

Michael S. Gossman, M.S., DABR, FAAPM, FACR

Fellow of the American Association of Physicists in Medicine

Fellow of the American College of Radiology

Diplomate of the American Board of Radiology

505 Beharrell Avenue
New Albany, IN 47150
C: (812) 557-0234
msgossman@hotmail.com

I. Licensure & Qualifications

American Board of Radiology

- Board Certified: Radiation Oncology Medical Physicist

Nuclear Regulatory Commission

- Radiation Safety Officer
- Authorized Medical Physicist

State Licensure / Registration

- Texas: Licensed Medical Physicist
- Indiana: Authorized Medical Physicist (Radiation Oncology Physicist & Health Physicist)
- Kentucky: Authorized Medical Physicist & Radiation Safety Officer
- Tennessee: Authorized Medical Physicist
- Missouri: Authorized Medical Physicist
- West Virginia: Authorized Medical Physicist

II. Education & Training

Government Radiation Triage	Department of Energy (DOE) at REACT/S	2008	Oak Ridge, TN
Clinical Residency	Parkview Comprehensive Cancer Center	2002-2003	Fort Wayne, IN
Clinical Residency	Baptist Memphis Cancer Institute	2001-2002	Memphis, TN
Clinical Residency	Floyd Memorial Hospital	1999-2001	New Albany, IN
Academic Residency	Vanderbilt University	1997-1999	Nashville, TN
Master of Science in Atomic Physics	University of Louisville	1995-1997	Louisville, KY
Bachelor of Science in Physics	University of Louisville	1992-1995	Louisville, KY
Cooperative Internship	University of Louisville, Radiation Safety	1994	Louisville, KY
Minor in Mathematics	Indiana University	1990-1992	New Albany, IN

III. Radiation Oncology Physics Experience

Chief Medical Physicist

Baptist Health Floyd, Department of Radiation Oncology, 2210 Green Valley Road, New Albany, IN 47150
(C/O: SINK Cancer LLC)
2019-Current

Chief Medical Physicist

Tri-State Regional Cancer Center (d.b.a. Ashland Radiation Oncology), 706 23rd Street, Ashland, KY 41101
2005-2020

Lead Medical Physicist

Erlanger Medical Center, Department of Radiation Oncology, 975 East 3rd Street, Chattanooga, TN 37403
2003-2005

Staff Medical Physicist → Lead Medical Physicist

Parkview Comprehensive Cancer Center, 2500 East State Street, Fort Wayne, IN 46805
2002-2003

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Senior Resident Medical Physicist → Staff Medical Physicist

Baptist Memphis Cancer Institute, Suite 100, 55 Humphreys Center Drive, Memphis, TN 38120
2001-2002

Resident Medical Physicist → Senior Resident Medical Physicist

Floyd Memorial Hospital, Department of Radiation Oncology, 1850 State Street, New Albany, IN 47150,
Baptist East Hospital, Department of Radiation Oncology, 4003 Kresge Way, Suite 115, Louisville, KY 40207
(C/O: Radiological Physics Consulting, P.C. (ret.))
1999-2001

External Beam

Treatments

- 2D/3D Conformal Radiation Therapy (2DCRT/3DCRT)
- Volumetric Modulated Radiation Therapy (VMAT) via RapidArc
- Intensity Modulated Radiation Therapy (IMRT) via Inverse Planning & Field-in-Field Forward Planning
- Varian Eclipse Cone Planning, Varian/ZMed FastPlan, Radionics X-Knife Stereotactic Radiosurgery (SRS) and Stereotactic Radiotherapy (SRT)
- Respiratory Motion Image Guided Radiation Therapy (IGRT) including Stereotactic Ablative Radiotherapy (SABR), and Stereotactic Body Radiation Therapy (SBRT)
- Intra-operative radiation therapy (IORT)
- High Dose Rate Total Skin Electron Therapy (HDTSET) – Modified Stanford Technique
- Total Body Irradiation (TBI)
- MIM Software, Inc. Maestro mediation software for fusion or reporting CBCT doses

Treatment Machines

- LINAC: Varian TrueBeam, Trilogy, 21EX, 2100C/D, 6EX, 600C, 1800 and Siemens KD2
- ⁶⁰Co: Theratron-780C and Eldorado-8

CT Scanners

- Siemens SOMATOM Sensation with Syngovia, including Varian RGSC & Anzai belt Respiratory Monitoring
- GE LightSpeed RT with Philips Voxel-Q, including Varian RPM

