

### AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE



### 58<sup>th</sup> Annual Meeting & Exhibition | Washington, DC

August 1, 2016 • 6:30 pm Ballroom A, Level 3 Walter E. Washington Convention Center



# COMMUNICATING OUR VALUE

**The American Association of Physicists in Medicine** is the premier organization in medical physics, a broadly-based scientific and professional discipline encompassing physics principles and applications in biology and medicine.

The mission of the American Association of Physicists in Medicine is to advance the science, education and professional practice of medical physics.



### 2016 PROGRAM

Welcome and Presentation of Awards Bruce H. Curran, MEng, AAPM President Honoring Deceased AAPM Members AAPM Fellowships, Grants & Scholarships **Research Seed Funding Initiative** Low Dose CT Grand Challenge Jack Fowler Junior Investigator Award Science Council Junior Investigator Award John R. Cameron Young Investigator Awards AAPM Award for Innovation in Medical Physics Education Journal of Applied Clinical Medical Physics Paper Awards Moses and Sylvia Greenfield Paper Award Farrington Daniels Paper Award Honorary Membership Recognition of 50+ Years of AAPM Membership Fellows John S. Laughlin Young Scientist Award Marvin M.D. Williams Professional Achievement Award Edith H. Quimby Lifetime Achievement Award William D. Coolidge Gold Medal Closing Remark Reception immediately following

### AAPM FELLOWSHIPS, GRANTS & SCHOLARSHIPS

#### The Fellowship for Graduate Study in Medical Physics

Awarded for the first two years of graduate study leading to a doctoral degree in Medical Physics. The 2016 recipient is:

#### Rebecca Meerschaert — Wayne State University

#### 2016/2017 AAPM/ERF-SNMMI Nuclear Medicine Residency Grant

The goal is to provide matching grant support for residency training programs that will be CAMPEP-accredited in nuclear medicine by the time the resident completes his/her training. The recipients are:

Beth A. Harkness — Henry Ford Hospital Nand K. Relan — SUNY Stony Brook

#### The American Association of Physicists in Medicine (AAPM) Diversity Recruitment through Education and Mentoring Program "DREAM" (formally MUSE)

Designed to increase the number of underrepresented groups in medical physics by creating new opportunities, outreach and mentoring geared towards diversity recruitment of undergraduate students in the field of medical physics. Students participating in the program are placed into summer positions that are consistent with their interests. Students are selected for the program on a competitive basis to be DREAM fellows. Each DREAM fellow receives a stipend from AAPM. The DREAM Fellows for 2016 are:

#### Soleil Hernandez, Celina Liyao Li, Khyana T. Price and Julian Vaughn Roberts

#### Summer Undergraduate Fellowships

Designed to provide opportunities for undergraduate university students to gain experience in medical physics by performing research in a medical physics laboratory or assisting with clinical service at a clinical facility. In this program, AAPM serves as a clearinghouse to match exceptional students with exceptional medical physicists, many of whom are faculty at leading research centers. Students participating in the 10-week program are placed into summer positions that are consistent with their interests. Students are selected for the program on a competitive basis to be an AAPM summer fellow. Each summer fellow receives a stipend from AAPM. Additional support was provided by the Delaware Valley, North Central and the Northwest Chapters of AAPM. The Summer Undergraduate Fellows for 2016 are:

Irene Duba, William S. Ferris, Jacob W. Geiger, Alexander Scot Giuffrida, Adam Robert Harpley, Sydney Anna Jupitz, Andrew Scott McGuffey, Daniel Molenhuis, Daniel James Shinnick, Brad Joseph Stiehl, Stefan M. Stryker, Robert Franklin Turner and Eric M. Wallat

#### Summer School Scholarships

These scholarships are offered to applicants who are early in their careers in medical physics. The 2016 scholarship recipients are:

Dominic DiCostanzo, MS, Leland Page, PhD, Corey Clift, MS, Marija Popovic, PhD, Vrinda Narayana, Ph. and Elizabeth Boehnke, MS

