

Curriculum Vitae

G. DONALD FREY, PH.D., FAAPM, FACR

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EDUCATION:

1960-1965 B.S. (Physics) Canisius College, NY
1965-1970 Ph.D. (Nuclear Physics) University of South Carolina, Columbia, SC

SPECIAL CERTIFICATION:

1977 Certified in Radiological Physics by the American Board of Radiology

MILITARY SERVICE:

1st Lt ORD Corp, US Army, 1965-1973 (Honorable Discharge, 1973)

FACULTY APPOINTMENTS:

1971 MUSC, Associate
1976 MUSC, Assistant Professor, Radiology
1982 MUSC, Associate Professor, Radiology
1987 MUSC, Director, Diagnostic Physics
1990-1992 MUSC Associate Chairman (Technical Development), Radiology
1997 MUSC, Professor of Radiology

AWARDS AND HONORS:

Award for Valor - New York State Circulation Managers, 1955
National Science Foundation Summer Traineeship, 1967
National Aeronautics and Space Administration Traineeship, 1968-1970
Fellowship - American Association of Physicists in Medicine, 1994
SEAAPM Service Award, 1997
Fellowship - American College of Radiology, 1999
Distinguished Service Recognition – AAPM – 2005
Jimmy O Fenn Lifetime Achievement Award (Inaugural Award) – SE-AAPM – 2006
2006 Editor's Recognition Award – Radiology
Radiological Society of North America – 3rd Vice President (2007-2007)

STUDY SECTIONS:

US Army Medical Research and Development Command, Breast Cancer Grants 1992
US Army Medical Research and Development Command, Breast Cancer Grants 1994
US Army Medical Research and Development Command, Breast Cancer Grants 1995
US Army Medical Research and Development Command, Breast Cancer Grants 1996
US Army Medical Research and Development Command, Breast Cancer Grants 1998

PROFESSIONAL/SCIENTIFIC SOCIETIES:

INTERNATIONAL:

European Congress of Radiology

European Federation of Organizations for Medical Physics

Summer School Co-Director (The Expanding Role of the Diagnostic Medical Physicist),
Nice, FR, 1997

AAPM Liaison to the Education and Training Committee, 1998-present

European Congress of Medical Physics & Clinical Engineering, Belfast, September 2001

International Advisory Committee

European School of Medical Physics, Week 2 Co-Supervisor, Archamp, FR, 2001

International Organization for Medical Physics

Delegate, 2001-present

International Advisory Board, 2004-2006

Awards and Honors Committee, 2006-Present

NATIONAL:

American Association of Physicists in Medicine (Fellowship 1994)

Secretary/Treasurer - Southeast Chapter, 1975

Committee on Computers in Medicine, 1977

President-Elect - Southeast Chapter, 1980

Ethics Committee, 1980-1983

Program Chairman - Southeast Chapter, Orlando, FL, April 1981

President - Southeast Chapter, 1981

General Medical Physics, 1983-84

Diagnostic Radiology Committee, 1985-1988

Bone Mineral Task Force, 1985-1992

Program Chairman - SE Chapter Meeting, Charleston, SC, April 1987

President - Southeast Chapter, 1987-1988

Task Group on NCRP 49, 1989-1990

Continuing Education Committee, 1988-1997

Chairman, 1992-1997

Chairman, Summer School Subcommittee, 1993-1997

Annual Meeting and Refresher Course Subcommittee 1993-1997

RSNA Education Coordination Subcommittee 1993-1996

Task Group on the Role of Diagnostic Physics, 1989-1994

Co-Director - SE Chapter, Mammography Symposium, 1990

Board of Trustees, 1990-1996

SEAAPM Local Arrangements Committee, 1991

Education Council, 1992-2002

Chairman, 1998-2002

Finance Committee, 1992-1997

Budget Subcommittee 1992-1997

Publications Committee, 1992-1997

Annual Meeting Coordination Committee, 1993-1997

Education Council Coordinator, Awards and Honors 1995-1997

Co-Director 1997 International Summer School

(The Expanding Role of Medical Physics in Diagnostic Imaging)

Newsletter Task Group (Publications Committee), 1996
Ad Hoc Committee on Board Size, 1996-1997
 Newsletter Editorial Board 1998-2000
Continuing Education By Remote Means Subcommittee, 1998-present
Representative, European Organization for Medical Physics, 1998-2005
Statistics Committee, 1998-2001
IOMP Representative, 2001-present
CRCPD Educational Liaison, 2001-present
Chair Ad Hoc Committee for WEB-based Continuing Education, 2000
Ad Hoc Committee: The role of the diagnostic medical physicist in the AAPM, 2001-2004
Ad Hoc Committee Governance of the AAPM, 2002-2005
President-Elect Designate, 2002
President-Elect, 2003
President, 2004
Chairman of the Board, 2005
Rules Committee, 2005-present
International Educational Activities Committee, Chair, 2006
Awards and Honors Committee, 2006

American Association of Physics Teachers
 Program Chairman, South Atlantic Coast Meeting, Charleston, SC, April 1988
 AAPM Alternate Liaison, 1995-2005

American Board of Radiology
 Guest Examiner, 1996
 Examiner, 1997, 1998, 1999, 2000
 Physics Exam Restructuring Committee, 1997-1999
 Physics Recertification Committee, 1998-1999
 ABR/ACR Committee on Competence (AAPM Representative), 2001-2005
 Radiologist Physics Exam Committee, 2001-present
 Physics MOC Committee, 2004
 Trustee, 2006

