011	American College of Radiology Diagnostic X-ray In-Training (DXIT) Examination. Role: Chair of Physics Panel
2010-2013	Certification Board of Cardiovascular Computed Tomography (CBCCT) Examination. Role: Co-Chair on Radiation Safety
2013 – 2015	Cardiac and Thoracic Core Exam Writing Committee for Radiology Residents Board Exam – American Board of Radiology
2013 – 2019	Oral Board Exam Writing Committee – American Board of Radiology
2009 – present	Online Learning Activities (OLA) formerly Maintenance of Certification (MOC) exam writing committee – American Board of Radiology
2015 – 2019	Cardiac Core Exam Writing Committee for Radiology Residents Board Exam – American Board of Radiology
2008 – present	Oral Board Examiner – Diagnostic Medical Physics - American Board of Radiology

Clinical Demonstration Activities to external audience, on or off campus

Phantom Reviewer (external reviewer for nation wide submission) for American College of Radiology

2004 – present	Computed Tomography Accreditation Program - American College of Radiology
2004 – present	Mammography Accreditation Program - American College of Radiology
2007 – present	Magnetic Resonance Imaging Accreditation Program - American College of Radiology

EDUCATIONAL ACTIVITIES

Educational Focus

Medical Imaging Physics, Radiation Dosimetry, Radiation Safety, Radiation Protection, CT Dose Optimization, Patient dose evaluation, Minimizing radiation risks from interventional fluoroscopy

My educational focus is about teaching a year-long course on various medical physics topics for radiology residents as part of their residency training program. Give lectures on radiation protection to medical students and to radiology and cardiology fellows on how to minimize radiation risks during interventional fluoroscopy. In addition, on an on-going basis offer educational sessions on radiation to various groups including physicians, technologists and nurses.

TEACHING

Classroom and Clinical Instruction

1993-present	Discuss with patients the risks versus benefits after completing radiation dose estimation for different radiation medical imaging procedures.
1994-present	Radiology Staff, Technologists, Nurses, and Endoscopy staff; Lecture: *Radiation Protection and Risks and Other Diagnostic Medical Physics.* Approximately 2-6 contact hours per year
1994-present	Cardiology Fellows and Interventional Fellows; Lecture: *Radiation Protection for Interventional Procedures. Principles of MDCT, Radiation Dose and Image Quality.* Approximately 3-8 contact hours per year
1994-2005	Nuclear Medicine Technologists; Course: *Nuclear Physics and Instrumentation.*
1995-2005	X-ray Technologists; Lecture: *Radiation Safety and Protection, Quality Control in Diagnostic Radiology, Radiation Biology, and other related areas*.
1995-present	Radiology Residents: Medical physics course for radiology residents. Approximately 30-50 contact hours per year
1995-present	Nuclear Medicine Residents; Lecture: *Basic Nuclear Medicine Physics, Radiation Biology and Radiation Protection and Computed Tomography* as part of physics course for residents preparing for nuclear medicine board certification exam. Approximately 5-7 contact hours per year

2000-present Medical Students: One lecture per cycle (medical student clinical rotation): *Radiation Dose, Risk, and Protection*. Approximately 10-12 lectures per year

2004-present Graduate Students, 585.605.31; Medical Imaging Course: Lectures on *Computed Tomography for Medical Imaging;* Johns Hopkins Applied Physics Laboratory, Part-time Graduate Programs in Engineering and Applied Science (offered based on student enrollment)

2009-present Graduate Students, ECE 520.434/BME 580.472; Modern Biomedical Imaging Instrumentation and Techniques; Lectures on Computed Tomography and Radiation Dose; Johns Hopkins University, Biomedical Engineering Program (offered based on student enrollment)

2012-present Graduate Students, JHSPH 182.637; Noise and Other Physical Agents in the Environment Lectures on Ionizing Radiation Health; Johns Hopkins School of Public Health

CME Instruction, Workshops /seminars

9/01 Technical Aspects and Clinical Considerations of Imaging for the Radiation Therapy Physicist. Course Director and Speaker. Baltimore, MD.

11/01 AAPM/RSNA Physics Tutorial for Residents: Topics in CT. Course Director and Speaker. Chicago, IL.

7/02 44th Annual Meeting of AAPM, Continuing Education Course on CT Physics. Chair and Speaker. Montreal, Quebec, Canada.

7/02 44th Annual Meeting of AAPM, *Symposium on CT Dose Reduction Method.* Chair and Moderator. Montreal, Quebec, Canada.

8/02 Radiologic Physics Review Course for *Residents in Radiology and Nuclear Medicine.* Course Director and Speaker. New York, NY.

9/03 Breast Imaging Physics Symposium. Course Director and Speaker. Baltimore, MD.

11/03 AAPM/RSNA Physics Tutorial for Residents. Chair, Course Director and Speaker. Chicago, IL.

11/04 Chair for AAPM/RSNA Physics Tutorial for Residents. Course Director and Speaker. Chicago, IL.

7/05 Fluoroscopy Credentialing Course. Director and Speaker. Bon Secours Hospital, Baltimore, MD.

11/05 AAPM/RSNA Physics Tutorial for Residents: Cardiac CT Physics.Chair, Course Director, and Speaker. Chicago, IL

12/05 Fluoroscopy Credentialing Course, Johns Hopkins Hospital, Baltimore, MD. Course Director and Speaker

7/06 AAPM International Symposium on Advances in Diagnostic Medical Physics and Workshop on Cyclotron PET/CT. New-Delhi, India. Course Director and Speaker. Sponsored by the International Scientific Exchange Program of AAPM, USA and Association of Medical Physicists of India, New-Delhi, India.

11/06 AAPM/RSNA Physics Tutorial for Residents: Dual-modality Imaging Physics. Chair and Course Director. Chicago, IL.

07-08 Practicum on Physics Principles of Cardiac Imaging with MDCT – What the Cardiologists/Radiologists needs to know? Course Director and Speaker. Johns Hopkins University School of Medicine, Baltimore, MD. (More than 10 talks.)

11/08 AAPM/RSNA Physics Tutorial for Residents: Radiation Doses in Medical Imaging, Chair, Course Director and Speaker. Chicago, IL.

11/09 AAPM/RSNA Physics Tutorial for Residents: Physics of Flat-Panel Fluoroscopy, Chair, Course Director and Speaker. Chicago, IL.

11/10 96th RSNA Scientific Assembly and Annual meeting. Course Director and Moderator, Chicago, Il.

6/11 AAPM-ISEP course on Diagnostic Physics. Course Co-Director, Patras, Greece.

7/11 53rd Annual meeting of American Association of Physicists in Medicine. Invited Speaker and SAM session organizer, Vancouver, British Columbia, Canada.

11/11 97th RSNA Scientific Assembly and Annual meeting. Director of Refresher Mini-Course – Patient and Staff Safety with Focus on Radiation Dose Reduction., Chicago, Il.

10/12 AAPM-ISEP 'Diagnostic Imaging Workshop' Course Co-Director, Buenos-Aires, Argentina.

11/13 99th RSNA Scientific Assembly and Annual meeting; Director of Refresher Mini-Course – Current Topics in Medical Physics – Radiation Dose Reduction in Medical Imaging, Chicago, Il.

7/14	56th Annual Meeting of American Association of Physicists in Medicine. SAM course organizer and speaker, Austin, TX
11/14	100th RSNA Scientific Assembly and Annual meeting; Director of Refresher Mini-Course – Current Topics in Medical Physics – Radiation Dose Reduction in Medical Imaging, Chicago, Il.
5/15	ACR 2015 The Crossroads of Radiology. Organizer, Moderator and Speaker. Washington DC.
11/15	101st RSNA Scientific Assembly and Annual Meeting. Organizer, Moderator and Speaker. Chicago, Il
5/16	ACR 2016 The Crossroads of Radiology. Organizer, Moderator and Speaker. Washington DC.

Mentoring

Mentoring

2010 – 2014	Michael Jacobs, PhD. – Johns Hopkins University School of Medicine. Advisor for clinical medical physics topics
2013	Rezvan Ravanfar Haghighi - External examiner for doctoral thesis evaluation titled, 'Evaluation of Coronary Artery Plaque' conducted at All India Institute of Medical Sciences, New Delhi, India
2014 – 2019	Mona Mohammed, MD – Johns Hopkins University School of Medicine (as Process Mentor)
2015 – 2019	Eleni Liapi, MD - Johns Hopkins University School of Medicine (as Process Mentor)
2016 – present	Alice Goldman, MD - Johns Hopkins University School of Medicine (as Process Mentor)
2018 – 2021	Dan Ryan, MD - Johns Hopkins University School of Medicine (as Process Mentor)
2018 – present	Nirbhay Narayan Yadav, PhD. - Johns Hopkins University School of Medicine (as Process Mentor)
2018 – present	Peter Jermain, MS – University of Massachusetts-Lowell, Massachusetts

Post-Doctoral Fellow:

8/06 - 12/06	Yoshinori Funama, Ph.D., Medical physicist from Kumamoto University, Kumamoto, Japan.

IAEA Visiting Fellow:

3/06 – 6/06	Olukorede Adewole; Clinical fellow from Nigeria on a fellowship from the International Atomic Energy Agency (IAEA) for training in clinical nuclear medicine physics

Post-Doctoral Fellow:

1/95 – 09/95	C.K. Subramaniam, Ph.D.; Provided clinical experience in quality control activities for radiographic, fluoroscopic, and mammography systems. Currently employed as a Chief of Clinical Physicist at the Mount Sinai Medical Center, New York, NY

Graduate students:

1/95 – 4/95	Veerghese Kurian, M.S.; Enrolled in 'Special Topics in Diagnostic Radiology' independent reading course, as part of the masters' program in the Division of Radiation Health at the Johns Hopkins University School of Public Health.
8/96 – 2/97	Firas Mourtada, M.S.; Enrolled in 'Special Topics in Diagnostic Radiology' independent reading course, as part of the Ph.D. program in the Division of Radiation Health at the Johns Hopkins University School of Public Health.