Quality Assurance

- LINAC calibration protocols: TG-51, TG-25, and TG-21 with RPC TLD/OSLD verification
- Chamber, MOSFET, TLD, diode, Sun Nuclear MapCHECK, ArcCHECK, IC Profiler and rf-Daily QA3 diode arrays with SNC software, Victoreen/Cardinal Health Thebes II, CNMC TheraPro+, Ready-Pak (with Vidar scanner and RIT software) and Gaf-Chromic film dosimetry (with Epson scanner and Ashland software), Varian Mobius DoseLab, CMS scanning densitometer, Modus Medical Fricke gel dosimetry, point densitometer, CMS 3D Scanner, MultiData 3D beam scanner, DynaScan 3D beam scanner, Leeds phantom, Las Vegas phantom, etc.
- Stereotactic Radiosurgery / Radiotherapy QA with Winston-Lutz, Mobius DoseLab QA kit, CIRS Steve 2 phantom, CIRS multi-lesion Brain phantom, RPC TLD RSVP I & RSVP II Head Phantom, Modus Medical Systems, Inc. ClearView gel dosimetry with Vista software, and Ready-Pak or Gaf-Chromic media
- Oncology Tech and .Decimal brass compensator QA for x-ray radiation
- X-ray Imager (Xi), Multi-leaf Collimator (MLC), Enhanced Dynamic Wedge (EDW), Electronic Portal Imaging Device (EPID), Portal Dosimetry, On Board Imaging (OBI)-Cone Beam CT (CBCT), Respiratory Gating for Scanners (RGSC-Gating), Real-time Positioning Management (RPM-Gating), Optical Surface Monitoring System (OSMS), Service mode PVA, IMRT QA, VMAT QA
- CT scanner CTDI_{vol}, DLP, and D_{Eff} measurements with head and body phantom
- MUCheck, Rad-Calc, Varian Mobius3D, and SNC DVHQA for LINAC timer verification
- R&V: Varian Aria and Varis; Elekta Mosaic; IMPAC MultiAccess

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- MIM & Varian Velocity fusion software
- LINAC shielding calculations, reconstruction architecture and survey measurements
- Treatment Machine Acceptance Testing
- LINAC, ^{60}Co Unit, Conventional Simulator and CT Simulator Commissioning and QA
- Software, Radiation Detector and Medical Physics Instrumentation Commissioning and QA

Brachytherapy

Intraluminal

- HDR intravascular;
 - Guidant ^{32}P afterloader
 - Novoste ^{90}Sr 5.0 F manual loader
 - Novoste ^{90}Sr 3.5 F manual loader (Managed 1st use of the 40 mm source train in the U.S.)

Interstitial

- Pterygium ophthalmic applications with ^{90}Sr
- Collaborative ocular melanoma study (COMS) eye plaque applications with LDR ^{125}I
- Syed vaginal needle templates containing radioactive stranded ribbons with LDR ^{192}Ir
- Paris system designed surgical placement of catheters for HDR and LDR ^{192}Ir
- MammoSite facility program development with HDR ^{192}Ir
- Ultrasound guided prostate implants with LDR ^{125}I , ^{103}Pd and ^{131}Cs
 - Preplanned pre-packaged or hand-loaded needle loaded implants
 - Real-time Mick applicator implants
 - Calibration of GE Model Logic P5 computer software against CR Bard Sure-Stepper grid and CIVCO Classic Stepper B&K grid

Intracavitary

- Gyn-oncology tandem, ovoid and cylinder applications with LDR ^{137}Cs
- Gyn-oncology tandem, ovoid, cylinder and catheter applications with HDR ^{192}Ir

Special Procedures

- Conventional simulation on diagnostic x-ray units for brachytherapy patient source localization
- Insert contrast media into Foley catheter for radiography
- Hand-load and remove radioactive ^{137}Cs and ^{192}Ir in patient for LDR cases
- GliSite program for brain tumors with ^{125}I (aq)
- Zevalin program for non-Hodgkin's Lymphoma radioimmunotherapy with ^{111}In and ^{90}Sr - ^{90}Y (aq)
- Xofigo program for prostate bone metastasis with ^{223}Ra (aq)

Computerized Treatment Planning

- Prostate needle implants: Varian VariSeed, MMS, CMS XiO
- Vaginal/Rectal Syed loading: CMS XiO, R.O.C.S.
- COMS loading: RenderPlan
- LDR gyn-oncology & special procedures: Varian BrachyVision, CMS XiO, R.O.C.S.
- HDR gyn-oncology & special procedures: Varian BrachyVision, CMS XiO, Elekta Oncentra
 - Guidant ^{32}P afterloader
 - Varian VariSource afterloader
 - Nucletron Selectron & microSelectron afterloader

Cumulative Administrative Duties

- Radiation Safety Officer & Radiation Safety Committee Chair; Radioactive Material License production, application and maintenance

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- Policy and Procedure Manual production, application and maintenance
- VA National Radiation Oncology Program (NROP) approval in 2018 (1st facility in KY)
- ACRO Accreditation program initial development to acceptance in 2009 (1st facility in KY)
- ACR Accreditation program initial development to acceptance in 2007 (3rd facility in KY)
- Training of Qualified Medical Physicist Site Accreditation Reviewers
- Supervision and training of Staff Medical Physicists, Dosimetrists, Radiation Therapy Technologists, Radiology Technologists
- Continuing education development for all intradepartmental Allied Health Professionals
- Institutional Review Board (IRB) Investigator-Initiated Research Principal Investigator (PI)
- Tumor Board participant
- American Cancer Society Annual Report Committee member