American College of Radiology
 Committee for Physics Education in Mammography, 1991-1994
 Medical Physics Continuing Education Committee, 1993-1999
 Representative to CAMPEP, 1994-2001
 Co-Director 1996 Mammography Physics Symposium
 Independent Medical Physicist to ACR MRI Accreditation Program, 1996-present
 Co-Director 1998 ACR Standards Symposium
 Physics Reviewer, CT Accreditation Program, 2002-present
 Government Relations Committee, 2002-2006

American Institute of Physics
 Cuban-American Physics Cooperation Working Group, 2000

Commission for the Accreditation of Medical Physics Education Programs
 President and Chairman, 2001
 Board of Directors, 1994-2001
 ACR Representative, 1994-2001
 Board Representative, Graduate Education Program Committee, 1996-1998

Board Representative, Continuing Education Committee, 1999-2001

Council of Scientific Society Presidents
Elected 2003

Council of Radiation Program Control Directors
Radiation Protection Advisory Council, 2004
AAPM Educational Liaison, 1995- 2006

Radiological Society of North America
Refresher Course Committee, 1997-2001
Education Council, 1998-2002
Ad Hoc Group on Statistic Information, 2001
WEB Site Radiation Effects Subcommittee, Chairman, 2001
Public Information Advisors Network, 2003-present
3rd Vice President (2006-2007)

Sigma Xi

Society of Nuclear Medicine

Society for Computer Applications in Radiology

STATE:

South Carolina Radiological Society
Technology Committee 1993-2000
Physics and Radiation Safety Committee, 1996
Delegate, Council of Radiation Program Control Directors, 1995, 1996, 1998

EDITORIAL POSITIONS:

Book Reviewer for the American Journal of Roentgenology, 1977-1998
Reviewer for Medical Physics, 1981-1983, 1998, 2005
Reviewer for Computers in Physics, 1988-1990
AAPM Newsletter Editorial Board, 1997-2000
Reviewer for Radiographics, 1998- present
Reviewer for Radiology, 2000-present
Editorial Board, Physica Medica, 2002-2006

EXTRAMURAL GRANTS:

American College of Radiology, Magnetic Resonance Phantom Testing (1%), 1997-2008
Varian, Low Dose Radiographic Imaging (1%), 1999-2000
SCUREF Assistance with SRS Environmental Forums, P.I., 3/1/93-2/28/94, \$15,511
Miles Division of AGFA, Evaluation of IMPAX Ultrasound PACS system. P.I. 11/92-10/95, \$100,000
DOE, Evaluation of Worker Safety at DOE Facilities 1994-1995, Co-Investigator (25% Salary Support)
SCUREF Evaluation of Digital Radiography, 1995-1996, Co-Investigator (10% Salary Support)
Role of Image Processing on PACS - ROC Analysis of MUSICA Contrast Enhancement Algorithm. \$2,750 awarded to Will Dunn, B.S. (Medical Student) by MUSC. Co-P.I. Kenneth Spicer, M.D., Ph.D. and G. Donald Frey, Ph.D.

SCUREF Evaluation of Medical Isotope Production with APT, January-June 1997, Co-Investigator (9% salary support)

ACADEMIC COMMITTEE ACTIVITIES:

University:

MUSC - Radiation Control Council, 1980-present
VAH - Radiation Safety Committee, 1976-1995
Advisory Committee for Biometry Imaging and Signal Processing Laboratory, 1991
MUH Clinical Information Systems Steering Committee, 1990-1997
Committee Member (15 Ph.D. Dissertation Committees, 3 Master's Thesis Committees)

College:

Dean's Representative, MUSC Safety Committee, 1992-present
Member, MUSC Faculty Senate - SRP Relations Committee, 1990

Department:

NMR Research Committee, MUSC, 1985-1988
SPACE Committee, 1990-1993
Radiology Quality Assurance Committee, 1989-present
Chairman, Quality Control Committee, 1988-1994
Policy and Procedures Committee, 1993-present
Research Committee, 2000

MAJOR TEACHING RESPONSIBILITIES:

Radiology Conferences
New Residents Lectures
Medical Physics Course for Radiology Residents
Medical Student Radiology Elective

INVITED LECTURES (PAST THREE YEARS):

Recent Developments in Screen Film Mammography, **Frey, GD**, SE-AAPM Mammography Symposium, Callaway Gardens, GA, March 2003 (Invited Presentation)

State of the AAPM, **Frey, GD**, SE-AAPM Meeting, Callaway Gardens, GA, March 2003 (Keynote Speaker)

Screening & Screening CT, **Frey, GD**, CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

CT Quality Assurance, **Frey, GD**, CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

PET Imaging: Fundamentals and Imaging Techniques, **Frey, GD**, CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, RAMPS Meeting, New York City, NY, September 2003 (Invited Speaker)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, DV-AAPM Meeting, Philadelphia, November 2003 (Invited Speaker)

You Take the Call: Answering Questions about Radiation From the Public and Press, **Frey, GD**, Wagner, LK, Pirovano, D, Radiological Society of North America, Chicago, IL, December, 2003 (Refresher Course - Invited Presentation)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, Southern California-AAPM Meeting, Los Angeles, CA, January, 2004 (Invited Speaker)