Undergraduate and high school students:

6/01 – 8/01	Undergraduate and Summer Intern: Nicole Detorie; As part of the Inroads program, this undergraduate student spent 8 weeks in the laboratory working on a number of projects including developing software for computing radiation dose during mammography.
6/01 - 8/01	Summer Interns: Davneet Minhas; As part of a volunteer program, this high school senior spent 8 weeks in the laboratory working on a number of projects including maintaining the

literature database, digitizing slides, and developing software for computing radiation dose during mammography.

6/12 – 8/12 Undergraduate and Summer Intern: Hannah Ponek (AAPM Summer Undergraduate Fellow)

Educational Program Building/Leadership

2021 – present Core Faculty – Medical Physics Graduate Masters' Program

2011 – present Johns Hopkins e-Radiology Physics Lecture Series (2011 – present)

As part of e-radiology physics lecture series, one-hour lectures with questions recorded in the studio and licensed to radiology residents and to radiology residency programs in the United States and in other countries including Brazil, Saudi Arabia and others. http://www.hopkinsmedicine.org/e-radiology/e-Physics/

List of topics available in the Johns Hopkins e-radiology physics program are:

1. Basic X-ray Physics Part 1
2. Basic X-ray Physics Part 2
3. Radiation Units – Measurements and Exposures
4. Radiation Doses in Medical Imaging and Trends
5. Radiation Protection in General
6. Basic Concepts in Radiography
7. Digital X-ray Imaging – CR and DR
8. Mammography Physics and Digital Mammography
9. Fundamentals of Medical Image Quality
10. Fundamentals of Fluoroscopy Physics and Systems
11. Minimizing Radiation Risks in Fluoroscopy
12. Mammography Physics
13. Fundamentals of Computed Tomography
14. CT Dose and Dose Reduction Strategies
15. CT Scan Parameters and Image Quality
16. Cardiac CT Imaging
17. Basic Nuclear Physics and Radioactivity
18. Nuclear Medicine Instrumentation
19. Hybrid Imaging: PET/CT, SPECT/CT and PET/MR
20. Imaging Pregnant Patients
21. Imaging Pediatric Patients
22. Basic Radiation Biology
23. Basic Principles of MRI
24. MRI Pulse Sequences and Artifacts
25. MRI: Quality, Bio-effects and Safety

RESEARCH ACTIVITIES *(in chronological order, earliest first by start date under each subcategory)*

Research Focus

Radiation dose in CT, Patient dose and risk estimation, Communication of radiation dose and risks

For the past 25 years I have dedicated to the understanding of radiation doses in medical imaging procedures with focus on CT. Primary focus is clinical research for developing strategies to minimize radiation burden in CT and other medical x-ray imaging procedures and to ensure new imaging modalities are clinically acceptable in terms of image quality and patient dose. In addition, my focus is also on developing ways to understand and communicate radiation doses and risks with patients and staff alike. I conduct clinical research and collaborative projects on CT dose and

image quality. I have served as co-PI and/or investigator on number of national research projects including DMIST (Digital Mammographic Imaging Screening Trial), MESA (Multi-Ethnic Study of Atherosclerosis), NLST (National Lung Screening Trial) and ACRIN (American College of Radiology Imaging Network) trials.

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

1994-2005	Member, Quality Assessment and Improvement Committee, Department of Radiology, The Johns Hopkins Medical Institutions
1994-2005	Member, Advisory Committee Member for Nuclear Medicine Technology Program, The Johns Hopkins Medical Institutions
1998-2020	Member, Radiation Control Committee, The Johns Hopkins Medical Institutions
2000-2011	Coordinator, Francis Rao Memorial Best Student Presentation Award for X-ray and Nuclear Medicine Technology Students
2000-2016	Member, Johns Hopkins Hospital Management Forum, The Johns Hopkins Medical Institutions
2002-2012	Editorial board member, Radiology Newsletter
2004-present	Member, Clinical Radioactive Research Committee and Radioactive Drug Research Committee **(CRRC and RDRC)**, Johns Hopkins University School of Medicine and Johns Hopkins Medical Institutions
2009-2016	Member, Education Committee, Department of Radiology
2010-2016	Members, Faculty IT advisory committee, Department of Radiology
2011-2016	Chair – Subcommittee for Physics Integration, Education Committee, Department of Radiology
2013-2018	Member – Department Grand Rounds Committee, Department of Radiology
2015-present	Member – Radiology Residents Safety Curriculum Committee, Department of Radiology
2021-present	**Chair** – Johns Hopkins University Radiation Control Committee

Johns Hopkins University School of Medicine Faculty Senate

2015-2021	Elected Member – Johns Hopkins University Faculty Senate, Representating Radiology
2017-2019	**Secretary –** Johns Hopkins University Faculty Senate
2019-2021	**Chair –** Johns Hopkins University School of Medicine Faculty Senate
2019-present	**Organizer/Chair –** Assembly of Faculty Body Leaders across Johns Hopkins University
2019-2021	Voting member of Advisory Board of Medical Faculty (ABMF)
2019-2021	Voting member of Agenda Committee of Advisory Board of Medical Faculty (ABMF)
2019-2021	Member of Institute for Excellence in Education (IEE) Board of Directors
2019-2021	Member of JHM Operating Committee
2019-2021	Member of Senior Advisory Council (SAC)
2019-2021	Member of Committee of the Whole (COW)
2019-2021	Member of JHU School of Medicine Compensation Committee
2019-2021	Member of Educator Competencies and Metrics Committee
2019-2021	Member of Mentoring Committee
2019-present	Member of Welch Library Advisory Committee
2020-present	Member of Liaison Committee on Medical Education (LCME)

Johns Hopkins University

2019-2021	Chair of Assembly of Faculty Senate Body Leaders (under Provost office)
2020-2021	Member of University Pandemic Academic Advisory Committee (UPAAC) chaired by JHU President
2019-2020	Member of search committee for Radiation Oncology Department Chair selection

EDITORIAL ACTIVITIES

Editorial Board appointments

2005 - present	Guest Associate Editor, Medical Physics
2006 - 2011	Editorial Board Member, Journal of American College of Radiology
2007 - 2008	Editorial Advisory Panel Member, American Journal of Roentgenology (AJR)
2007 – 2011	Contributing Editor, RadioGraphics
2007 - 2015	Editor - AAPM Newsletter
2007 - present	Column Editor - Technology Talk and Medical Physics Consult - Journal of American College of Radiology (JACR) (monthly circulation >38,000)
2011 – 2019	Deputy Editor, Academic Radiology http://www.academicradiology.org/edboard
2011 – present	Associate Editor - Physics, Journal of American College of Radiology http://www.jacr.org/edboard
2012 - 2016	Guest Editor, JACR Radiation Dose Optimization in Computed Tomography
2013 - 2014	Associate Editor – Radiology
2012 - 2016	Editorial Board Member – Imaging Physics Chair, Radiographics
2015 - 2016	Consultant to the Editor – Radiology
2017 - 2019	Consultants to the Editor http://radiographics.rsna.org/site/misc/edboard.xhtml
2021	Associate Editor – Medical Physics, Applied Radiology https://www.appliedradiology.com/articles/growing-in-leaps-and-bounds

Journal peer review activities (Partial listing only)

Academic Radiology
American Journal of Roentgenology (AJR)
American Heart Journal (AHJ)
Applied Radiation and Isotopes
Journal of the American College of Radiology (JACR)
Journal of Computed Assisted Tomography (JCAT)
Journal of the American College of Cardiology (JACC)
Journal of the American College of Cardiology: Cardiovascular Imaging
Journal of Cardiovascular Computed Tomography (JCCT)
Journal of Vascular and Interventional Radiology (JVIR)
Medical Physics
Molecular Imaging
Radiology
RadioGraphics
Pacing and Clinical Electrophysiology (PACE)

Other peer review activities

NIH Study Section - Extramural Grants Review

2014-2017	Reviewer, Radiation SBIR/STTR Committee (ZRG1 OTC-R(11))

Oral Board Examiner

2008 - present	Oral Board Examiner for Physics Boards, The American Board of Radiology

Scientific Program Committee Member

2005-2010	Radiological Society of North America
2010-2013	Society of Cardiovascular Computed Tomography

Developing questions for:

2002-present	Remote Distance Continue Education (RDCE) Program – American Association of Physicists in Medicine
2004-2011	American College of Radiology Diagnostic X-ray In-Training (DXIT) Examination (Chair-Physics Panel)
2009-2018	American Board of Radiology Maintenance of Certification (MOC) exam in Diagnostic Radiological Physics exam committee
2010-2013	Certification Board of Cardiovascular Computed Tomography (CBCCT) Examination (Co-Chair on Radiation Safety)
2013-2018	American Board of Radiology Core Exam-Radiology Residents-Thoracic and Cardiac Core committees in Diagnostic Radiological Physics exam committee
2014-2018	American Board of Radiology Physics Oral Board Exam Writing Committee
2017-present	American Board of Radiology Physics Online Longitudinal Assessment (OLA) Committee

Advisory Committees, Review Groups/Study Sections

1994 - 2005	Nuclear Medicine Technology School Advisory Board, Johns Hopkins Hospital
2002 – present	Radiation Control Advisory Board, Maryland Department of the Environment, Baltimore, MD
2010 - 2014	Radiation Protection Advisory Council (RPAC) – Conference of Radiation Control Program Directors (CRCPD)
2010 - present	Public Information Website - Medical Advisors, RSNA-ACR
2012 - 2019	Imaging Communication Network – representing American Roentgen Ray Society – coordinated by RSNA and ACR
2019 – present	American College of Radiology – Data Science Institute advisory group

Professional Societies

United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)

2015 – present	National Contact person for United States

International Atomic Energy Agency (IAEA)

2005 – present	Consultant as Subject Matter Expert
2019	Expert Mission to Zambia
2018	Expert Mission to Brazil
2016	Expert Mission to Thailand

International Commission on Radiological Protection (ICRP)

2021-present	**Elected Member,** ICRP Committee 3: Radiological Protection in Medicine
2021-present	Member, Task Group, “Application of effective dose concept to individual patients in medicine”
2012-2014	**Member,** Task Group 86, “Justification of Imaging of Asymptomatic Individuals with Ionizing Radiation”

International Organization of Medical Physics (IOMP)