IV. Medical Health Physics Experience

Senior Medical Health Physicist & Institutional Safety Officer (ISO)

Vanderbilt University Medical Center (VUMC)

Department of Institutional Safety

801 Baker Building

7722, Station B

Nashville, TN 37235

1997-1999

Radiation Oncology Procedures

- Medical Center supervision for brachytherapy treatments: ¹²⁵I and ¹⁰³Pd prostate implants, ¹³⁷Cs intracavitary implants, and ¹⁹²Ir lung catheter implants

Nuclear Medicine Procedures

- Medical Center supervision for ¹³¹I (aq) thyroid carcinoma and hyperthyroidism
- Perform thyroid bioassays for participating staff

Radioactive Waste Management

- Contain, store and/or facilitate transport of radioactive materials for disposal
- Identify unknown radioisotopes in containers through scintillation analysis
- Shipping, receiving and ordering radioactive materials

Radiobiology Research Environments

- Medical Center supervision for over 200 laboratories
- Radiation Detection Instrument Calibration Supervisor for entire institution; over 500 Geiger counters, scintillation meters, ionization chambers and pocket dosimeters

Cumulative Administrative Duties

- Institutional Safety Officer for sections: Radiological, Biological, Chemical, Fire
- Instructor for Radiation Safety Seminar given quarterly for new graduate students, medical staff and physicians
- Instructor for Nuclear Medicine Technology students
- Supervision of Radiation Safety Technicians
- Execute action on non-compliance of VUMC regulations over grant operating Principal Investigators involved with radioisotope usage

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V. Society Affiliations

American Board of Radiology (ABR)
American Association of Physicists in Medicine (AAPM)
Ohio River Valley Chapter (ORVC) of the AAPM
American College of Radiology (ACR)
Kentucky Chapter of the ACR
American College of Radiation Oncology (ACRO)
American Society for Therapeutic Radiology and Oncology (ASTRO)
American College of Medical Physics (ACMP)
Tennessee Radiological Society (TRS)
Health Physics Society (HPS)
American Society for Artificial Internal Organs (ASAIO)
North American Neuromodulation Society (NANS)
Institute of Electrical and Electronics Engineers (IEEE)
Product Safety Engineering Society (PSES)
National Physics Honor Society ($\Sigma\Pi\Sigma$)

VI. Medical Society Appointments

AAPM (American Association of Physicists in Medicine) Board of Directors *Delegate from ORVC*
AAPM Administrative Council *Ex Officio*
ACR (American College of Radiology) Medical Physics Practice Accreditation Site Reviewer
ORVC (Ohio River Valley Chapter) of the AAPM Past-President
ORVC of the AAPM President 2011
ORVC of the AAPM President 2010
ORVC of the AAPM President-Elect
ACRO (American College of Radiation Oncology) Medical Physics Practice Accreditation Site Reviewer
ABR (American Board of Radiology) Oral Examiner – ORVC (Mock Orals)
AAPM Task Group: Modeling and Accounting for the Imaging Guidance Radiation Doses to Radiotherapy Patients in Treatment Planning (TG-180) (Term I & II)
AAPM Task Group: Management of Radiotherapy Patients with Implanted Cardiac Pacemakers/Defibrillators (TG-203)
AAPM Task Group: Electronic Brachytherapy (TG-152)
AAPM Task Group: Placement Services Redesign (TG-173)
AAPM Insurance Subcommittee
AAPM Regional Organization Committee (RO)
AAPM Clinical Practice Committee (CPC)
AAPM Working Group on Model Quality Assurance Programs in Radiation Oncology and Radiology
AAPM Medical Physics Licensure and Regulatory Recognition Subcommittee
AAPM Working Group on Response to Radiation Incidents (WGRI)
AAPM Therapy Physics Radiation Safety Subcommittee (RSSC) (Term I & II)
AAPM Peer Review Clearinghouse Subcommittee (PRCSC)
AAPM History Committee (HIS) (Term I: Member → Vice Chair & Term II: Chair)
ORVC of the AAPM Panel Judge for Spring Symposium
ORVC of the AAPM Joint OH Task Group *Ex Officio*
AAPM Moderator: History Committee Symposium (History of Task Group Calibrations)
AAPM Moderator: History Committee Symposium (Radionuclide Therapy: Dr. Saul Hertz to Present)
AAPM Moderator: History Committee Symposium (Coolidge, the X-ray Tube, and History Archives)
AAPM Moderator: Medical Practical Medical Physics Tract - Strategies for Total Quality
AAPM Abstract Reviewer for Annual Meeting – Tracks: Oncology, Radiology, Nuclear Medicine, Health Physics
IHE-RO (Integrating the Healthcare Enterprise – Radiation Oncology) of Radiological Society of North America (RSNA)

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ΣΠΣ (Sigma Pi Sigma: National Physics Honor Society) Vice President at UofL