CR Quality Assurance – Agfa, **Frey, GD**, Conference of Radiation Program Control Directors, Bloomington, MN, May, 04

CT Modern Developments and Clinical Applications, **Frey, GD**, Conference of Radiation Program Control Directors, Bloomington, MN, May, 04

You Take the Call – Dealing with the Press and Public, , **Frey, GD**, American College of Medical Physics, Scottsdale, AZ, June, 04

Nuclear Medicine Lectures (Visiting Professor Eight Lectures) ,**Frey, GD**, International Center for Theoretical Physics, Trieste, Italy, September 2004

CT Scanning, **Frey, GD**, Meeting of the Association of Black & Hispanic Physicists, Orlando, FL, February 05

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, Florida Chapter AAPM, Orlando, FL, February 2005

Should Medical Physicists Seek Provider Status, **Frey, GD**, Florida Chapter AAPM, Orlando, FL, February 2005

CT Radiation Dose & Image Quality, **Frey, GD**, Joint Meeting North & South Carolina ACR, Charleston, SC, March 2005

CT – A Marriage of Physics, Engineering & Medicine, **Frey, GD**, South Carolina State University (Visiting Professor), Orangeburg, SC, September 2005

CT – A Marriage of Physics, Engineering & Medicine, **Frey, GD**, Canisius (Distinguished Visiting Professor), Buffalo, NY, September 2005

Does Ionizing Radiation Cause Cancer?, **Frey, GD**, Canisius (Distinguished Visiting Professor), Buffalo, NY, September 2005

AAPM Resources for International Education, **Frey, GD**, International Meeting on Physics and Sustainable Development, Durban, South Africa, October, 2005

Challenges in Nuclear Imaging, **Frey, GD**, RSNA, Chicago, IL, November 2005, (Refresher Course)

BEIR VII: The Implications of the Report for the Future of Medical Imaging, Frey, GD, CRCPD, Detroit, MI, May, 2006 (Invited Speaker)

Evaluation of PET Shielding (Invited Speaker), Frey, GD, AAPM Annual Meeting, Orlando, FL, July, 2006

Internet Resources for Education (Invited Speaker), Frey, GD, AAPM Annual Meeting, Orlando, FL, July, 2006

Evaluation of PET Shielding (Invited Speaker), Frey, GD, World Congress of Medical Physics and Bioengineering, Seoul, Korea, August, 2006

Nuclear Medicine Lectures (Visiting Professor Eight Lectures), **Frey, GD**, International Center for Theoretical Physics, Trieste, Italy, September 2006

Challenges in Nuclear Imaging, **Frey, GD**, RSNA, Chicago, IL, November 2006, (Refresher Course)

BIBLIOGRAPHY:

A. ABSTRACTS PUBLISHED:

Nuclear Structure Effects in the Internal Conversion Process of the 81 keV Transition in ^{133}Cs by FT Avignone III and **GD Frey**, Annual Meeting of the American Physical Society, New York, February 1968.

Search for Anomalous Internal Conversion in ^{133}Cs by FT Avignone III, **GD Frey**, J Trueblood, and LD Hendrick, Division of Nuclear Physics Meeting of the American Physical Society, Boulder, CO, October 1969.

Internal Conversion and Gamma-Ray Studies in ^{103}Rh by **GD Frey**, and FT Avignone III, Southeastern Section on the American Physical Society, University of Florida, Gainesville, FL, November 1969.

Directional Correlation Studies in ^{103}Rh by **GD Frey** and FT Avignone III, Spring Meeting of the American Physical Society, Washington DC, April 1970.

The Effects of Dose Fractionation on Cellular Kinetics by EL Travis, CJ Klobukowski, JO Fenn, and **GD Frey**, Radiation Research Society, St. Louis, MO, May 1973.

Use of the Digital Computer for Teaching Dosimetric Physics by **GD Frey**, JO Fenn, and EL Travis, Summer Meeting of the American Association of Physics Teachers, Reno, NV, June 1973.

Radiotherapeutic Implications of In Vitro Dose Fractionation Studies by EL Travis, CJ Klobukowski, JO Fenn, and **GD Frey**, Radiological Society of North American, Chicago, IL, November 1973.

RAMI - A Computer Program for the Management of Radioactive-Materials Inventories by **GD Frey**, and JO Fenn, Fourth International Conference on Medical Physics, Ottawa, Canada, July 1976.

A Comparison of Methods for Determining the Venous Angle by **GD Frey**, GD Hungerford, and P Ross, Fourth International Conference on Medical Physics, Ottawa, Canada, July 1976.

A Comparison of Computed Tomographic Scanners by **GD Frey**, JD Wise Jr., and Paul Ross, Radiologic Society of North America, Chicago, IL, November 1977.

Evaluation of Computed Tomographic Units by **GD Frey**, JD Wise Jr., and P Ross, The Society of Photooptical Instrumentation Engineers, Toronto, Ontario, Canada, March 1979.

Performance Characteristics of Computed Tomographic Instrumentation by **GD Frey**, JD Wise Jr., and P Ross, Association of University Radiologists, Rochester, NY, May 1979.

Use of Computers in the Teaching of Radiation Therapy Dosimetry by **GD Frey**, JO Fenn, and AJ Weick, Third Annual Symposium on Computer Applications in Medical Care, Washington DC, October 1979.