### RESEARCH SEED FUNDING INITIATIVE

These grants are awarded to provide funds to develop exciting investigator initiated concepts, which will hopefully lead to successful longer term project funding from the NIH or equivalent funding sources. It is expected that subsequent research results will be submitted for presentation at future AAPM meetings. The recipients for 2016 are:

Fada Guan, PhD — University of Texas, MD Anderson Cancer Center Andrea Ferrero, PhD — Mayo Clinic Rochester Yoann Petibon, PhD — Massachusetts General Hospital

### THE 2016 LOW DOSE CT GRAND CHALLENGE

The 2016 Low Dose CT Grand Challenge, sponsored by AAPM, NIBIB and Mayo Clinic, was held to assess the diagnostic performance of denoising and iterative reconstruction techniques using common low-dose CT patient datasets. The three winners received the highest scores from a human observer study performed for the detection of liver metastases. They will present their work on August 2nd during the Grand Challenges in Medical Imaging and Radiomics Scientific Symposium.

TBD

### JACK FOWLER JUNIOR INVESTIGATOR AWARD

Established in honor of Dr. Jack Fowler, PhD, Emeritus Professor of Human Oncology and Medical Physics, University of Wisconsin. Junior Investigators were encouraged to submit abstracts for the competition. The top scoring Junior Investigator submission determined by abstract reviewers was selected and the award is presented to:

#### Stephen Yip, PhD

### SCIENCE COUNCIL JUNIOR INVESTIGATOR AWARD

An award recognizing outstanding scientific research by Junior Investigators has been established by the AAPM Science Council. The award is based on abstracts submitted to the Scientific Program of the AAPM Annual Meeting, judged according to criteria of significance, innovation, and the potential for major scientific impact in an area of cutting edge interest in medical physics. The 2016 award is presented to:

#### Yawei Zhang, PhD

### JOHN R. CAMERON YOUNG INVESTIGATOR AWARDS

Each year AAPM conducts a Young Investigators' Competition for the Annual Meeting. Young Investigators were encouraged to submit abstracts for the competition. The 10 highest scored Young Investigator submissions determined by abstract reviewers are selected to be presented in a special symposium, in honor of University of Wisconsin Professor Emeritus John R. Cameron, PhD:

TBD

# AAPM AWARD FOR INNOVATION IN MEDICAL PHYSICS EDUCATION

The Award for Innovation in Medical Physics Education is generously supported by a bequest from the estate of Dr. Harold Marcus. It is given for innovative programs in medical physics education of physicists, physicians, ancillary personnel and the public and is presented to:

TBD

### JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS BEST PAPER AWARDS

#### Award of Excellence for an Outstanding Radiation Oncology Article

The Award of Excellence for Outstanding Radiation Oncology Article published in *JACMP* in 2015 is presented to:

#### Robert A. Corns, Vicky W. Huang and Steven D. Thomas Mail

for the paper entitled "Pion effects in flattening filter-free radiation beams," *Journal of Applied Clinical Medical Physics*, 16, 376 (2015).

Award of Excellence for the Best Medical Imaging Article The Award of Excellence for the Best Medical Imaging Article

The Award of Excellence for the Best Medical Imaging Article published in *JACMP* in 2015 is presented to:

#### Mitchell Sommerville, Yannick Poirier and Mauro Tambasco

for their paper entitled "A measurement-based X-ray source model characterization for CT dosimetry computations," *Journal of Applied Clinical Medical Physics*, 16, 386 (2015).

#### Award of Excellence for the Best Radiation Measurements Article

Award of Excellence for the Best Radiation Measurements Article published in *JACMP* in 2015 is presented to:

#### Vikren Sarkar, Brian Wang, Hui Zhao, Bart Lynch, Joshua A. James, Kiernan T. McCullough and Bill J. Salter

for their paper entitled "Percent depth-dose distribution discrepancies from very small volume ion chambers," *Journal of Applied Clinical Medical Physics*, 16, 432 (2015).