VII. Editorial Appointments

Medical Dosimetry Journal (AAMD):	2003-2011	Reviewer → Interim Editor-in-Chief
Journal of Applied Clinical Medical Physics (JACMP):	2005-2013	Reviewer → Board of Editors
Medical Physics Journal (AAPM):	2011-2013	Reviewer
Int. J. Radiation Oncol., Biol. and Physics (ASTRO):	2010-2011	Reviewer
Journal of Medical Physics (AMP India):	2010-2011	Reviewer
Health Physics Journal (HPS):	2010-2011	Reviewer
Brachytherapy Journal (ABS):	2007-2008	Reviewer

VIII. Federal Appointments

NRC Medical Consultant [EG-0801-00-00]

U.S. Nuclear Regulatory Commission

Federal and State Material and Environment (FSME) Management Program Office

11545 Rockville Pike

Mail Stop T8F3

Rockville, MD 20852

2006-2010

- Independent medical evaluation of the probable deterministic effects of radiation exposures
- Interpretation of bioassay results and other data related to radiation exposure
- Calculation of internal and external radiation doses, as necessary
- Participation in NRC inspections and investigations to determine the root cause of the radiation exposure incidents and probable deterministic effects of the exposure on the exposed person(s)
- Evaluation of reports the licensee submits to the NRC and to the exposed individual after a radiation exposure incident or medical event
- Provide technical support to the NRC as necessary for rule making activities as well as validation and verification of research results
- Provision of expert testimony regarding inquiries or hearings, and as requested by the NRC, participation in selected conferences on the biological effects of radiation and radioactive materials

IX. State Appointments

Kentucky Radiation in Medicine Advisory Committee [Founder: 2011]

State of Kentucky

Cabinet for Health & Family Services

Department for Public Health

275 East Main Street, 4W-A

Frankfort, KY 40621

2011-2012

Kentucky Health Emergency Listing of Professionals for Surge (KHELPS): State Radiation Triage

2008-2019

Kentucky Response Volunteer Corps: State Radiation Emergency Monitoring

2012-2019

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X. City/County Appointments

Radiological Triage Physicist Liaison
Greenup County, KY
Office of Emergency Management
424 Perry Street
Greenup, KY 41144
2008-2014

Radiation Safety Advisor
Ashland-Boyd County-Catlettsburg, KY
Office of Emergency Management
1409 Blackburn Avenue
Ashland, KY 41101
2008-2014

Medical Reserve Corps (MRC) - Boyd County, KY: Local Radiation Triage
2008-2019

XI. Teaching

- Wright State University, Physics Department Adjunct Professor: 2010-2011, 2015-2018
- Morehead State University, Physics Department Capstone Advisor (*pro bono*): 2018
- Marshall University, Physics Department Capstone Advisor (*pro bono*): 2015-2017
- University of Louisville, Physics Department Capstone Advisor (*pro bono*): 2012
- Vanderbilt University, Physics Department Graduate Assistant: 1998-1999
- University of Louisville, Physics Department Graduate Assistant: 1995-1997
- Indiana University, Physics Department Undergraduate Assistant: 1993-1995
- Dosimetry Training Tool mentor (web-based) for Dosimetrists pursuing CMD (*pro bono*): 2012-2013
- Adopt-a-Physicist mentor (web-based) for high school students (*pro bono*): 2010-2011
- Mentor.net mentor (web-based) for college students majoring in physics (*pro bono*): 2009-2010

XII. Awards & Honors

American College of Radiology	2020	Fellow
Ohio River Valley Chapter of the AAPM	2020	Board Representative Award
King's Daughters Medical Center	2018	Scientist of the Year
American Association of Physicists in Medicine	2012	Fellow
Ohio River Valley Chapter of the AAPM	2011	Presidential Award
Ohio River Valley Chapter of the AAPM	2010	Presidential Award
Vanderbilt University	1997-1999	Graduate Teaching Assistantship
ΣΠΣ National Physics Honor Society	1997	National Honors Inductee
University of Louisville	1995-1997	Graduate Teaching Assistantship
Indiana University	1993-1995	Undergraduate Teaching Assistantship

XIII. Scientific/Medical Written Contributions

Contributions to International Standards

1. **Gossman MS.** International Organization for Standardization, ISO 14708-7 {201}, Implants for surgery – active implantable medical devices – Part 7: Particular requirements for cochlear implant systems, Section 22.4, 2017. {Wrote first draft of entire section on incident radiation immunity testing}.

Contributions to State or Federal Regulations

1. Thomadsen BR, Biggs PJ, DeWard LA, Coffey CW, Tsao SC, **Gossman MS**, et al. Report of AAPM Task Group 152, Model regulations for electronic brachytherapy. American Association of Physicists in Medicine. College Park, MD (2009). {Adopted verbatim into law by many States}.

Books

1. **Gossman MS**, Calibration methodology and multiple tip structure by scanning tunneling microscopy. UMI Company, 789 East Eisenhower Parkway, Ann Arbor, MI 48106 (1997).