2018-2022	Member of Science Committee
2018-present	Member of Education and Training Committee
2015-2018	Member of Awards & Honors Committee
2022-present	Chair, Science Committee
2022-present	Member of Executive Committee

American Association for the Advancement of Science (AAAS)

2000 – present	Member

European Society of Radiology (ESR)

2018 – present Corresponding Member

National Council on Radiation Protection and Measurements (NCRP)

2005-2009 **Member,** Scientific Committee 6-2, "Ionizing Radiation Exposure of the United States Population" (NCRP report 160)
2013-2019 **Member,** NCRP Program Area Committee 4 (PAC 4) on "Radiation Protection in Medicine"
2014-present **Member,** Scientific Committee 4-8, "Improving Patient Dose Utilization in Computed Tomography"
2015-present **Elected Member,** NCRP Council (1 out 100 council member) (reelected to 2nd term)
2016-2020 **Co-Chair,** Scientific Committee 4-9, "Medical Exposure of Patients in the United States" (NCRP report 184)

American Association of Physicist in Medicine (AAPM)

1995-2004 Member, General Medical Physics Committee (Science Council)
1996-1997 Member, Local Arrangements Committee, AAPM Summer School 1997
1998-2004 Member, Medical Physics Education of Physicians Committee (Education Council)
1999-2002 Member, Task Group 5: Photodynamic Therapy Physics, General Medical Physics Committee
1999-2004 Member, Task Group 4: Fluoroscopy Credentialing Slides, Education Programs - Medical Physics Education of Physicians Committee
1999-2001 Member, Task Group 2: Self-Assessment Survey for Resident Physics, Education Programs - Medical Physics Education of Physicians Committee
1999-2002 Co-Chair, Task Group 5: Radiation Protection Slides for 2000, Medical Physics Education of Physicians Committee
1999-2004 **Chair,** Task Group 1: Radiobiology Teaching Slides, Education Programs - Medical Physics Education of Physicians Committee
2000-2001 Member, AAPM/RSNA Tutorial on Physics in Radiology Subcommittee
2000-2004 Member, Diagnostic X-ray Imaging (Science Council)
2001-2006 **Curator,** Partners in Physics Program
2001-2006 Member, International Affairs Committee
2001 International Imaging Industry Association - Technical Subcommittee 1T2-31 Representative, Liaison-member from AAPM
2001-2003 Member, Publications Committee, AAPM
2002-2010 Member, Asian Oceanic Affairs Subcommittee as Liaison – India
2002-2009 **Chair,** AAPM/RSNA Tutorial on Physics in Radiology Subcommittee
2003-2005 Member, RSNA Education Coordination Subcommittee
2003-2009 Member, Recruitment of Young Physicists into Medical Physics Subcommittee
2004-2006 Member, Task Group No. 110 – CT Noise Metrics
2004-2009 Member, Calibration Laboratory Accreditation Subcommittee – Radiation Therapy – Science Council
2004-2006 AAPM Board Member
2005-2010 Member, RSNA Program Committee
2005-2008 **Chair,** AAPM Audit Committee
2005-2008 Member, Professional Council
2006-2015 Member, Medical Physics Education of Physicians Committee (Education Council)
2006-2009 Member, Media Relations Subcommittee
2006-2016 Member of Electronic Media Coordinating *as Chair of Newsletter Editorial Board*
2006-2015 Member, Newsletter Editorial Board
2006-2012 Member, International Educational Activities Committee
2006-2015 **Editor,** AAPM Newsletter (starting January 2007)

2006-2009	Member, Professional Services
2006-2011	Member, Review of Radiation Physics Syllabi for Residents
2006-2009	Member, CRCPD Subcommittee as Liaison - CRCPD
2006-2009	Member, Radiography and Fluoroscopy Subcommittee
2006	Consultant member, Task Group No. 130 - Guidelines for Working with AOAS Supported PIP as Consultant
2006-2008	Member, TG 141(Joint Task Group of AAPM and SCA&I on Cath Lab. Radiation Protection)
2006-present	Member, TG 150 - Acceptance Testing and Quality Control of Digital Radiographic Imaging Systems
2006-2015	**Chair,** Newsletter Editorial Board
2006-2011	Member, Imaging Physics Curricula Subcommittee
2007-2012	**Chair,** International Scientific Exchange Programs Subcommittee
2007-2008	Member, Task Group No. 165 - Physician Radiological Sciences Education Liaison
2007-2008	Member, Task Group No. 164 -Website Editorial board
2008-2013	Member, Website Editorial Board
2008-2010	Member, Government and Regulatory Affairs – ACR
2008-2010	Member, International Affairs
2009-2015	Member, Budget Subcommittee
2009-2011	Member, Diagnostic Work and Workforce Study Subcommittee
2009-2011	Member, Finance
2008-2010	Member, Government and Regulatory Affairs Policy Sub-Committee
2010-2012	Member, Computed Tomography Subcommittee
2010-2012	Member, AAPM/RSNA Tutorial on Equipment Selection Tutorial Subcommittee
2010-2020	Member, Task Group No. 203 – Management of radiotherapy patients with implanted cardiac pacemakers and defibrillators
2010-2014	Member, Task Group No. 208 – Advertising revenue and policy
2011-2014	Member, AAPM/RSNA Tutorial on Physics in Radiology Subcommittee
2011-2013	AAPM Representative on ACR Subcommittee on Academic Radiology Policy Representative - American College of Radiology
2011-2015	Member, Physics Education Task Force Subcommittee
2012-2013	Member, International Scientific Exchange Programs Subcommittee
2009-2014	Member, Budget Subcommittee
2015	**Treasurer Designate**
2015	Member of Board of Directors *as Treasurer Designate*
2015	Member of Electronic Media Coordinating *as Treasurer Designate*
2015	Member of Executive Committee *as Treasurer Designate*
2015	Ad Hoc Headquarters Site Visit Committee *as Treasurer Designate*
2015	Administrative Council *as Treasurer Designate*
2015	Board of Directors *as Treasurer Designate*
2015	Development *as Treasurer Designate*
2015	Executive Committee *as Treasurer Designate*
2015	Finance Committee *as Treasurer Designate*
2015	International Educational Activities Committee *as Treasurer Designate*
2015	Investment Advisory *as Treasurer Designate*
2015	Journals Business Management Committee *as Treasurer Designate*
2015	Medical Physics Editorial Board *as Treasurer Designate*
2015	Meeting Coordination *as Treasurer Designate*
2015	Strategic Planning Committee of the Board *as Treasurer Designate*
2015	Member of Electronic Media Coordinating *as Treasurer*
2016-2020	TG285 - Task Group on AAPM Association Management System
2014-2020	Work Group on Implementation of Cooperative Agreements between the American

Association of Physicists in Medicine and other National and International Medical Physics Organizations

2016-2021 Treasurer
2016-2021 Member of Board of Directors *as Treasurer*
2016-2021 Member of Electronic Media Coordinating *as Treasurer*
2016-2021 Member of Executive Committee *as Treasurer*
2016-2019 Ad Hoc Headquarters Site Visit Committee
2016-2021 Administrative Council
2016-2021 Board of Directors
2016-2021 Development
2016-2021 Executive Committee
2016-2021 Finance Committee
2016-2020 International Educational Activities Committee
2016-2021 Professional Council
2016-2021 Education Council
2016-2021 Science Council
2017-2020 International Training and Research Coordination Subcommittee
2016-2021 Investment Advisory
2016-2021 Journals Business Management Committee
2016-2021 Medical Physics Editorial Board
2016-2021 Meeting Coordination
2016-2021 Strategic Planning Committee of the Board
2016-2021 Guest Member of International Council
2016-2021 **Chair**, Ad Hoc Committee to Negotiate Renewal of Wiley Contrast 2021
2016-2021 International Council
2021-present Member, Cardiology Fellow Physics Curriculum Working Group

American College of Radiology (ACR)

2002 – 2012 Member, Committee on Government Relations (Medical Physics)
2002 – 2012 Guidelines and Standards Committee (Medical Physics)
2003 – 2007 Member, Committee on Human Resources (Nuclear Medicine)
2003 – 2009 Member, Subcommittee on Mammography Physics (Quality and Safety)
2004 – 2010 Member, Committee on Residency Training in Diagnostic Rad. (Education)
2004 – 2013 **Chair,** Panel on Physics – DXIT: In-Training Examination for Diagnostic Radiology Residents
2006 – 2012 Member, Committee on Economics (Medical Physics)
2006 – 2018 **Member,** Commission on Medical Physics
2007 – 2009 **Councilor-at-Large**, Medical Physics
2007 – 2011 Member, Editorial Board - Journal of American College of Radiology (JACR)
2007 – present **Editor**, Technology Talk and Physics Consult (Diagnostic Topics) for JACR
2008 – 2012 **Chair**, Committee on Government Relations (Medical Physics)
2008 – 2012 Member, Commission on Government Relations
2008 – 2012 Member, Task Force of Radiation Risk Primer
2010 – 2012 **Councilor-at-Large**, Medical Physics
2010 – 2012 **Member, Council Steering Committee**
2010 – present **Member,** RSNA-ACR Public Information Website Committee (http://www.radiologyinfo.org/en/about/index.cfm?pg=abt_cmte)
2011 – 2013 **Member,** ACR Member Communications Committee
2011 – present **Associate Editor** – Physics, Journal of American College of Radiology
2012 – 2015 **Chair,** Committee on Education – Medical Physics
2012 – 2015 **Guest Editor**, JACR Radiation Dose Optimization in Computed Tomography – *An online resource center for Radiologists* (http://doseoptimization.jacr.org)

2012 – 2015 Member, Subcommittee for RSO Resources
2013 – 2019 Member, Committee on Skills Assessment – Education
2014 – present Abstract Reviewer for ACR all member meeting
2015 – 2018 **Councilor-at-Large**, Medical Physics
2018 – present **Chair** – Commission on Medical Physics
2018 – present **Member – ACR Board of Chancellors** as Chair of Commission on Medical Physics
2018 – present **Member** – **ACR Data Science Institute** Advisory Group
2018 – 2020 Member – Committee on Fellowship Credentials
2018 – present Member – Commission on Publications and Lifelong Learning
2021 – present Member – Budget Finance Committee
2021 – present Member - Investment Subcommittee
2021 – present Member – PIER Steering Workgroup
2022 – present Member – ACR Centennial Committee (2023-24)