#### Editor In Chief Award of Excellence for an Outstanding General Medical Physics Article

Editor In Chief Award of Excellence for an Outstanding General Medical Physics Article published in *JACMP* in 2015 is presented to:

# Keith J. Strauss, John M. Racadio, Todd A. Abruzzo, Neil D. Johnson, Manish N. Patel, Kamlesh U. Kukreja, Mark J.H. den Hartog, Bart P.A. Hoonaert and Rami A. Nachabe

for their paper entitled "Comparison of pediatric radiation dose and vessel visibility on angiographic systems using piglets as a surrogate: anti-scatter grid removal vs lower detector air kerma settings with a grid; a preclinical investigation," *Journal of Applied Clinical Medical Physics*, 16, 408 (2015).

### MOSES & SYLVIA GREENFIELD AWARD

The Moses & Sylvia Greenfield Award for the best paper (other than Radiation Dosimetry) published in *Medical Physics* for 2015 is presented to:

#### Andrew M. Hernandez, J. Anthony Seibert and John M. Boone

for their paper entitled "Breast dose in mammography is about 30% lower when realistic heterogeneous glandular distributions are considered," *Medical Physics*, 42, 6337 (2015).

### FARRINGTON DANIELS AWARD

The Farrington Daniels Award for the best paper on Radiation Dosimetry published in *Medical Physics* in 2015 is presented to:

### Steven T. Bache, Titania Juang, Matthew D. Belley, Bridget F. Koontz, John Adamovics, Terry T. Yoshizumi, David G. Kirsch and Mark Oldham

for their paper entitled "Investigating the accuracy of microstereotacticbody-radiotherapy utilizing anatomically accurate 3D printed rodent-morphic dosimeters," *Medical Physics* 42, 846 (2015).

### HONORARY MEMBERSHIP

Honorary membership into AAPM is bestowed upon individuals to recognize distinguished service that they have provided to other societies that support medical physics. Thus the award not only honors the individual but also strengthens the links between AAPM and the other society. This year, AAPM will grant honorary membership to:

Wilfried De Neve, PhD, MD Anthony L. Zietman, MD

### RECOGNITION OF 50+ YEARS OF AAPM MEMBERSHIP

### FELLOWS

The category of Fellow honors members who have distinguished themselves by their contributions in research, education, and leadership in the medical physics community.

Peter Balter, PhD Evan Boote, PhD Janice Campbell, PhD Yue Cao, PhD Robert Cormack, PhD Magnus Dahlbom, PhD Joseph Deasy, PhD Larry John Filipow, DPhil Jeffrey Brian Fowlkes, PhD Eric Gingold, PhD Jiang Hsieh, PhD David Jaffray, PhD Robert Jeraj, PhD Jennifer Johnson, MS Bruce Libby, PhD Hsiao-Ming Lu, PhD Zheng Feng Lu, PhD Vrinda Narayana, PhD Wayne Newhauser, PhD Richard Popple, PhD Frank Ranallo, PhD Susan Richardson, PhD Timothy Ritter, PhD Anil Sethi, PhD Ke Sheng, PhD Jason Sohn, PhD Srinivasan Vedantham, PhD Jihong Wang, PhD Jacqueline Zoberi, PhD

### JOHN S. LAUGHLIN YOUNG SCIENTIST AWARD

This award recognizes outstanding scientific achievement in medical physics for a young scientist member of AAPM. The award will usually be given to a member under the age of 45 who is no more than 10 years beyond the awarding of his/her doctoral degree. The recipient of the 2016 John S. Laughlin Young Scientist Award is:

#### Arman Rahmim, PhD

### MARVIN M. D. WILLIAMS PROFESSIONAL ACHIEVEMENT AWARD

This award recognizes AAPM members for an eminent career in medical physics with an emphasis on clinical medical physics. The recipient of the 2016 AAPM Marvin M. D. Williams Professional Achievement Award is:

#### Keith Strauss, MSc

### EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD

This award recognizes AAPM members whose careers have been notable based on their outstanding achievements. The recipients for the 2016 Award for Achievement in Medical Physics are:

Wendell Lutz, PhD, Robert Pizzutiello, MS, and Michael Yester, PhD

### WILLIAM D. COOLIDGE GOLD MEDAL

AAPM's highest honor is presented to a member who has exhibited a distinguished career in medical physics, and who has exerted a significant impact on the practice of medical physics. The recipient of the 2016 AAPM William D. Coolidge Medal is:

#### Paul M. DeLuca, Jr., PhD

### HONORARY MEMBERSHIP



#### WILFRIED DE NEVE, PhD, MD

Wilfried De Neve, PhD, MD graduated from Free University Brussels in 1981 and followed with a residency in radiation oncology at Bordet Institute Brussels, Rotterdam's Radiotherapeutic Institute and University Hospital Brussels (UH-Brussels). He took courses in informatics, mechanical engineering and statistics. In September 1986, Dr. De Neve

conducted PhD research (biochemical modulation of radiation) at Wayne State University School of Medicine; Detroit, USA. In October 1988, he returned to Belgium for obligatory military service and was employed as a radiation oncologist at UH-Brussels where he started investigating portal imaging followed by immediate set-up correction.

In September 1993, Dr. De Neve became professor at Ghent University and head of the division of radiation oncology at University Hospital Ghent. He built a team of physicists, engineers and radiation oncologists that focused on improving radiotherapy through an iterative process of physics R & D and clinical trials focusing mostly in head & neck and breast cancer. IMRT allowed avoiding dry-eye syndrome and blindness in sinonasal tumors. His team has determined the dose/ volume relationship of mucosal ulceration, the dose-limiting toxicity of adaptive voxel-based dose-painting as well as the role of persistant smoking and alcohol use. Iterative optimization of prone breast and breast+lymph node irradiation is the second field of R&D. His team contributes to the evidence that prone breast radiotherapy reduces acute toxicity, cosmetic changes and risk for late lung cancer or cardiac mortality as compared to supine techniques.

Wilfried De Neve is a regular teacher at the basic radiation physics, IMRT, IGRT and particle therapy courses of ESTRO. He received ESTRO's Honorary Physicist Award in 2009.



#### ANTHONY L. ZIETMAN, MD

Anthony L. Zietman, MD received his undergraduate training at Oxford University in the UK and then went to medical school at the Middlesex Hospital, London University, graduating in 1983. After residencies in internal medicine and clinical oncology he moved to the Massachusetts General Hospital in Boston, USA for a fellowship in radiation biology. Since joining the staff of the

MGH he has authored over 200 original articles, reviews, and editorials on many aspects of GU cancer. His particular research interests are in the specific roles of active surveillance, brachytherapy, hormone therapy, and proton beam therapy in the treatment of prostate cancer. He also has a long-standing interest in the organ-sparing management of bladder cancer. More recently Dr. Zietman has been writing and speaking about evidence development in oncology and the relationship between economy and culture on the one hand and the practice of radiation oncology on the other.

Dr. Zietman is currently Shipley Professor of Radiation Oncology at Harvard Medical School and is Past-President and Chair of ASTRO. He has a deep interest in medical education and serves as a program director for the Harvard Radiation Oncology Residency Program and as a Trustee of the American Board of Radiology. Since 2011, Dr. Zietman has been the Editor-in-Chief of the International Journal of Radiation Oncology Biology Physics helping to chart its way from a traditional scientific journal to a journal of the future.

### FELLOWS



#### PETER BALTER, PhD

Peter Balter received his PhD degree from the University of Texas Graduate School of Biomedical Sciences in 2003.