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Chapters

1. **Gossman MS.** Aspects of pacemakers - functions and interactions in cardiac and non-cardiac indications (Pacemakers - Book 2), Chapter 9, Clinical concerns for and strategies with pacemakers in radiation oncology. Edited by Vonend O and Eckert S. InTech, Janeza Trdine 9, 51000 Rijeka, Croatia (2011).
2. Sibata CH and **Gossman MS.** Quality and safety in radiotherapy, Chapter 27, The role of quality audits: A view from North America. Edited by Pawlicki T, Dunscombe P, Mundt AJ and Scalliet P. Taylor & Francis Group Ltd., 2 Park Square, Milton Park, Abingdon, Oxford OX14 4RN, UK (2010).

Compendia, Monographs, Reports, Manuals & White Papers

1. **Gossman MS.** Vascular port considerations in Radiology, Radiation Oncology and Neurology. Angiodynamics. Angiodynamics Customer's Guide (2014).
2. **Gossman MS.** Comparison of implantable vascular access ports – CT marker visualization, CT induced artifacts, and megavoltage x-ray dosimetry interference. Smiths-Medical Online User's Guide (2015).
3. **Gossman MS** and Burgess LA. Controversies in medical physics: A compendium of point/counterpoint debates, Volume 2. Chapter 7.8. Editors: Hendee WR and Orton CG. American Association of Physicists in Medicine. One Physics Ellipse, College Park, MD 20740 (2012).
4. **Gossman MS.** Quasar programmable respiratory motion platform User's Guide (Platform Resp UGr4), Appendix 8: QUASAR platform phantom waveform. Modus Medical Devices, Inc. London, Ontario, Canada (2012).
5. Thomadsen BR, Biggs PJ, DeWard LA, Coffey CW, Tsao SC, **Gossman MS**, et al. Report of AAPM Task Group 152, Model regulations for electronic brachytherapy. American Association of Physicists in Medicine. College Park, MD (2009).
6. **Gossman MS** and Halvorsen PH. Controversies in medical physics: A compendium of point/counterpoint debates. Chapter 10.13. Editors: Hendee WR and Orton CG. American Association of Physicists in Medicine. One Physics Ellipse, College Park, MD 20740 (2008).
7. **Gossman MS** and Felinski-Semler BF. Controversies in Medical Physics: A compendium of point/counterpoint debates. Chapter 8.13. Editors: Hendee WR and Orton CG. American Association of Physicists in Medicine. One Physics Ellipse, College Park, MD 20740 (2008).

Journal Articles

1. Mihailidid D, Miften M, Esquivel C, Farr J, Followill D, Kry SF, Hurkmans C, Liu A, Gayou O, **Gossman MS**, Mahadevappa M, Popple R, Prisciandara J, Reft C, Wilkinson J. Management of radiotherapy patients with implanted cardiac pacemakers and defibrillators: A report of the AAPM TG-203. Medical Physics. 2019; 46(12): e757-788.
2. Ding GX, Parham A, Curran B, Flynn RT, **Gossman MS**, Mackie TR, Miften MM, Morin RL, Xu XG, Zhu TC. Image Guidance Doses Delivered During Radiotherapy: Quantification, Management, and Reduction: Report of the AAPM Therapy Physics Committee Task Group 180. Medical Physics. 2018; 45(5): e84-99.
3. **Gossman MS**, Zheng H, Li J, Ng CK. A study of Nuclear Medicine contrast retention in vascular access ports. Insights in Biomedical Research. 2017; 1(1): 17-22.
4. **Gossman MS**, Zhu M, Zheng H, Ng, CK. Investigation of MRI contrast release in vascular access ports after priming. Insights in Biomedical Research. 2017; 1(1): 12-16.
5. **Gossman MS**, Zheng H, Evans JG, Li J, Ng CK. Assessment of radiopharmaceutical compatibility for vascular access ports using positron emission tomography imaging. Journal of Applied Clinical Medical Physics. 2017; 18(6): 244-249.
6. **Gossman MS** and Brown M. Hyperbaric pressure chamber structural integrity testing for vascular access ports. SM Journal of Biomedical Engineering. 2017; 3(2): 1020-1024.
7. **Gossman MS** and Xu M. Stacked pie cage in vivo mouse dosimetry involving multiple sources and energies. Medical Research Archives. 2017; 5(8): 1-13.
8. **Gossman MS** and Courter E.J.L. Stereotactic radiosurgery delivery verification using tetrazolium salt-based gel as a dosimeter. Canadian Journal of Physics. 2017; 95:725-730.