Maryland Radiological Society (MRS)

2012 – present Executive board member
2015 – 2017 Vice-President
2017 – 2019 President
2019 – 2021 Immediate Past President
2021 – Present Nomination Committee

Radiological Society of North America (RSNA)

2004 - 2008 Member, Associated Sciences Committee
2005 - 2010 Physics Subcommittee of Scientific Program Committee
2007 - 2012 Co-editor, RSNA-AAPM Physics Modules (http://www.rsna.org/education/PhysicsModules%20acknowledgement%20page.pdf)
2007 - 2014 Member, Task Force of RSNA-AAPM Physics Modules
2011 - 2012 **2nd Vice-President,** Radiological Society of North America
2011 - 2017 **Member**, Committee on International Relations and Education (CIRE)
2011 - 2016 **Chair** – Physics Panel – RadioGraphics
2011 – 2019 Member, Physics Panel - RadioGraphics

American Roentgen Ray Society (ARRS)

2012 – present Member
2012 - 2019 Member, Imaging Communication Network

American Institute of Physics

2016-2021 Liaison Committee of Society Treasurers

Health Physics Society

2005 – present Member
2008-2009 President Elect, Medical Health Physics Section
2009-2010 **President**, Medical Health Physics Section

Society of Cardiovascular Computed Tomography (SCCT)

2009-2012 Member, Radiation Committee
2009-2012 Member, Membership Committee
2010-2011 Member, Working group on Radiation Guidelines
2010-2013 Member, Annual Scientific Program Planning Committee
2010-2013 Member, Basic Sciences Working Group
2010-present Member, Abstract Grading Committee

2013-present Member, Young Investigator Award Committee
2013-2020 Member, Accreditation and Certification Committee
2013-present Member, Guidelines Committee
2015-2018 Board Member, SCCT Governance
2020-present Member, Working group on Radiation Guidelines

American Heart Association (AHA)

2010-2014 Member, Writing Committee – Enhancing radiation safety in cardiac imaging (Report published in Circulation in 2014)

Certification Board of Cardiovascular Computed Tomography (CBCCT)

2010-2011 Member, 2011 Exam Development Committee
2010-2011 Co-chair, Section on Radiation and Radiation Safety

Mid-Atlantic Chapter of AAPM (MACAAPM)

1998-1999 Secretary/Treasurer
2000-2008 Chairman, Membership Committee
2000 President-Elect
2001 **President**
2004-2006 Board Member/Chapter Representative

American College of Medical Physics (ACMP)

2005-2008 **Chair,** Diagnostic Program for Annual Meeting
2005-2009 Member, Diagnostic Standards Committee
2007-2009 Member, Annual Meeting Program Committee

Conference of Radiation Control Program Directors (CRCPD)

2006-present Physicist Member, H-4, Committee on Nationwide Evaluation of X-ray Trends (NEXT)
2010-2019 Member, Radiation Protection Advisory Panel
2010-2019 Member, H-39, Committee on CT perfusion

Society of Cardiovascular Angiography and Intervention (SCAI)

2006-2009 Physics committee member

Others

2000-2002 **Member**, Dosimetry Protocol Steering Committee, Society of Cardiovascular and Interventional Radiology (SCVIR)
2002-present **Member,** Radiation Control Advisory Board, State of Maryland, MD
2003-2005 **Member,** CT ALARA Medical Advisory Board for GE Medical Systems, Waukesha, WI
2006-2008 **Vice President**, Indo-American Society of Medical Physicists
2009-2010 **President**, Indo-American Society of Medical Physicists
2011-2012 **Chairman of the Board**, Indo-American Society of Medical Physicists

Conference Organizer, Session Chair

9/01 Course Director and Speaker for the CME course "*Technical Aspects and Clinical Considerations of Imaging for the Radiation Therapy Physicist*," Baltimore, MD
11/01 Course Director and Speaker for AAPM/RSNA Physics Tutorial for Residents: *Topics in CT*, Chicago, IL
7/02 Chair and Speaker for Continuing Education Course on CT Physics. 44th annual meeting of AAPM, Title: *Fundamentals of Single and Multiple-row Detectors CT,* Montreal, Quebec, Canada
7/02 Chair and Moderator for Symposium on *CT Dose Reduction Method*. 44th annual meeting of AAPM, Montreal, Quebec, Canada

9/03 Course Director and Speaker for the CME course *"Breast Imaging Physics Symposium*," Baltimore, MD

11/03 Course Director and Speaker for AAPM/RSNA Physics Tutorial for Residents: *Digital Mammography*, Chicago, IL

11/04 Course Director at AAPM/RSNA Physics Tutorial for Residents: *Physics of Cardiac Imaging with MDCT*, RSNA Meeting, Chicago, IL

7/05 Course Director and Faculty for "*Fluoroscopy Credentialing Course*" at Bon Secours Hospital, Baltimore, MD

11/05 Course Director and Faculty for "*Fluoroscopy Credentialing Course*," Johns Hopkins University School of Medicine, Baltimore, MD

12/05 Course Director and Faculty for "*Fluoroscopy Credentialing Course*," Johns Hopkins University School of Medicine, Baltimore

11/05 Course Director at AAPM/RSNA Physics Tutorial for Residents: *Physics of Cardiac Imaging with MDCT*, RSNA Meeting, Chicago, IL

7/06 Course Co-Director and Faculty for *Advances in Diagnostic Medical Physics*, an international symposium organized under AAPM International Scientific Exchange Programs, New-Delhi, India

11/06 Course Director at AAPM/RSNA Physics Tutorial for Residents: Dual-modality Imaging Physics, RSNA Meeting, Chicago, IL

2007 Course Director for "Practicum on Physics Principles of Cardiac Imaging with MDCT – What the Cardiologists/Radiologists needs to know?" Johns Hopkins University School of Medicine, Baltimore, MD.

11/08 Course Director at AAPM/RSNA Physics Tutorial for Residents: Radiation Doses in Medical X-ray Imaging, RSNA Meeting, Chicago, IL

11/09 Course Co-Director and Faculty for AAPM-ISEP Diagnostic Workshop, an international symposium organized under AAPM International Scientific Exchange Programs, Ankara, Turkey

11/09 Course Director at AAPM/RSNA Physics Tutorial for Residents: Physics of Flat-Panel Fluoroscopy, RSNA Meeting, Chicago, IL

11/10 Course Director at AAPM/RSNA Physics Tutorial for Residents: Communication of Radiation Dose, Risk and Benefits in Medical X-ray Imaging, RSNA Meeting, Chicago, IL

6/11 Course Co-Director and Faculty for AAPM-ISEP Diagnostic Workshop, an international symposium organized under AAPM International Scientific Exchange Programs, Patras, Greece

7/11 SAM Course organizer on Imaging Dosimetry and Invited Speaker for the 2011 Joint AAPM/COMP Meeting, Vancouver, British Columbia, Canada.

11/11 97th RSNA Scientific Assembly and Annual Meeting. Director of Refresher Mini-Course – Patient and Staff Safety with Focus on Radiation Dose Reduction., Chicago, Illinois.

10/12 Course Co-Director and Faculty for AAPM-ISEP Diagnostic Workshop, an international symposium organized under AAPM International Scientific Exchange Programs, Buenos Aires, Argentina.

12/13 99th RSNA Scientific Assembly and Annual Meeting. Director of SAM Mini-Course – Current Topics in Medical Physics – Radiation Dose Reduction in Medical Imaging. CT Chicago, Illinois.

7/14 Co-chair and Moderator for Educational Workshop on Education of Radiotherapy Physicists. 56th annual meeting of AAPM, Austin, TX

7/14 Chair and Speaker for SAM's course on Radiation Dose Reducing Strategies in Radiography, Fluoroscopy and CT. 56th annual meeting of AAPM, Austin, TX

12/14 100th RSNA Scientific Assembly and Annual Meeting. Director of SAM Mini-Course – Current Topics in Medical Physics – Radiation Dose Reduction in Medical Imaging. CT Chicago, Illinois.

12/15 101st RSNA Scientific Assembly and Annual Meeting. Director of SAM Course – Near Misses and Errors in Diagnostic Radiology and Radiation Oncology

7/17 62nd Annual Scientific Meeting of Canadian Organization of Medical Physics (COMP) –MRI and Diagnostic Imaging Session Chair & Moderator

6/18 Organizer of AAPM-IOMP Sessions, Chair of five sessions and Speaker at the World Congress on Medical Physics & Biomedical Engineering, Prague, CZ.

Other Organizational Activities

1/89	Bone Interest Group Symposium, Medical College of Wisconsin
3/90	Second Annual Bone Interest Group Symposium, Medical College of Wisconsin
1992-1993	Medical Physics Journal Club, Medical College of Wisconsin
2/93	First Annual Graduate Student Research Forum, Medical College of Wisconsin
3/99	Spring Lecture Meeting for Mid-Atlantic Chapter of AAPM at Johns Hopkins University, Baltimore, MD
4/00	Annual Mid-Atlantic Chapter of AAPM "All-Day" meeting at AAPM Headquarters, College Park, MD
3/01	Spring Lecture Meeting for Mid-Atlantic Chapter of AAPM at Medical College of Virginia, Richmond, VA
6/01	President, Annual Mid-Atlantic Chapter of AAPM "All-Day" meeting at AAPM Headquarters, College Park, MD
9/01	Organized the first CME workshop at Johns Hopkins University, entitled "*Technical Aspects and Clinical Considerations of Imaging for the Radiation Therapy Physicist*," Baltimore, MD
9/03	Organized the second CME course at Johns Hopkins University, entitled "*Breast Imaging Physics Symposium*," Baltimore, MD
11/05	Organized the CME course at Johns Hopkins University, entitled "*Fluoroscopy Credentialing Course*," Baltimore, MD
7/06	Organized the International Symposium on *Advances in Diagnostic Medical Physics*, in New Delhi, India
5/08	Organized diagnostic program for the American College of Medical Physics, Baltimore, MD.
5/08	Organized diagnostic program for the American College of Medical Physics, Seattle, WA.
10/09	Organized the International Workshop on Current Topics in Diagnostic Medical Physics, in Ankara, Turkey
6/11	Organized the AAPM-ISEP Diagnostic Medical Physics Workshop, Patras, Greece
10/12	Organized the AAPM/ISEP Diagnostic Medical Physics Workshop, in Buenos-Aires, Argentina
5/15	Organizer of SAM session and moderator of Physics track at the ACR 2015 The Crossroads of Radiology meeting, Washington DC. Moderator & Faculty of SAMs session – "Radiation dose optimization strategies in medical imaging with focus on CT" Moderator – "Radiation in Medical Imaging: Impact of Regulation and Social Media"
12/15	Organizer of SAM session and moderator of Near Misses and Errors in Diagnostic Radiology and Radiation Oncology at 101st RSNA meeting, Chicago IL
2007-2015	Journal Club (Weekly) Faculty advisor to Division of Medical Imaging Physics Journal Club