An Iterative Computer Routine for X-ray Spectra Generation: Technique and Application by JO Fenn, **GD Frey**, and WG Gajewski, Third Annual Symposium on Computed Applications In Medical Care, Washington DC, October 1979.

Low Contrast Performance of CT Scanners by **GD Frey**, JD Wise Jr., and P Ross, Radiologic Society of North America, Atlanta, GA, November 1979.

Computer Imaging Artifact: Program Compensation by AP Glassman, **GD Frey**, and AB Glassman, FASEB, Los Angeles, CA, February 1980.

Radioactivity in Routine Laboratory Samples by **GD Frey**, MR Craven, AB Glassman, Radiologic Society of North America, Dallas, TX, November 1980.

Tube by Tube Analysis of Gamma Camera Field Uniformity by **GD Frey**, and AP Glassman, Applications of Optical Instrumentation in Medicine IX, San Francisco, CA, March 1981.

Asymmetric vs. Symmetric Energy Peaking of Tl-201 on Energy Corrected Gamma Cameras by M Ricciardone and **GD Frey**, Southeast Chapter Society of Nuclear Medicine, October 1981.

Bone Mineral Content in Lumbar Vertebrae by Quantitative CAT Scan in Patients with Osteoporosis Due to Postmenopausal State or Induced by Steroids or Heparin by BS Roof, **GD Frey**, and P Ross, Regional Meeting American College of Physicians, Kiawah Island, SC, March 1982.

First-Pass Imaging of the Heart Using Radionuclides by B Wigger, KM Spicer and **GD Frey**, Society of Nuclear Medicine, June 1982.

Evaluation of Hexagonal Collimators by M Sheakley, M Ricciardone, S Condon, and **GD Frey**, Society of Nuclear Medicine, June 1982.

Asymmetric vs. Symmetric Energy Peaking of TI-201 by M Ricciardone and **GD Frey**, Society of Nuclear Medicine, June 1982.

Increasing the Count Rate Capability of Conventional Gamma Cameras by **GD Frey**, KM Spicer, and M Ricciardone, Southeastern Society of Nuclear Medicine, Charlotte, NC, October 1982.

Single-pass Nuclear Ventriculography by Commercially Available Gamma Camera and Computer by KM Spicer **GD Frey**, and WB Wigger, Southeastern Society of Nuclear Medicine, Charlotte, NC, October 1982.

Bone Mineral Content in Vertebral Spongiosa (VS) by Quantitative CAT Scan in Patients with Osteoporosis due to Postmenopausal State or Induced by Glucocorticosteroids or Heparin by BS Roof **GD Frey**, and P Ross, Regional Meeting American Society for Bone Mineral Research, Durham, NC, March 1983.

Quantitative and Qualitative Analysis of the Normal Gallbladder and Common Bile Duct by Ultrasound by JH Stanley, **GD Frey**, RP Gobien, and EQ Seymour, Association of University Radiologists, Mobile, AL, March 1983.

A Computer Interface for Collecting Analog Physiologic Data in a Nuclear Medicine Computer System by **GD Frey**, SJ Nelson and KM Spicer, Society of Nuclear Medicine, St. Louis, MO, June 1983.

Radioactive Contamination of Laboratory Blood Samples by **GD Frey**, AB Glassman and MR Craven, Society of Nuclear Medicine, St. Louis, MO, June 1983.

Early Diagnosis of Adult Respiratory Distress Syndrome by Tc-99m Human Serum Albumin and Portable Probe by KM Spicer, HD Reines, **GD Frey**, and BW Garvin, Society of Nuclear Medicine, St. Louis, MO, June 1983.

The Use of Digital Radiography to Measure Flow by **GD Frey**, I Vujic and P Ross, American Association of Physicists in Medicine; Annual Meeting, New York, July-August 1983.

Imaging Effects of the Radiocontaminant TI-200 from 4-Day Precalibrated Lots of a Commercially Produced TI-201 by M Ricciardone, **GD Frey**, E Levine, L Gordon, and KM Spicer, Southeast Society of Nuclear Medicine, October 1983.

Quantitative Analysis of the Cervical Spinal Canal by Computed Tomography by JH Stanley, GD Hungerford, SI Schabel, **GD Frey**, RP Gobien and P Ross, Radiologic Society of North America, Chicago, IL, November 1983.

Adaptive Noise Cancellation for Change Detection in Image Sequences by A Abutaleb, **GD Frey** and KM Spicer, Northeastern Bioengineering Conference, Boston, MA, March 1985.

The Use of Iodolipid-Phospholipid Aggregates for CT Hepatic Imaging by GL Jendrasiak, **GD Frey**, and M Eghbal, Association of University Radiologists, Nashville, TN, May 1985.

A Computerized Acquisition System to Collect Images Associated with Two Physiologic Signals by **GD Frey**, T Rhee, KM Spicer and C Lam, Society of Nuclear Medicine, Houston, TX, June 1985.

Nuclear Medicine Survey by **GD Frey**, AAPM Summer School, Birmingham, AL, July 1985. (Invited Presentation)

Methods for the Measurement of Bone Mineral Density by **GD Frey**, SE Charter Society of Nuclear Medicine, Hollywood, FL, October 1985. (Invited Presentation)

Use of Medroxyprogesterone to Prevent Bone Loss in Postmenopausal Women; Monitoring of Bone Mineral Content by BS Roof, **GD Frey**, et al. Presented at ASBMR Meeting, Cashiers, NC, April 1986.