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9. **Gossman MS.** *Letter from our Chapter Board of Directors Member.* Ohio River Valley Chapter Newsletter. 2017; 1(1); 2-3.
10. **Gossman MS,** Graham JD, Depot S, Zheng H, Li J, Ng CK, and Tamez D. *Positron-emission tomography acquisition imaging studies of a miniature ventricular assist device using FDG and NaF.* Journal of Nuclear Medicine and Technology. 2016; 44(3): 190-194.
11. **Gossman MS.** *Addendum to brachytherapy dose-volume histogram commissioning with multiple planning systems.* Journal of Applied Clinical Medical Physics. 2016; 17(3): 502-505.
12. **Gossman MS,** Graham JD, Tamez D, Voskoboynikov N, Larose JA. *In vitro evaluation of a miniature ventricular assist device (MVAD): stability under high dose x-ray and proton radiation.* Biomedical Physics & Engineering Express Journal. 2016; 2(025014): 1-8.
13. **Gossman MS.** *Radiation testing of the GERD stimulation therapy system using a particle accelerator.* Neuromodulation: Technology at the Neural Interface. 2015; 18(8): 729-735.
14. **Gossman MS,** Wilkinson JD and Mallick A. *Treatment approach, delivery and follow-up evaluation for cardiac rhythm disease management patients receiving radiation therapy: retrospective physician surveys and chart reviews at numerous centers.* Medical Dosimetry Journal. 2014; 39(4): 320-324.
15. **Gossman MS** and Levy JR. *Stereotactic radiosurgery head phantom bite tray fit reproducibility.* Journal of Medical Devices. 2014; 8(4): 044505-1-2.
16. Sarkar B, Manikandan A, Nandy M, **Gossman MS,** Sujatha N and Ray DJ. *Detector system dose verification comparisons for arc therapy: couch vs. gantry mount.* Journal of Applied Clinical Medical Physics. 2014; 15(3): 41-53.
17. **Gossman MS.** *Cochlear implant obstruction in Radiation Oncology.* Journal of Otology & Rhynology. 2014; 3(2): 1-7.
18. **Gossman MS,** Melhus CS, Hancock SS, Kudchadker RJ, Lundahl PR and Cao M. *Brachytherapy dose-volume histogram commissioning with multiple planning systems.* Journal of Applied Clinical Medical Physics. 2014; 15(2): 110-120.
19. Sarkar B, Manikandan A, Nandy M, **Gossman MS,** Sureka CS, Ray A and Sujatha N. *A mathematical approach to beam matching.* British Journal of Radiography. 2013; 86(1031): 1-8.
20. Nande R, Greco A, **Gossman MS,** Lopez JP, Claudio L, Salvatore M, Brunetti A, Denvir J, Howard CM and Claudio PP. *Microbubble assisted p53, pRB, and p130 gene transfer in combination with radiation therapy in prostate cancer.* Current Gene Therapy. 2013; 13(3): 163-74.
21. **Gossman MS** and Blohm CM. *Letter to the Editor - Re: Beam profile disturbances from interactions with implantable pacemakers and implantable cardioverter-defibrillators.* Medical Dosimetry Journal. 2013; 38(2): 109.
22. **Gossman MS,** Graham JD, Das IJ, Cheng CW, Coutinho L, Tamez D, Voskoboynikov N and Larose JA. *Evaluation of a ventricular assist device system: stability in a proton beam.* Journal of the American Society for Artificial Internal Organs. 2012; 58(6): 597-600.
23. **Gossman MS,** Ketkar A, Liu AK and Olin B. *Vagus nerve stimulator stability and interference on radiation oncology x-ray beams.* Physics in Medicine and Biology. 2012; 57: N365.
24. **Gossman MS.** *Book Review: Image-Guided Radiation Therapy,* Edited by J. Daniel Bourland in CRC Press, Taylor & Francis Group, Boca Raton, FL. Medical Physics. 2012; 39(6): 3521-3521.
25. Reddy K, Cook B, Shaw C, Searing E, **Gossman MS** and Liu AK. *Intact performance of a cochlear implant following radiotherapy in a child with acute lymphoblastic leukemia.* Practical Radiation Oncology. 2012; 2(3): 233-236.
26. **Gossman MS,** Graham JD, Tamez D, Voskoboynikov N and LaRose JA. *Evaluation of a ventricular assist device: stability under x-rays and therapeutic beam attenuation.* Journal of the American Society for Artificial Internal Organs. 2012; 58(3):212-216.
27. **Gossman MS,** Das IJ, Lopez JP, Sharma SC, CM Howard and PP Claudio. *A novel phantom model for mouse tumor dose assessment under MV beams.* Health Physics Journal. 2011; 101(6): 746-753.
28. **Gossman MS,** Treaba C, and Kirk J. *Radiation therapy in cochlear implants.* Otology & Neurotology. 2011; 32(4): 553-557.