Consultantships

2005 – present	**Consultant as Subject-Matter-Expert** for United Nations International Atomic Energy Agency (IAEA)
2015 - present	National contact person for United States at the United Nations Scientific Committee on the Effects of Atomic Radiation **(UNSCEAR)**

RECOGNITION *(in chronological order, earliest first by start date under each subcategory)*

Awards, Honors

1984-1986	National Merit Scholarship, University of Mysore, India
1987-1988	Teaching and Research Assistantship, Marquette University
1988	Inducted to Sigma Pi Sigma – Physics Honor Society
1988-1989	Graduate Research Fellowship, Medical College of Wisconsin
1992	Travel Award Recipient, Student Affairs Committee, Medical College of Wisconsin
1992	Travel Award Recipient, Friends of the Medical College of Wisconsin
1989-1993	Charles Lescrenier Fellowship, Gammex Inc., Milwaukee, WI

1993 Travel Award Recipient, Student Affairs Committee, Medical College of Wisconsin
1993 Travel Award Recipient, Friends of the Medical College of Wisconsin
1999-present Life Membership, National Registry of Who's Who
2002 Travel grant to attend International Conference on Medical Physics, Havana, Cuba, Grant from US National Academy's National Research Council through The American Physical Society, College Park, MD
2002 Appointed member of Radiation Control Advisory Board for the State of Maryland
2007 **Fellow** of the American Association of Physicists in Medicine
2008-present Invited as Physics Oral Board Examiner by the American Board of Radiology
2009 **Fellow** of the American College of Radiology
2009 Visiting Scientist, University of Ankara, Ankara, Turkey (Oct 2009)
2010 Visiting Professor, University of Wisconsin Madison, Madison, Wisconsin (April 26-27, 2010)
2010 Appointed to American College of Radiology – Council Steering Committee (2 year term)
2011 **Fellow** of the American College of Medical Physics (ACMP)
2011 **Fellow** of the Society of Cardiovascular Computed Tomography (SCCT)
2012 **2nd Vice-President of Radiological Society of North America**
https://www.rsna.org/about/past-leadership
2012 **Distinguished Medical Physicist Award**, Indo-American Society of Medical Physicists
2014 Visiting Professor, University of Rochester, Rochester, New York (October 30th, 2014)
2015 Elected to National Council of Radiation Protection and Measurements (NCRP) Council (6 year term)
2015 Volunteer Service Award for 2014, American Board of Radiology, Tucson, AZ
2015 Visiting Professor, University of Vermont, Burlington, Vermont (May 1st, 2015)
2015 **Elected as Treasurer to the American Association of Physicists in Medicine (3-year term 2016**)
2016 Visiting Professor, University of Arkansas Medical Sciences, Little Rock, AK (Nov 7-8, 2016)
2017 Elected as Secretary of Faculty Senate in the Johns Hopkins University School of Medicine
2018 **Elected as Chair of Commission on Medical Physics** (1st contested election) – American College of Radiology Board of Chancellors
2019 **Elected as Chair of Faculty Senate in the Johns Hopkins University School of Medicine**
2019 Visiting Professor, University of Maryland Mid-Town Campus, Baltimore, MD
2020 Visiting Professor, Distinguished Seminar Speaker, Duke Medical Physics Program, Duke University, Durham, NC (March 4-5, 2020)
2020 Appointed to the Johns Hopkins University – University Pandemic Academic Advisory Committee (UPAAC)
2021 Grand Rounds Speaker, Memorial Sloan Kettering Cancer Center (MSKCC), New York, NY

INVITED TALKS

International Meetings

DATE	TITLE	LOCATION	TALKS
May-97	Sri Jaya Chamarajendra Engineering College	Mysore, India	Radiation: Why do we care so much about it?
May-97	Academic Council, JSS Medical College	Mysore, India	Radiation Exposure Measurements in Clinical Environment
Apr-02	International Conference on Medical Physics	Havana, Cuba	a. Single and Multislice CT and other technological advances b. CT principles and quality control
Jul-02	44th Annual Meeting of American Association of Physicists in Medicine	Montreal, Canada	CT dose reduction – Symposium moderator Fundamentals of single and multiple row detector computed tomography
Nov-02	AAPM-ISEP Diagnostic Medical Physics Workshop	Sao Paulo, Brasil	a. Principles: Conventional to Multislice; system design, evolution, image reconstruction, new trends. b. Fluoroscopy in cardiovascular and interventional radiology c. Practical aspect of fluoroscopy/interventional dose measurement d. Methods of exposure reduction in interventional and cardiac fluoroscopy e. Quality assurance in interventional and cardiac fluoroscopy
Dec-03	University of Mysore	Mysore, India	Medical Imaging Physics
Jan-04	JSS Women's College,	Mysore, India	Breast Cancer and Imaging
Jul-06	International Symposium on Advances in Diagnostic Medical Physics	New Delhi, India	a. CT Principles: Conventional to Multidetector b. Mammography: Digital Mammography c. Multiple-row detector CT with emphasis on Cardiac Imaging – CT Part 2 d. Quality assurance in general radiology and CT
Dec-06	IAEA Regional Meeting on Radiation Protection in Cardiology	Bangkok, Thailand	a. Angiography Equipment b. Occupational Exposures and Protective Devices c. Impact of Optimization in Newer Technologies d. Cardiac CT doses

Sep-07	Mammography Accreditation Course organized by the Turkish Radiological Society	Ankara, Turkey	a. Mammography Physics b. Digital Mammography c. MQSA Regulation d. Digital Mammography and Digital Tomosynthesis e. Role of Physicists in Mammography f. Role of Technologists in Mammography g. Mammography Quality Control
May-08	International Symposium on Advances in Diagnostic Imaging Physics	Algiers, Algeria	a. Image formation in Diagnostic Imaging: an Overview b. CT Principles: Conventional to Multidetector c. Digital Mammography d. Radiation Dose Management in CT and Radiography e. Fluoroscopy in Cardiovascular and Interventional Radiology
Oct-09	International Symposium on Current Topics in Diagnostic Medical Physics	Ankara, Turkey	a. MDCT – Part I b. MDCT – Part II c. Minimizing Risks from Fluoroscopy d. Digital Mammography
Jun-11	AAPM-ISEP Diagnostic Medical Physics Workshop	Patras, Greece	a. Magnitude of Radiation Dose and Trends in Medical Imaging b. Multiple-row Detector Computed Tomography (MDCT) Technology c. Radiation Dose Reduction Strategies in MDCT d. Digital Mammography
Jul-11	Joint AAPM/COMP Meeting	Vancouver, British Columbia, Canada	a. Dosimetry in Pregnant Patients undergoing CT and Fluoroscopy b. Dose Reduction Strategies in CT c. Education Resources – AAPM/RSNA Physics Tutorials and JACR Physics Columns
Oct-12	AAPM-ISEP Diagnostic Medical Physics Workshop	Buenos Aires, Argentina	a. Radiation Doses in Medical Imaging and Trends b. Fundamentals of Computed Tomography c. CT dose and dose reduction strategies d. Minimizing risks from fluoroscopy

Jun-14	AAPM-ISEP Radiation Therapy Physics Workshop	Tallinn, Estonia	a. QC of CT, MR and PET-CT scanners for Radiation Therapy b. Commissioning and QA of Imaging Equipment in Radiation Therapy c. Management of Imaging Dose during Image Guided Radiation Therapy
Mar-15	European Congress of Radiology (ECR)	Vienna, Austria	Radiation Protection
May - 16	ICTP-IAEA Workshop on Computed Tomography-Quality Control, Dosimetry and Optimization	Trieste, Italy	a. CT Technology: An Overview b. CT Image Quality c. Cardiac CT d. Dual Energy CT and CT Perfusion e. CT Equipment Selection f. Medical Physics Resources
Sept-16	1st European Congress of Medical Physics organized by European Federation of Medical Physics	Athens, Greece	Radiation Incidents and Accidents in CT: What to do next?
Feb-17	2017 Radiation in Medicine Symposium and Workshop	Riyadh, Saudi Arabia	a. Diagnostic Reference Levels: Applications and Limitations b. International DRL Initiatives/Status c. Radiation Dose Tracking and Auditing: How to do effectively and fiscally? d. Latest Advances in CT Technology: Hardware and Software e. Dual energy CT and it's Clinical Applications f. Cardiac Imaging in CT g. CT Protocol Optimization Process-Johns Hopkins Experience h. Introduction to ACR Accreditation Process i. CT QC Lab Practical
Mar - 17	Invited Speaker at European College of Radiology (ECR) 2017 meeting	Vienna, Austria	a. Radiation Protection b. Radiation Incidents and Accidents in CT
Mar - 17	UN-IAEA Technical Meeting on Preventing Unintended and Accidental Medical Exposures in Radiology	Vienna, Austria	a. Overexposures in Computed Tomography b. Determination of dose/degree of hazards in CT procedures
Nov – 17	17th Asian Oceanic Conference on Medical Physics and 38th AMPICON conference	Jaipur, India	a. Physics and Basic Technology of CT