Evaluation and Prevention of Bone Mineral Loss in Postmenopausal Women With and Without Osteoporosis by BS Roof, C Hudson, **GD Frey**, P Ross, et al. Presented at the Southern Endocrine Meeting, Atlanta, GA, October 1986.

Microcomputer Assisted Quality Control for the Radionuclide Dose Calibrator by **GD Frey**. Presented at the Society of Nuclear Medicine, Toronto, Canada, June 1987.

Increase in Bone Mineral Content in Lumbar Vertebrae in Postmenopausal Women Using Conjugated Estrogen and Medroxyprogesterone by BS Roof, **GD Frey**, P Ross, et al. Presented at the AFCR Meeting, 1987.

A Microcomputer Based Reporting and Database System by MN Bagg, NS Curry, SI Schabel, and **GD Frey**. Presented at the Association of University Radiologist Meeting, April 1988.

A Comparison of Radiation Dose from External Sources of Gd-153 and Eu-155 by **GD Frey**, C Starr, C Lam, and KM Spicer. Presented at the World Congress on Medical Physics and Biomedical Engineering, San Antonio, TX, August 1988.

The Use of Rare Earth Filtration in Digitally Enhanced High Milleamperage Fluoroscopy by **GD Frey**, RA Miller, and RC Holgate. Presented at the World Congress on Medical Physics and Biomedical Engineering, San Antonio, TX, August 1988.

Effects of Proliferation on Model Predictions of Tumor Response by PN Yi, KH Cho, JO Fenn, J Wise, **GD Frey**, et al. Presented at the American Society of Therapeutic Radiation Oncologists Meeting, 1988.

Medroxyprogesterone (MPA) in Postmenopausal Women Increases Bone by Dual Photon Absorptiometry, Decreases Lipids and Lipoproteins and Decreases Trabecular Bone by Quantitative CAT Scan in Lumbar Spine by BS Roof, **GD Frey**, et al. Presented at the American Federation for Clinical Research, 1988.

Disparity in Longitudinal Measurements of Bone Mineral in Lumbar Spine by Quantitative CAT Scan and by Dual Photon Absorptiometry in Women on Medroxyprogesterone by BS Roof, **GD Frey**, et al. Presented at the American Society for Bone and Mineral Research, 1988.

Flood Radionuclide Choice for Dual Radionuclide SPECT Imaging Using Tc-99m Based Cardiac Agent by Starr CW, **Frey GD**, Lam CF, Spicer KM. Presented at 36th Annual Meeting SNM, St. Louis, MO, June 1989.

Using the Gamma-Camera As A Sensitive Sample-Counting Device by **Frey GD**. Presented at 31st Annual Meeting of AAPM, Memphis, TN, July 1989.

Applications of Statistical Software to Routine Quality Control Problems in Radiology by **Frey GD** and Miller R. Presented at RSNA, Chicago, IL, November 1989.

Worthington C, Jenrette J, Fenn J, **Frey GD**, Wise J, Starr C, Nelson S, Shoer R, Curé J, Cuddy B, Geilfuss C: Linear Accelerator Based Radiosurgery Using the Leksell Stereotactic System and Dynamic Rotation. Presented at the International Stereotactic Radiosurgery Symposium, Pittsburgh, PA, June 1991.

X-ray Generator Calibration and Evaluation by **Frey GD**. ACR National Breast Care Meeting, Boston, MA, April 1992. (Faculty)

Workshop on Mammography Equipment Calibration and Quality Control by **Frey GD**, High M, and Windham JP. J. ACR National Breast Care Meeting, Boston, MA, April 1992. (Faculty)

Image Quality Evaluation Mammography Registry Review by **Frey GD**. Greenville, SC, June 1992. (Invited presentation)

X-ray Generator Calibration and Evaluation by **Frey GD**. ACMP Meeting, Lake of the Ozarks, MO, June 1992. (Faculty)

Workshop on Mammography Equipment Calibration and Quality Control by **Frey GD**, High M, Dare J and Windham JP. ACMP Meeting, Lake of the Ozarks, MO, June 1992. (Faculty)

Integrated Computer Systems for Radiology Department Management by **Frey GD**, Totaro S, Spicer KM, Huneycutt D, Leith D, Starr CW, Shuler R. SCAR Baltimore, MD, June 1992.

A Compton Scattering Correction Method Based on Prediction Process and Cubic Spline for SPEC Correction. Chen EQ, **Frey GD**, Spicer KM, and Lam C. SNM Annual Meeting, Los Angeles, CA, June 1992.

Contrast Enhancement of Mammograms by Image Processing. Ziong L, Lam C, **Frey GD**, and MR Croley. SPIE Meeting, San Diego, CA, April 1993.

Digital Image Quality: A Contrast Detail Study Using the Leeds Phantom. **Frey GD**, Starr CW, and Usher LB. CAR Meeting, Berlin, June 1993.