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29. **Gossman MS**, Hebb AO, Lawson RC, Graves-Calhoun AR, Wilkinson JD, Lopez JP and Powell JS. *Effects on radiation oncology treatments involving various neuromodulation devices*. Journal of X-ray Science and Technology. 2011; 19(4): 443-456.
30. **Gossman MS**. *Report of 2011 ORVC Fall Educational Symposium*. AAPM Newsletter, American Association of Physicists in Medicine. 2011; 36(6): 31.
31. **Gossman MS** and Segarra DC. *Electron radiation dosimetry for modern vascular access ports*. Imaging Technology News. 2011; 10: 29-32.
32. **Gossman MS**, Nagra B, Graves-Calhoun AR, and Wilkinson JD. *Beam profile disturbances from interactions with implantable pacemakers and implantable cardioverter-defibrillators*. Medical Dosimetry Journal. 2011; 36: 358-364.
33. **Gossman MS**. *Design of site-specific prognostic morbidity-mortality studies and internal outcome focus studies in radiation oncology*. Journal of the American College of Radiology. 2011; 8(7): 490-496.
34. **Gossman MS**. *Report of 2011 ORVC Spring Educational Symposium*. AAPM Newsletter, American Association of Physicists in Medicine. 2011; 36(3): 31-32.
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Fellow of the American Association of Physicists in Medicine

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51. **Gossman MS** and Sharma SC. *Total skin high-dose-rate electron therapy dosimetry using TG-51*. Medical Dosimetry Journal. Winter 2004; 29(4): 285-287.
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Colloquia

1. *A Brief History of My Time*, Exponent, Inc., Menlo Park, CA, October 2015.
2. *Presidential Address: Officers & History*, American Association of Physicists in Medicine – Ohio River Valley Chapter, Louisville, KY, October 2011.
3. *Updates of effort by the Ohio River Valley Chapter*, Chapter Breakfast with ExCom, American Association of Physicists in Medicine, Vancouver, Canada, August 2011.
4. *Status of the Ohio River Valley Chapter on Licensure*, Joint Medical Physics Licensure Subcommittee, American Association of Physicists in Medicine, Vancouver, Canada, July 2011.
5. *Presidential Address: Officers & History*, American Association of Physicists in Medicine - Ohio River Valley Chapter, Cincinnati, OH, March 2011.
6. *Presidential Address on Officers & History*, American Association of Physicists in Medicine - Ohio River Valley Chapter, Bloomington, IN, September 2010.
7. *History of the AAPM ORVC*, American Association of Physicists in Medicine - Ohio River Valley Chapter, Cincinnati, OH, March 2010.
8. *Therapeutic radiation beam interference from implanted electrostimulation devices: IRB No. KDMC-2010-006*. King's Daughters Health System, Institutional Review Board (IRB), Ashland, KY, May 2010.
9. *Radiation dosimetry involving vascular access ports*. Tri-State Regional Cancer Center, C/O American Association of Medical Dosimetrists staff and American Society of Radiologic Technologists (ASRT) staff, Ashland, KY, December 2009.
10. *Radiation dosimetry involving implantable pacemakers and defibrillators*. Tri-State Regional Cancer Center, C/O American Association of Medical Dosimetrists staff and American Society of Radiologic Technologists staff, Ashland, KY, November 2009.
11. *Grant No. 1106: Establishing the functional stability of Medtronic defibrillators and pacemakers as well as local radiation oncology dosimetry concerns when high energy particle accelerator beams are directed through such devices*. Medtronic, Inc., External Research Program, Mounds View, MN, August 2009.
12. *Medical physics using radioactive material*, Tri-State Regional Cancer Center, C/O St. Joseph Central Catholic High School, Ashland, KY, March 2007.
13. *Thomson-Nielson MOSFET Users Meeting – Selected Speaker*, American Association of Physicists in Medicine, Seattle, WA, August 2005.
14. *Principles of medical physics and special procedures*, University of Tennessee at Chattanooga, Physics Department, Chattanooga, TN, March 2005.
15. *Advances in imaging again mean advances in treatment*, Tennessee Society of Radiologic Technology (TSRT), Erlanger Medical Center, Chattanooga, TN, November 2004.
16. *Breast cancer treatment*, Parkview Hospital, Radiation Oncology, Fort Wayne, IN, February 2003.
17. *Radiation oncology physics*, Indiana University Southeast, Physics Department, New Albany, IN, September 2002.
18. *The physics of radiation therapy*, Parkview Hospital, Biomedical Engineering Department, Fort Wayne, IN, September 2002.
19. *Radiation safety seminar: 5-day lecture*, Vanderbilt University Medical Center, Department of Institutional Safety, Nashville, TN, June 1998.
20. *Radiation safety seminar: 5-day lecture*, Vanderbilt University Medical Center, Department of Institutional Safety, Nashville, TN, January 1998.

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21. *Calibration methodology and multiple tip structure by scanning tunneling microscopy*, University of Louisville, Physics Department, Louisville, KY, June 1997.
22. *Scanning tunneling microscopy*, University of Louisville, Physics Department - ΣΠΣ National Physics Honor Society, Louisville, KY, January 1997.
23. *Physics as a career and special topic: scanning tunneling microscopy*, Jeffersonville H.S., Science Department, Jeffersonville, IN, December 1996.