Dec – 17	UN-IAEA International Conference on Radiation Protection in Medicine	Vienna, Austria	b. UNSCEAR's global surveys on radiation exposure – report from United States as National Contact Person for US c. How are we fostering and improving the radiation benefit/risk dialogue? d. Moderator of Facebook Live stream on radiation benefit/risk dialogue
Mar – 18	Invited Speaker and Moderator at European Congress of Radiology (ECR)	Vienna, Austria	The ACR Dose Index Registry (DIR): Setting a Benchmark (presented remotely)
Jun – 18	World Congress on Medical Physics & Biomedical Engineering	Prague, Czech	4 Talks and Chaired 5 sessions a. Dose Optimization Strategies b. Protecting pregnant workers in interventional radiology c. Flat panel detector fluoroscopy d. Dual energy CT – Advantages and Limitations
Aug – 18	European Congress on Medical Physics	Copenhagen, Denmark	a. Why is Dual Energy CT (DECT) not used widely?
Sep – 18	Radiation Protection in CT Conference	Rio de Janeiro, Brazil	a. CT Technology- An Overview b. Scan Parameters Affecting CT Images c. Physics Aspects of PET-CT and SPECT-CT d. Fundamentals of CT Dosimetry e. CT Dose Optimization Strategies f. Radiation Protection in CT g. CBCT and CBCT Dosimetry h. Cardiac CT Principles and Radiation Dose i. CT Fluoroscopy j. DECT and Photon Counting CT k. CT Image Quality l. CT Artifacts – Physics based artifacts m. CT in Radiation Therapy n. Diagnostic Reference Levels o. CT Dose Check
Feb – 19	IAEA Regional Training Course	Lusaka, Zambia	a. DICOM Header in CT b. Image Quality-Scan Parameters-Artifacts c. Cardiac CT Physics d. DECT-Perfusion CT e. Medical Physics Resources
June -19	International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS 2019)	Vienna, Austria	a. DICOM-Based Dose Reporting b. CT Dosimetry

Aug – 19	50th Brazilian Congress of Medical Physics	Santos, Brazil	a. Advanced CT Imaging – Cardiac CT, DECT and Perfusion CT b. Digital Images Metrics – Practical use in Quality Assurance c. Managing Patient Doses in Pediatric Imaging d. DICOM based dose reporting
Sept -19	24th International Conference on Medical Physics, 8th Latin American Congress of Medical Physics & 2nd Chilean congress of Medical Physics	Santiago, Chile	Chaired 2 sessions and gave 3 talks a. DICOM based dose reporting b. ACR accreditation – an overview c. How to promote the roll of medical physicists in diagnostic radiology d. Advanced CT Imaging – Cardiac CT, DECT and Perfusion CT
May – 20	International Organization of Medical Physics (IOMP) – International Medical Physics Day	Virtual Meeting	CT Scan Parameters and Radiation Dose (>600 participants from around the globe) http://ow.ly/6xga50FS8NT
May – 20	ABFM-Brazilian Association of Medical Physics	Virtual Meeting	CT Imaging in Radiation Therapy Planning: Focus on CT in PET-CT
Oct – 20	Brazilian Congress of Radiology (CBR20) Virtual Meeting	Virtual Meeting Brazil	State of the art in dose monitoring in CT and the impacts on optimization programs
Nov - 20	Virtual Symposia on 125th anniversary of discovery of x-rays	Virtual Meeting Jaipur, India	Impact of discovery of x-rays on practice of Medical Physics
Nov – 20	Association of Medical Physicists of India celebration of International Day of Medical Physics	Virtual Meeting Jaipur, India	CT Dosimetry and Optimization
Dec – 20	20th Asian Oceanic Conference on Medical Physics (AOCMP)	Virtual Meeting Thailand	a. Spectral CT b. Role of Medical Physicists in the Clinic during COVID-19 Pandemic
Mar-21	European College of Radiology (ECR)	Virtual Meeting Vienna, AT	a. Medical Radiation Exposure of Patients in the United States: Methodology, Data Sources and Results b. Past to Present: How advances in CT technology impacted radiation dose?
Oct -21	50th Brazilian Congress of Radiology and Imaging Diagnosis	Virtual Meeting (Sao Paulo, BZ)	a. CT Dose: The Pregnant Patient: Alternatives to CT and Modifications for dose adequacy in CT technique b. Iterative reconstruction in CT: What does it do? How can I use it?
Jan – 22	Association of Medical Physics of India-North Central Chapter	Virtual Meeting	a. Overview of CT Technology, Image Quality, Dose, and its Optimization

Feb – 22	7th International Conference on Radiation Medicine	Virtual Meeting (Riyadh, Saudi Arabia)	a. Photon Counting CT: Technical Principles and Clinical Prospects

National Meetings

DATE	TITLE	LOCATION	TALKS
Nov-99	AAPM/RSNA Physics Tutorial for Residents. 85th Scientific Assembly and Annual Meeting of Radiological Society of North America	Chicago, IL.	Fluoroscopy Exposure and Radiation Safety
May-00	Workshop on Physics in Mammography	Washington, DC	The Role of Physicist in a Mammography Program
Sep-01	1st Johns Hopkins Medical Physics workshop - Technical Aspects and Clinical Considerations of Imaging for the Radiation Therapy Physicist	Baltimore, MD.	CT Principles: Conventional to Multislice,
Nov-01	Radiological Society of North America	Chicago, IL	CT Principles: Conventional to Multislice
Jun-02	4th International Symposium on Multidetector-Row CT	San Francisco, CA	Fundamentals of multiple row detector computed tomography
Aug-03	45th Annual meeting of American Association of Physicists in Medicine	San Diego, CA	Recent Advances in CT
Sep-03	2nd Johns Hopkins Medical Physics workshop - Breast Imaging Physics Symposium	Baltimore, MD	a. Migrating toward Digital Mammography b. Digital Mammography
Nov-03	AAPM/RSNA Physics Tutorial for Residents. 89th Assembly and Annual Meeting of Radiological Society of North America	Chicago, IL	Digital Mammography
Apr-04	Spring Symposium organized by Delaware Valley Chapter of AAPM	Philadelphia, PA	Multidetector CT
Jul-04	AAPM Diagnostic Physics Review Course	Pittsburgh, PA	CT Technology and Dosimetry
Jul-04	46th Annual Meeting of the American Association of Physicists in Medicine	Pittsburgh, PA	Recent advances in MDCT
Oct-05	Cardiac CT: Progress and Potential with Interactive Demonstrations	Baltimore, MD	Physics of Cardiac Imaging with MDCT

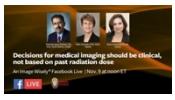
Nov-05	AAPM/RSNA Physics Tutorial for Residents. 91st Scientific Assembly and Annual Meeting of Radiological Society of North America	Chicago, IL	Physics of Cardiac Imaging with MDCT (Moderator and Speaker)
May-06	Judkin's Cardiac Imaging Symposium at *Society of Cardiovascular Angiography and Interventions*	Chicago, IL	Understanding the Black Box: Cardiovascular CT Imaging
Oct-06	Mid-Atlantic States Radiation Control Programs Meeting	Mendenhall, PA	a. Digital Mammography b. Radiation doses in MDCT
Oct-06	Cardiac CT: Progress and Potential with Interactive Demonstrations	Baltimore, MD	Physics of Cardiac Imaging with MDCT
Nov-06	Joint meeting of local chapters of Health Physics Society and Mid-Atlantic Chapter of AAPM	Baltimore, MD	CT Choices for PET/CT and SPECT/CT
Mar-07	Spring Symposium organized by Delaware Valley Chapter of AAPM	Abington, PA	Multiple-row detector CT
May-07	25th Annual Meeting of American College of Medical Physics	Baltimore, MD	a. Multi-slice CT scanners: A review of the state-of-the-art b. Primer on Cardiac CT Imaging
Jun-07	North East Chapter of AAPM	Providence, RI	Multidetector CT – A review of the state-of-the-art
Jul-07	49th Annual Meeting of American Association of Physicists in Medicine	Minneapolis, MN	Magnitude of medical radiation exposures to the US population: Preliminary results from NCRP scientific committee 6-2
Oct-07	Meeting of Mid-Atlantic State Radiation Control Programs	Lambertsville, NJ	Magnitude of Medical Radiation Exposures to the US population: Preliminary Results from NCRP Scientific Committee 6-2
Nov-07	Advisory Council on Radiation Protection	Tampa, FL	Increased radiation exposure to the public from medical sources
Jan-08	Winter Meeting of American Association of Physics Teacher	Baltimore, MD	Medical Physics: Education and Careers
Mar-08	Judkin's Cardiac Imaging Symposium at *Society of Cardiovascular Angiography and Interventions*	Chicago, IL	Formation of Cardiac CT Image
Apr-08	Annual Meeting of American Roentgen Ray Society	Washington, DC	Direct Measurement of Patient Radiation Exposure with 64 Slice Multi-Detector CT
May-08	Radiology Grand Rounds, Baptist Health South Florida	Miami, Florida	What Every Clinician Needs to Know About Radiation Exposure?