Mammographic Generator Testing. **Frey, GD** SWAAPM Acapulco, Mexico, September 1993 (Invited Presentation)

Radium Hound: The Radium Detective Work of Dr. Robert B. Taft, **Frey GD**, RSNA, Chicago, IL, December 1993

"Radium Hound": The Radium Detective Work of Dr. Robert B. Taft, **Frey GD**, RSNA, Chicago, IL, December 1993 (Scientific Exhibit)

Multimedia Support for Radiologic Technologists: Design and Utility of a Computer-Assisted Support System. Symposium for Computer-Assisted Radiology (SCAR '94). Starr CJ, **Frey GD**, Shultz J & Gentry C, Winston-Salem, NC, June 1994.

Evaluation of a Dedicated Ultrasound PACS System, Symposium for Computer-Assisted Radiology (SCAR '94) **Frey GD**, Wagner AJ, Olinger RE & Starr CJ, SCAR 94, Winston Salem, NC, June 1994

Quality Control for Teleradiology. **Frey GD**, Olinger R, Young J, Spicer KM, Conway W, RSNA, Chicago, IL, November 1995

Mammography Physicist Tests, **Frey GD**, Radiological Society of North America, Chicago, IL, December 1996 (Invited Presentation - Refresher Course)

Mammography Physicist Tests, **Frey GD**, Radiological Society of North America, Chicago, IL, December 1997 (Invited Presentation - Refresher Course)

Mammography Phototimer Testing. Frey, GD, American Association of Physicists in Medicine, San Antonio, TX, August 1998 (Invited Presentation)

Mammography Physicist Tests, **Frey GD**, Radiological Society of North America, Chicago, IL, December 1998 (Invited Presentation - Refresher Course)

Mammography Phototimer Testing, Frey, GD, European Congress of Radiology, Vienna, Austria, March 1999

Soft Copy Displays - Physics Testing, Frey, GD Southeast -AAPM, Atlanta, GA, March 1999 (Invited Presentation)

Teleradiology, Frey, GD & Spicer KM, Society for Computer Assisted Radiology, Houston, TX, May 1999 (Invited Presentation)

PACS - The MUSC Experience, Frey, GD, New England - AAPM, Boston, MA, June 1999 (Invited Presentation)

Mammography Phototimer Testing, Frey, GD, New England - AAPM, Boston, MA, June 1999 (Invited Presentation)

PACS - The MUSC Experience, **Frey, GD**, AAPM Summer School, Sonoma, CA, June 1999 (Invited Presentation)

Introduction to Digital Imaging, **Frey, GD**, SCAR, Philadelphia, PA, June 2000 (Invited Presentation)

Writing a Request for Proposal, **Frey, GD**, SCAR, Philadelphia, PA, June 2000 (Invited Presentation)

Hill, JG, Samei, E, Southgate, W, **Frey, GD**, Heaton, CM & Bloodsworth, GA, Clinical Evaluation of a Solid-State Radiographic System for Neonatal Applications: Preliminary Results, RSNA, Chicago, IL, November 2000

Samei, E, **Frey, GD**, Hill, JG, Southgate, W & Bloodsworth, GA, Evaluation of a Solid-State Radiographic System for Neonatal Applications, RSNA, Chicago, IL, November 2000

Hill JG , Samei E., Southgate W., **Frey GD**, Bloodworth GA: Clinical Evaluation of a Solid-state Radiographic System for Neonatal Applications. American Pediatric Society/ Society for Pediatric Research, April 2001. Pediatric Research 2001; 49: 357A.

Frey, GD, Samei, E, Hill, JG, & Southgate, W, Evaluation of a Solid-State Radiographic System for Neonatal Applications, European Congress of Radiology, Vienna, Austria, March 2001

Professional Development of Medical Physicists in the United States & Canada: The Role of CAMPEP, **Frey, GD**, European Congress of Medical Physics & Clinical Engineering, Belfast, September 2001 (Invited Presentation)

Qualifications of Trained Medical Physicists from Other Countries for Work in the United States of America, **Frey, GD**, European Congress of Medical Physics & Clinical Engineering, Belfast, September 2001 (Invited Presentation)

Recent Developments in Screen Film Mammography, **Frey, GD** ,SE-AAPM Mammography Symposium, Callaway Gardens, GA, March 2003 (Invited Presentation)

State of the AAPM, **Frey, GD** ,SE-AAPM Meeting, Callaway Gardens, GA, March 2003 (Keynote Speaker)

Screening & Screening CT, **Frey, GD**, CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

CT Quality Assurance, **Frey, GD** , CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

PET Imaging: Fundamentals and Imaging Techniques, **Frey, GD** ,CRCPD Meeting, Anaheim, CA, May 2003 (Invited Presentation)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, RAMPS Meeting, New York City, NY, September 2003 (Invited Speaker)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, DV-AAPM Meeting, Philadelphia, November 2003 (Invited Speaker)

You Take the Call: Answering Questions about Radiation From the Public and Press, **Frey, GD**, Wagner, LK, Pirovano, D, Radiological Society of North America, Chicago, IL, December, 2003 (Refresher Course - Invited Presentation)

Forces & Futures: The Effects of Computer Technology on Diagnostic Medical Physics Productivity, **Frey, GD**, Southern California-AAPM Meeting, Los Angeles, CA, January, 2004 (Invited Speaker)

CR Quality Assurance – Agfa, **Frey, GD**, Conference of Radiation Program Control Directors, Bloomington, MN, May, 04