Conference Poster Presentations

1. Sandwall P, Thomas S, **Gossman MS**, Cheek, Dennis, Ayan A, and Cetnar A. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Indianapolis, IN, 2019.
2. Sandwall P, Thomas S, **Gossman MS**, Cheek, Dennis, Ayan A, and Cetnar A. *AAPM ORVC history*. American Association of Physicists in Medicine, San Antonio, TX, 2019.
3. Barker M, Cetnar A, Sandwall P and **Gossman MS**. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Nashville, TN, 2018.
4. Sperling N, Luo W, Cetnar A, Sandwall P and **Gossman MS**. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Indianapolis, IN, 2017.
5. Sperling N, Luo W, Cetnar A, Sandwall P and **Gossman MS**. *AAPM ORVC history*. American Association of Physicists in Medicine, Denver, CO, 2017.
6. Hancock SS, Clements M, Hyer DE, Nixon E, Martin E, Wang B, Jani SK, and **Gossman MS**. *Comprehensive machine isocenter evaluation with separation of gantry, collimator, and table variables*. Electronic Display Discussion Session. American Association of Physicists in Medicine, Washington, D.C., 2016.
7. **Gossman MS**. *Active radiation testing of the EndoStim GERD stimulation therapy system using a radiation oncology particle accelerator*. North American Neuromodulation Society, Las Vegas, NV, 2014.
8. Blohm CM and **Gossman MS**. *Beam transmission dependence on pacemaker and defibrillator orientation*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Indianapolis, IN, 2012.
9. Blohm CM and **Gossman MS**. *Beam transmission dependence on pacemaker and defibrillator orientation*. University of Louisville, Physics Department - ΣΠΣ National Physics Honor Society, Louisville, KY, 2012.
10. **Gossman MS**. *Brachytherapy dose-volume histogram commissioning: analysis with multiple treatment planning systems*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Indianapolis, IN, 2012.
11. Cao M, **Gossman MS**, Allgower CE and Weldon MD. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Indianapolis, IN, 2012.
12. Nande R, **Gossman MS**, Lopez JP, Howard C, Denvir J and Claudio PP. *Comparison of microbubble assisted p53, pRB, and p130 gene therapy in combination with radiation therapy in prostate cancer in vitro and in vivo*. University of Kentucky, The Center for Clinical and Translational Science - 7th Annual Spring Conference, Lexington, KY, 2012.
presents the 7th Annual Spring Conference
13. Nande R, **Gossman MS**, Lopez JP, Howard C, Denvir J and Claudio PP. *Comparison of microbubble assisted p53, pRB, and p130 gene therapy in combination with radiation therapy in prostate cancer in vitro and in vivo*. Research Day at Marshall University, Cabell Huntington Hospital, Huntington, WV, 2012.
14. **Gossman MS**. *Design of site-specific prognostic morbidity-mortality studies and internal outcome focus studies in radiation oncology*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Columbus, OH, 2012.
15. Cao M, **Gossman MS**, Allgower CE and Weldon MD. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Columbus, OH, 2012.
16. Cao M, **Gossman MS**, Allgower CE and Weldon MD. *AAPM ORVC history*. American Association of Physicists in Medicine, Charlotte, NC, 2012.
17. **Gossman MS**, Pahikkala AJ, Rising MB and McGinley PH. *NCRP-151 is wrong for skyshine: New solid angle equation provided*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Louisville, KY, 2011.

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18. Cao M and **Gossman MS**. *AAPM ORVC history*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Louisville, KY, 2011.
19. **Gossman MS** and Bank MI. *Dose-volume histogram quality assurance for linac-based treatment planning systems*. American Association of Physicists in Medicine – Ohio River Valley Chapter, Cincinnati, OH, 2011.
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21. Zhao L, Cheng CW, Moskvina V, Wolanski M, James J, **Gossman MS**, Dikeman K, Srivastava S, and Das IJ. *Dose uncertainty due to high-Z materials in clinical proton beam therapy*. American Association of Physicists in Medicine, Philadelphia, PA, 2010.
22. **Gossman MS**, Zhao L, Cao M, Lopez JP and Das IJ. *Dose delivery effects in electron beams from surgical breast clips*. American Association of Physicists in Medicine, Anaheim, CA, 2009.
23. Berg RE, **Gossman MS** and Klash SJ. *Surface dose prediction and verification for IMRT plans using line dose profiles*. American Society for Therapeutic Radiology and Oncology, Atlanta, GA, 2004.

XIV. Entrepreneurship

Owner, President & CEO
Regulation Directive Medical Physics, LLC [Founder: 2010]
505 Beharrell Avenue
New Albany, IN 47150
2010-Current

XV. Patents, Copyrights, Trade Marks & Service Marks

- U.S. Service Mark Class 044, October 4, 2011, Reg. No. 4,034,458: Regulation Directive Medical Physics®
- U.S. Service Mark Class 044, September 20, 2011, Reg. No. 4,028,490: RDMP®
- U.S. Service Mark Class 044, June 26, 2012, Reg. No. 4,164,488: Stylized symbol - (G)RDMP®
- Active Patent/Product Developments:
 - ❖ Inventor of the RSVP Phantom® II for SRS/SRT QA through the Phantom Laboratory, Inc.

XVI. Avocations

- Industrial: Medical device/product R&D, evaluation, imaging and testing
- Medical: Medical physics locum tenens, peer review, accreditation preparation and formal audits
- Legal: Expert witness and consultant

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