Jul-08	50th Annual Meeting of the American Association of Physicists in Medicine	Houston, TX	Magnitude of Medical Radiation Exposures to the US Population with a focus on CT and Nuclear Medicine Doses
Oct-08	Millersville University	Millersville, PA	Medical Physics: Education and Careers
Nov-08	US FDA, Center for Devices and Radiological Health, Medical Device Fellowship Program	Rockville, MD	Magnitude of Medical Radiation Exposures to the US population
Nov-08	AAPM/RSNA Physics Tutorial for Residents. 94th Scientific Assembly and Annual Meeting of Radiological Society of North America	Chicago, IL	Magnitude of Radiation Doses in Medical Imaging (Moderator and Speaker)
Jan-09	Provided Testimonials to The President's Cancer Panel	Phoenix, AZ	Medical Radiation Exposure with Focus on CT
Mar-09	Radiology Department Seminar, Duke University	Durham, NC	Magnitude of Radiation Exposure to the US Population with Focus on CT
Jul-09	4th Annual Meeting of Society of Cardiovascular Computed Tomography	Orlando, FL	a. A Primer of Radiation Dose and Exposure b. Hazards of Ionizing Radiation for Non-Einsteins c. The Physics of Image Generation and Radiation
Jul-09	51st Annual Meeting of the American Association of Physicists in Medicine	Anaheim, CA	Magnitude of Radiation Exposure to the US Population with a focus on CT
Sep-09	NCRP organized meeting titled – 'CT in Emergency Medicine-Ensuring Appropriate Use'	Washington DC	CT Basic Physics, Equipment Operations and Dose Optimization
Nov-09	AAPM/RSNA Physics Tutorial for Residents. 95th Scientific Assembly and Annual Meeting of Radiological Society of	Chicago, IL	Physics of Flat-Panel Fluoroscopy (Moderator)
Mar-10	FDA Meeting on Radiation Reducing Initiatives (invited to testify)	Gaithersburg, MD	CT, User Training and Quality Assurance
Apr-10	Medical Physics Department Seminar, University of Wisconsin Madison	Madison, WI	Magnitude of Medical Radiation Exposures to the US population with focus on CT
Jul-10	52nd Annual Meeting of the American Association of Physicists in Medicine	Philadelphia, PA	New Technologies for Image Quality Improvement and Dose Reduction in CT
Sep-10	AAPM Ohio River Valley Chapter – The Jian Z. Wang Honorary Symposium	Bloomington, IN	CT Doses – Increased scrutiny by media and policy-makers and upcoming initiatives

Nov-10	AAPM/RSNA Physics Tutorial for Residents. RSNA 96th Scientific Assembly and Annual Meeting	Chicago, IL	Communicating Radiation Dose, Risks, and Benefits in Medical X-Ray Imaging
Mar-11	ALARA-CT organized by Society of Pediatric Radiology	Dallas, TX	Advances in CT Technology and Application to Pediatric Imaging
Apr-11	Annual Meeting of Society of Atherosclerosis Imaging and Prevention	Bethesda, MD	Controversies in Atherosclerosis Imaging: Radiation Exposure Invisible Problem or Disappearing Issue? – Invisible Problem
Jun-11	Joint NASA-NCI Workshop	Rockville, MD	National Lung Screening Trial – Physics Working Group Report on Radiation Dose and Quality Assurance
Jul-11	6th Annual Meeting of Society of Cardiovascular Computed Tomography	Denver, CO	a. Radiation Monitoring: The Role of Technologists b. Upcoming regulations and policies on radiation: How will this affect your Cardiac CT program? c. What you need to know about radiation
Sep-11	1stAnnual International Symposium on Radiation Safety in CT, Massachusetts	Boston, MA	a. Automatic Dose Modulation. b. Understanding Dose Display in CT
Nov-11	RSNA 97th Scientific Assembly and Annual Meeting	Chicago, IL	a. Communicating Radiation Dose and Perceived Risks b. Dose Reduction Strategies in CT
Jul-12	7th annual meeting of Society of Cardiovascular Computed Tomography meeting	Baltimore, MD	a. Current CT radiation dose is NOT a public health hazard – Against the Proportion b. Novel technological developments that enable radiation dose reduction
Jul-12	54th Annual Meeting of American Association of Physicists in Medicine	Charlotte, NC	Fluoroscopy Training and Compliance – Experience of a Large Academic Institution.
Mar-13	Advances in Nuclear Medicine Molecular Imaging and Therapy	Baltimore, MD	Optimizing Radiation Dosimetry with CT
Apr-13	Annual Meeting of American Roentgen Ray Society	Washington, DC	a. What do Physicists Wish for Radiologists to Know about Radiation Dose? **Keynote Speaker** **b.** Pediatric CT Dose: Why should we be concerned and what can we do to lower dose? **Keynote Speaker**
Apr-13	Annual Meeting of American Osteopathic College of Radiology	Fort Lauderdale, FL	a. Strategic CT Radiation Dose: Preparing for the future, Invited Speaker b. Preparing for Upcoming Radiation Regulations, Invited Speaker
Sep-13	Johns Hopkins Neuroradiology Review	Long Beach, NY	CT Dose: Why should we be concerned and what can we do to lower dose?

Dec-13	RSNA 99th Scientific Assembly and Annual Meeting	Chicago, IL.	a. Computed Tomography Perspective Refresher Course Medical Physics 2.0 b. CT Dose Reduction and Clinical Management. SAM course
Jul-14	56th Annual Meeting of American Association of Physicists in Medicine	Austin, TX.	a. Radiation Dose Optimization Strategies in CT b. What imaging aspects should a radiotherapy physicist know today? c. What does Medical Physics 2.0 means to me?
Oct-14	Society of Pediatric Radiology Advances in Pediatric Neuroradiology	Miami Beach, FL	Update on Radiation Safety and Dose Reduction in Pediatric Neuroradiology
Oct-14	Visiting Professor to Department of Radiology, University of Rochester Medical Center	Rochester, NY	a. Radiation Dose in CT b. CT Dose Optimization Strategies
Oct-14	Rochester Roentgen Ray Society	Rochester, NY	Why should we be concerned and what can we do to lower radiation dose in medical imaging?
Dec-14	RSNA 100th Scientific Assembly and Annual Meeting	Chicago, IL.	a. Computed Tomography Perspective Refresher Course Medical Physics 2.0 b. CT Dose Reduction and Clinical
May-15	Visiting Professor to Department of Radiology, University of Vermont	Burlington, VT	a. Radiation Dose in CT b. Changing Landscape: Radiation– Regulations – Reimbursements (Grand Rounds)
May-15	Annual Meeting & Chapter Leadership Conference of American College of Radiology	Washington, DC	Radiation dose optimization strategies in medical imaging with focus on CT (Moderator) & Speaker)
Jun-15	Bracco Symposium hosted by Applied Radiology	New York City, NY	The Science behind Radiation Dose Optimization Techniques
Dec-15	RSNA 101st Scientific Assembly and Annual Meeting	Chicago, IL.	a. Radiation Incidents in Diagnostic Radiology: What does the physicist do next? b. Educational Initiatives in the United States at the International Forum on Radiation Safety Education around the World c. Computed Tomography Perspective, Refresher Course Medical Physics 2.0 d. Computed Tomography 1.0. Refresher Course Medical Physics 2.0
Feb-16	ACE Summit and Reverse Expo – Healthcare Design Trends	Atlanta, GA	Changes with new equipment acquisition

May-16	Annual Meeting & Chapter Leadership Conference of American College of Radiology	Washington, D.C.	a. A Global Approach on Radiation Dose Reduction b. Radiation Dose Optimization Strategies in Medical Imaging
June -16	Society of Cardiovascular Computed Tomography	Orlando, FL	Evolution of Cardiovascular CT Dose: Low, Lower, Lowest!
Nov-16	University of Arkansas for Medical Sciences – Radiology Visiting Professor	Little Rock, AK.	a. CT Scan Parameters – Ingredients for an Optimal Image b. Fluoroscopy Physics c. Radiation Dose in CT d. What Can We Do to Address Concern Regarding Radiation Doses in Medical Imaging
Jan- 17	Health Physics Society 50th Midyear Meeting	Bethesda, MD.	Establishing Medical Imaging Acquisition Protocols
Apr – 18	AAPM Spring Clinical Meeting	Las Vegas, NV	Cardiac CT Principles and Radiation Dose
July -17	Society of Cardiovascular Computed Tomography	Washington, DC	a. Board Review on Radiation and Radiation Safety in Cardiac CT b. SCCT Guidelines on Radiation Dose Reduction
Jul – 18	AAPM Annual Meeting	Nashville, TN	Choosing Right Scan Parameters – Cardiac CT and Perfusion CT
July – 18	Society of Cardiovascular CT	Dallas, TX	a. Radiation and Radiation Safety b. CT Fundamentals
May – 19	CRCPD Meeting	Anchorage, AL	Dose Management in Pediatric CT Imaging
July -19	Society of Cardiovascular CT	Baltimore, MD	a. CT Fundamentals b. Radiation
Apr-19	United Nation Earth Day	Myrtle Beach, NC	c. Managing Radiation Risks in Pediatric CT Imaging
Nov – 19	Applied Radiology Forum (video recording of panel discussion)	Princeton, NJ	a. Managing Radiation Dose Data: Challenges and Efficiencies
Dec -19	Radiological Society of North America (RSNA)	Chicago, IL	Medical Radiation Exposure of Patients in the United States
Jan – 20	Health Physics Society Mid-Year Meeting	Bethesda, MD	Medical Radiation Exposure of Patients in the United States
Mar-20	Medical Physics Department – Duke University	Chapel Hill, NC	a. Medical Radiation Exposure of Patients in the United States (Distinguished Lecture) b. Tweet or Not to Tweet

June – 20	ACR-Pipeline Initiative Webinar Series	Virtual Meeting	Imaging Physics and Radiation Safety
July - 20	AAPM/COMP Annual Meeting	Virtual Meeting (Vancouver,CN)	c. NCRP 184: Medical Radiation Exposure of Patients in the United States d. Effective Communication is the Key to Medical Physics Leadership e. Hashtags 101: Social Media for Medical Physics
Aug – 20	NIH Grand Rounds	Virtual Meeting (Bethesda, MD)	Dual Energy CT with focus on Radiation Dose Optimization
Aug – 20	Applied Radiology – Expert Forums	Virtual Meeting	Perspective on COVID-19 Surge Preparedness
Oct – 20	Annual Scientific Meeting and Postgraduate Course in Emergency and Trauma Radiology	Virtual Meeting (Austin, TX)	Special Panel: Risks and Benefits of Diagnostic Imaging: Radiation Dose, Clinical Need and Imaging Utilization Panel discussion Medical Radiation Exposure of Patients in the United States
Nov – 20	Radiological Society of North America	Virtual Meeting (Chicago, IL)	Identification and Prevention of Accidents in Imaging
Mar -21	American College of Radiology – Quality and Safety Lecture Series	Virtual Meeting	Medical Radiation Exposure of Patients in the United States (CME lecture)
June - 21	Society of Cardiovascular CT	Virtual Meeting	CT Fundamentals
July - 21	56th Annual Meeting of American Association of Physicists in Medicine	Virtual Meeting (Columbus, OH)	a. Personal Finance 101 b. First CPT code for diagnostic medical physics: What to know and how to use this code
Aug – 21	Memorial Sloan Kettering Cancer Center (MSKCC) Grand Rounds	Virtual Talk (New York, NY)	Dual Energy CT in Radiation Therapy
Aug – 21	MRI Online – International attendees	Noon Conference - Virtual Talk	Managing Radiation Risks in Medical Imaging
Aug – 21	AAPM – Accelerating Women and Minority Physicists	Virtual Meeting	Value of the Medical Physicist and Advocacy
Sept – 21	Mid-Atlantic States Radiation Control Conference	Virtual Meeting	To shield or not to shield the gonads: That's the question!
Nov – 21	Image Wisely Facebook Live	Virtual Live	Decisions for medical imaging should be clinical not based on past radiation dose 