CT Modern Developments and Clinical Applications, **Frey, GD**, Conference of Radiation Program Control Directors, Bloomington, MN, May, 04

You Take the Call – Dealing with the Press and Public, , **Frey, GD**, American College of Medical Physics, Scottsdale, AZ, June, 04

CT Scanning, **Frey, GD**, Meeting of the Association of Black & Hispanic Physicists, Orlando, FL, February 05

AAPM Resources for International Education, **Frey, GD**, International Meeting on Physics and Sustainable Development, Durban, South Africa, October, 2005

Challenges in Nuclear Imaging, **Frey, GD**, RSNA, Chicago, IL, November 2005, (Refresher Course)

BEIR VII: The Implications of the Report for the Future of Medical Imaging, **Frey, GD**, CRCPD, Detroit, MI, May, 2006 (Invited Speaker)

Evaluation of PET Shielding (Invited Speaker), **Frey, GD**, AAPM Annual Meeting, Orlando, FL, July, 2006

Internet Resources for Education (Invited Speaker), **Frey, GD**, AAPM Annual Meeting, Orlando, FL, July, 2006

Evaluation of PET Shielding (Invited Speaker), **Frey, GD**, World Congress of Medical Physics and Bioengineering, Seoul, Korea, August, 2006

PM Resources for International Education, **Frey, GD**, World Congress of Medical Physics and Bioengineering, Seoul, Korea, August, 2006

Challenges in Nuclear Imaging, **Frey, GD**, RSNA, Chicago, IL, November 2006, (Refresher Course)

B. PUBLICATIONS IN PEER-REVIEWED JOURNALS

Avignone III FT, and **Frey GD**: Angular Correlation and Distribution Attenuation Coefficients for Planar and Coaxial Ge(li) Detectors. The Review of Scientific Instruments 39:1941-1943, 1968.

Avignone III FT, **Frey GD**, and Hendrick LD: Internal Conversion Penetration Effects in M1 Transitions of ^{133}Cs . Physical Review C 1:635-643, 1970.

Avignone III FT, and **Frey GD**: Internal Conversion and - Directional Correlation Studies in the Decay of ^{103}Ru . Physical Review C 4:912-918.

Fenn JO, Keene MS, Wallace M, **Frey GD**, and Travis EL: A Comparison of Large and Small Computers for Radiation Therapy Planning. Radiology 113:429-433, 1974.

Holbert CL, **Frey GD**, Levkoff AH, and Travis EL: Radiographic Aspects of the Newborn Nursery: Techniques and Safety. J. Pediatr 81:968-72, 1975.

Fenn JO, **Frey GD**, and Gajewski WG: An Iterative Computer Routine for X-ray Spectra Generation: Technique and Applications. Proceedings IEEE Computer Society (Computer Applications in Medical Care), pp. 624-630, 1979.

Frey GD, Fenn JO, and Weick AJ: Use of Computers in the Teaching of Radiation Therapy Dosimetry. Proceedings IEEE Computer Society (Computer Applications in Medical Care), pp. 187-188, 1979.

Frey GD, Wise Jr. JD, and Ross P: Evaluation of Computed Tomographic Units. Proceedings SPIE 173:216-224, 1979.

Frey GD, Wise Jr. JD. and Ross P: Evaluation of Computed Tomographic Units. Optical Engineering 19:392-296, 1980.

Frey GD, and Glassman AP: Tube by Tube Analysis of Field Uniformity for Gamma Cameras. Proceedings Society of Photo-optical Instrumentation Engineers 273:188-191, 1981.

Sisco DL, **Frey GD**, Spicer KM, and Lam C: Spatial and Temporal Background Correction Techniques Applied to First Pass Radionuclide Ventriculography. Proceedings of the I.E.E.E. Computer Society pp. 178-180, 1982.

Roof BS, **Frey GD**, Hudson C, Ross P, and Gross A: Use of Osteocalcin and a Short Infusion of Calcium to Predict Postmenopausal Women at Risk to Lose Vertebral Spongiosa Rapidly. Mauritas 6:171, 1984.

Stanley JH, Sanchez F, **Frey GD**, and Schabel SI: Computed Tomography Evaluation of Pheochromocytoma in Pregnancy. The Journal of Computed Tomography 9:369-372, 1985.

Reinig JW, Gordon L, **Frey GD**, Garrick E and Daniel III, WT: Glomerular Filtration Rate in Transplantation Patients: Estimation of Renal Function Using Tc-99m DTPA. Radiology 156:505-507, 1985.

Frey GD: Methods for the Measurement of Bone Mineral Density. Cardiovascular Imaging; Southeastern Chapter Society of Nuclear Medicine, 1985.

Jendrasiak GL, **Frey GD**, and Heim RC: Liposomes as Carriers of Iodolipid Radiocontrast Agents for CT Scanning of the Liver. Investigative Radiology 20:995-1002, 1985.

Abutaleb A, **Frey GD**, and Spicer KM: Adaptive Noise Cancellation for Change Detection in Image Sequences. Proceedings of the 11th Northeastern Bioengineering Conference, 1985.

Abutaleb A, **Frey GD**, and Spicer KM: Improvement in Change Detection in Imaging Sequences. Proceedings IEEE, 1986.

Spicer KM, Reines DH, and **Frey GD**: Diagnosis of Adult Respiratory Distress Syndrome with Tc-99m Human Serum Albumin and Portable Probe. Crit Care Med 14(8):669-676, 1986.