Nov - 21	Radiological Society of North America	In-person Meeting (Chicago, IL)	Utility of a new phantom for quantitative image performance evaluation of CT scanner
Dec – 21	Gilbert W. Beebe Webinar: Tracking Radiation Exposures from Medical Diagnostic Procedures	Virtual Webinar	1. Perspectives from National and International Organizations: American College of Radiology Commission on Medical Physics 2. Q&A and Discussion

State and Local Institutions

DATE	TITLE	LOCATION	TALKS
Feb-95	The Johns Hopkins School of Hygiene and Public Health	Baltimore, MD	Role of the Clinical Medical Physicist in Radiation Health Sciences
Nov-00	Maryland Society of Radiologic Technologist Conference	Ocean City, MD	Radiation concerns during fluoroscopy
2002-2004	PET/CT and SPECT/CT CME Course at Johns Hopkins University	Baltimore, MD	Technical aspects of computed tomography in PET/CT. PET/CT Practicum (multiples times)
Jun-03	Cardiovascular MRI/CT: Annual Update 2003	Baltimore, MD	Principles of MDCT and EBCT
Mar-04	Meeting of Mid-Atlantic States Radiation Control Programs	Port Deposit, MD	Full-field digital mammography
Apr-04	PET/CT and SPECT/CT Imaging of Cancer for Radiologists and Nuclear Medicine Physicians	Baltimore, MD	CT Choices for PET/CT and SPECT//CT
2005	PET-CT Practicum, Johns Hopkins University	Baltimore, MD	Technical aspects of computed tomography in PET/CT. PET/CT Practicum (multiples times)
Nov-05	Annual Meeting of Maryland Society of Radiation Technologists	Ocean City, MD	Digital Mammography: An Overview
2005	Johns Hopkins Fluoroscopy Credentialing Course. Course director and speaker (offered multiple times)	Baltimore, MD	a. Fluoroscopy principles b. Minimizing risks from fluoroscopy
2005	Fluoroscopy Credentialing Course – NorthWest Hospital	Baltimore, MD	a. Fluoroscopy principles b. Minimizing risks from fluoroscopy
2005	Fluoroscopy Credentialing Course – Sinai Hospital	Baltimore, MD	a. Fluoroscopy principles b. Minimizing risks from fluoroscopy

2005	Fluoroscopy Credentialing Course – Bon Secours Hospital	Baltimore, MD	a. Fluoroscopy principles b. Minimizing risks from fluoroscopy
Oct-07	Johns Hopkins Neuroradiology Review Course	Baltimore, MD	Radiation Doses in Neuroradiological Exams
Dec-07	Mercy Medical Hospital	Baltimore, MD	Minimizing risks from fluoroscopy
Dec-07	Sinai Hospital	Baltimore, MD	Minimizing risks from fluoroscopy
Dec-07	The Baltimore-Washington Chapter of the Health Physics Society	Columbia, MD	Magnitude of Medical Radiation Exposures to the US population: Preliminary Results from NCRP Scientific Committee 6-2
Dec-07	The Baltimore-Washington Chapter of the Health Physics Society	Columbia, MD	Magnitude of Medical Radiation Exposures to the US population: Preliminary Results from NCRP Scientific Committee 6-2
Feb-08	Prince Georges Hospital Center	Cheverly, MD	Fluoroscopy Refresher Lecture, **Grand Rounds**
Apr-08	Radiation Control Advisory Board Meeting, Maryland Department of the Environment	Baltimore, MD	Magnitude of Medical Radiation Exposure to the U.S. Population – How Should Regulatory Agencies React?
Sep-08	Regional State Inspectors Meeting organized by Maryland Department of the Environment Meeting	Baltimore, MD	Magnitude of Medical Radiation Exposure to the U.S. Population – How Should Regulatory Agencies React? Presentation at Regional State Inspectors Meeting
Nov-08	US FDA, Center for Devices and Radiological Health, Medical Device Fellowship Program	Rockville, MD	Magnitude of Medical Radiation Exposures to the US population
Feb-09	Princes Georges Hospital Center	Cheverly, MD	Minimizing Risks from Fluoroscopy, **Grand Rounds**
Sep-09	Johns Hopkins Department of Anesthesiology and Critical Care Medicine	Baltimore, MD	Radiation – Risks and Protection Issues during Medical Imaging Procedures. **Grand Rounds**
Jan-10	Department of Radiology – Johns Hopkins Hospital	Cheverly, MD	Radiation Dose. 2nd Annual CE Seminar
Feb-10	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Feb-10	Johns Hopkins Department of Orthopedic Surgery	Baltimore, MD	Managing Radiation Risks in X-ray Imaging in Orthopedic Procedures. **Grand Rounds**
May-10	FDA Medical Imaging Public Meeting	Gaithersburg, MD	Equipment Features for Computed Tomography (CT) Devices
Jun-10	Johns Hopkins Medical Institutions	Baltimore, MD	Radiation Exposure Issues with IRB Protocols. Johns Hopkins IRB Chairs Meeting
Jun-10	NIH Clinical Center	Bethesda, MD	Magnitude of Radiation Exposure to the US Population with a Focus on CT

Oct-10	CIRMS 2010 NIST 19th Annual Meeting	Gaithersburg, MD	Radiation Doses in Computed Tomography
Nov-10	RAD-AID Conference Johns Hopkins Hospital	Baltimore, MD	Radiation Safety in Global Radiology
Mar-11	Quantitative Nuclear Medicine to Improve Patient Outcomes Conference, Johns Hopkins University	Baltimore, MD	Quantifying Radiation Dose from Diagnostic Imaging including CT
Mar-11	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Apr-11	Johns Hopkins Hospital	Baltimore, MD	Lessons from the Field: Role of Chief Physicist in Overseeing Radiation Safety
Mar-12	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Nov-12	MACAAPM Dinner Meeting	Baltimore, MD	Should We Be Concerned about Radiation Doses from Imaging During Radiation Therapy?
Feb-13	Johns Hopkins School of Public Health	Baltimore, MD	Fukushima-Daiichi Reactor Accident and other contemporary issues related to Radiation
Mar-13	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Mar-13	Department of Radiology, University of Maryland	Baltimore, MD	CT Dose and Dose Reduction Strategies
Mar-13	Division of Medical Imaging Physics Seminar	Baltimore, MD	Fukushima-Daiichi Nuclear Power Plant Accident – An Update after 2 Years
Dec-13	Division of Pediatric Radiology, CME Talk, Johns Hopkins Hospital	Baltimore, MD	Radiation Dose Reduction without Compromising Image Quality
Feb-14	Seminar on-Air at the Johns Hopkins School of Public Health	Baltimore, MD	Fukushima-Daiichi Reactor Accident – an Update
Mar-14	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Apr-14	Radiation Biology Group at NIH Clinical Center	Bethesda, MD	CT – Radiation Dose Reducing Strategies; Technology-Education-Social Media
Oct-14	Annual Meeting of Mid-Atlantic Chapter of AAPM	Washington, DC	Evolving Professional Issues in Medical Physics – Diagnostic Imaging Physics
Mar-15	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Jun-15	2015 MIRD/SNNMI Radiopharmaceutical Dosimetry Symposium	Baltimore, MD	CT: Radiation Dose and Risks
Nov-15	MedStar Health Radiation Oncology Symposium	Columbia, MD	Radiation Dose Optimization Strategies in CT

Jan-16	Division of Medical Imaging Physics Seminar	Baltimore, MD	Dual Energy CT – Why has this technique not taken off?
Mar-16	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Mar-17	Division of Pediatric Radiology, CME Talk, Johns Hopkins Hospital	Baltimore, MD	Radiation Dose Reduction without Compromising Image Quality
Feb-17	Seminar on-Air at the Johns Hopkins School of Public Health	Baltimore, MD	Fukushima-Daiichi Reactor Accident – an Update after 6 years
Mar-17	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Oct-17	Order Wisely conference	Baltimore, MD	Radiation: Separating Facts vs Myths
Feb-18	Princes Georges Hospital Center	Cheverly, MD	Fluoroscopy Safety, **Grand Rounds**
Mar-18	Seminar on-Air at the Johns Hopkins School of Public Health	Baltimore, MD	Fukushima-Daiichi Reactor Accident – an Update after 7 years
Sep – 18	Mid-Atlantic States Conference	Cockeysville, MD	Managing Radiation Risk in Pediatric CT Imaging
Feb-20	Seminar on-Air at the Johns Hopkins School of Public Health	Baltimore, MD	Fukushima-Daiichi Reactor Accident – an Update after 8 years
2006-present	Cardiac CT Practicum, Johns Hopkins Bayview Medical Center	Baltimore, MD	Radiation Doses in Cardiac CT (offered multiple times every year)

OTHER PROFESSIONAL ACCOMPLISHMENTS

Testimonials Before Governing Bodies

1/09 Testified at the United States President's Cancer Panel on 'Medical Radiation Exposure with Focus on CT Dose', Phoenix, Arizona.

3/10 Testified at the FDA public meeting on "Device improvements to reduce unnecessary radiation exposure from medical imaging". Spoke regarding 'Equipment Features for CT Devices' and 'User Training' and participated in the round-table discussion

3/11 Testified in support of State of Maryland bill SB559 namely, "Environmental Radiology Safety Regulation" regarding the use of weighting factors for personal radiation monitoring

7/12 Testified at the FDA public meeting on "Device Improvements for Pediatric X-ray Imaging."

3/18 Testified against the State of Maryland Senate Bill 1087 namely, "Invasive Cardiovascular Professionals"

3/19 Testified in support of State of Maryland Bill 1087 amended house bill "Invasive Cardiovascular Professionals"

3/19 Testified in support of State of Maryland Bill 1087 amended senate bill "Invasive Cardiovascular Professionals"