Stanley JH, Hungerford GD, Schabel SI, **Frey GD**, Gobien RP, and Ross P: Quantitative Analysis of the Cervical Spinal Canal by Computed Tomography. Neuroradiol 28:139-143, 1986.

Frey GD: Using the Gamma Camera For Counting Contamination Survey Wipes. J Nucl Med Tech 17(4):186-188, 1989.

Worthington C, Jenrette J, Fenn J, **Frey GD**, Wise J, Starr C, Nelson S, Shoer R, Curé J, Cuddy B, Geilfuss C: Linear Accelerator Based Radiosurgery Using the Leksell Stereotactic System and Dynamic Rotation. Southern Journal of Medicine, 1991.

Nuclear Medicine Surveys, **Frey GD**, In Expanding the Role of Medical Physics in Nuclear Medicine. (eds. **Frey GD** and Yester MV) American Institute of Physics, Woodbury, NY, 1991.

Screen Film Mammography: Equipment Acceptance Testing and Quality Control, **Frey GD**, In Screen Film Mammography, Imaging Consideration and Medical Physics Responsibilities. (eds. Barnes GT, and **Frey GD**) Medical Physics Publishing, Madison, WI, 1991.

Mammography Acceptance Testing and Quality Control Documentation and Reports, Barnes GT and **Frey GD**. Screen Film Mammography, Imaging Consideration and Medical Physics Responsibilities. (eds. Barnes GT, and **Frey GD**) Medical Physics Publishing, Madison, WI, 1991.

Integrated Computer Systems for Radiology Department Management. **Frey GD**, Totaro SD, Leith DL, Huneycutt DL, Stavrinakis K, Rogers TK, Shuler RM and Spicer KM. Computer Applications to Assist Radiology. Eds. Brody WR and Johnston GD. Symposium Foundation Publ., Carlsbad, CA, 1992.

Digital Image Quality: A Contrast Detail Study Using the Leeds Phantom. **Frey GD**, Starr CW, and Usher LB. Computer Assisted Radiography Proceedings, Springer-Verlag, Berlin, 1993

Frey GD. X-ray Generators - Calibration & Evaluation in Physicist Syllabus, American College of Radiology, Reston, VA, 1994.

A Preliminary Review of Environmental Safety and Health Programs at Six Selected DOE Weapons Sites. Hoel, DG, ..., **Frey, GD**, ... Consortium for Environmental Risk Evaluation, January 1995

Quantitative mammography contrast threshold test tool. Wagner, AJ and **Frey, GD** Medical Physics 22(127-132),1995

Breast Dose Variability in a Biracial Population Undergoing Screening Mammography. Schubauer-Berigan, MK, Baron, L, **Frey, GD** and Hoel, DG Radiation Protection Dosimetry 98(417-424), 2002

Mammography Dose In Relation to Body Mass Index, Race and menopausal Status. Schaubauer-Berigan, MK, **Frey, GD**, Baron, L and Hoel, DG, Radiation Protection Dosimetry 98(425-432), 2002

C. BOOKS, BOOK CHAPTERS and PUBLISHED REPORTS:

Selby JB, **Frey GD**, Cooper JF, and Klobukowski CJ. Current Nuclear Medicine. Medical Examination Publishing Company, Flushing, NY, 197

Frey GD, and Klobukowski CJ. Nuclear Medicine Technology. Medical Examination Publishing Company, NY, 1974.

Selby JB, and **Frey GD**. Self Assessment of Current Knowledge in Nuclear Medicine. Medical Examination Publishing Company, Flushing, NY, 1977.

Frey GD, and Klobukowski CJ. Nuclear Medicine Technology, Second Edition. Medical Examination Publishing Company, 1980.

Frey GD, Ricciardone M, Sheakley M, and Klobukowski CJ. Nuclear Medicine Technology Examination Review, Third Edition. Elsevier Science Publishing Co., Inc., New York, 1986.

Frey GD, and Yester MV (eds.). Expanding the Role of Medical Physics in Nuclear Medicine. American Institute of Physics. Woodbury, NY, 1991.

Barnes GT, and **Frey GD** (eds.). Screen Film Mammography-Imaging Considerations and Medical Physics Responsibilities. Medical Physics Publishing, Madison, WI, 1992.

Gray JE, ..., **Frey GD**, The Role of the Clinical Physicist in Diagnostic Radiology. American Association of Physicists in Medicine, College Park, MD, 1994. (Task Group Report)

Frey GD and Sprawls P (eds.) The Expanding Role of Medical Physics in Diagnostic Imaging. American Association of Physicists in Medicine, College Park, MD, 1997.

Frey GD, PACS the MUSC Experience, Practical PACS, American Association of Physicists in Medicine, College Park, MD, 1999

Boone, JM,, **Frey GD**,.....Quality Control in Diagnostic Radiology, American Association of Physicists in Medicine Report 74, AAPM, College Park, MD, 2002

COMMUNITY SERVICE (Last 3 years):

Palmetto Breast Chapter

Lecture – Detection of Breast Cancer, February, 2004

Lecture – Digital Mammography Benefits, March, 2006

RSNA On the Air – 2006

Medical Physics (SC News Network, WSSX, WSUY, WTMA, WXTC)