After completing his PhD, he joined the Department of Radiation Physics at MD Anderson Cancer Center, where he is now Professor of Radiation Physics and one of two Medical Physics Center Directors. Dr. Balter has served AAPM in many capacities. He is currently a member of TG 201 and TG 265 and serves as an Associate Editor of JACMP. He is certified by the American Board of Radiology in Therapeutic Radiologic Physics. Dr. Balter has published over 75 papers in peer-reviewed journals and is active in education activities.

teaching, research and service roles, including diagnostic medical physics service, resident and araduate student instruction, investigator initiated research projects, and radiation safety program audits. Evan has served AAPM as the Chair of the Ultrasound Committee He has also served on the ACR Committee for Ultrasound Accreditation and as an AAPM liaison to the RSNA Program Committee. He currently serves as Director, Physics and Technology for Spectrum Health, which has administrative responsibility for Diagnostic Physics services to 10 hospitals, a service team of 10 Radiology field engineers and seven imaging technologists in all radiology modalities.



#### JANICE CAMPBELL, PhD

Janice Campbell received both her MS and PhD degrees in Medical Physics from Wayne

State University in Detroit following a BS degree in Nuclear Medicine. This exposure to medical physics was instrumental in developing her passion for teaching. She has been an instructor of medical physics topics at WSU as well as at Oakland University every year since graduation, teaching over 100 courses. She is also a mentor to medical students throughout their



#### EVAN BOOTE, PhD

Evan Boote was born and raised in Northwest Iowa and received a bachelor's degree in Physics from Hope College in Holland,

MI. In 1988, he completed a PhD in Medical Physics from the University of Wisconsin-Madison and joined the Radiology Department faculty at the University of Missouri-Columbia. At MU, Evan served clinical, Capstone research projects at OUWB School of Medicine. Dr. Campbell is certified by the ABR in Therapeutic Radiologic Physics. Her professional interest has more recently focused on radiopharmaceutical therapy and dosimetry. She is the corporate medical physicist for Diagnostic Radiology and Molecular Imaging at Beaumont Health. Janice has been active in the Great Lakes Chapter of AAPM and served on the Board as its Representative from 2009-2011. She is a member of the AAPM PET-CT QA Task Group and the AAPM-RSNA QIBA committee.



#### YUE CAO, PhD

Dr. Cao is a Professor of Radiation Oncology, Radiology, and Biomedical Engineering at

the University of Michigan. She has authored over 100 manuscripts on research primarily related to Imaging as a biomarker in Cancer, Stroke, and Migraine research. She has been the principal investigator on more than 8 NIH grants, as well as grants from other foundations. She leads the functional Imaging group in Radiation Oncology, and is a member of the executive committee of the NIH Quantitative Imaging Network. She was the initial leader of the AAPM working group on Imaging for Therapy Assessment, and has devoted efforts to advancing imaging as a biomarker within AAPM for well over a decade.



#### ROBERT CORMACK, PhD

Robert Cormack received his PhD from Boston University in 1993 followed by a post-doctoral

fellowship at the Joint Center for Radiation Therapy. He is a physicist in the Department of Radiation Oncology at the Dana-Farber Cancer Institute and Brigham and Women's Hospital where he oversees clinical physics efforts. He is an Associate Professor of Radiation Oncology at Harvard Medical School and has been active in the training of the next generation of medical physicists. He has mentored over 20 fellows or residents, helped establish the Harvard Medical Physics Residency Program, and contributes to AAPM's continuing education programs. He has served on multiple AAPM task groups and workgroups. He served as the NEAAPM president and oversees the continuing education aspects of the chapter's meetings. He has published over 90 peer reviewed articles and 9 book chapters.



#### MAGNUS DAHLBOM, PhD

Magnus Dahlbom received his BSc in Physics from Stockholm University in 1982. He did his

graduate research at UCLA in PET Instrumentation and received his PhD in 1987. After a postdoctoral fellowship at the Karolinska Institute he joined the faculty at UCLA in 1989. He is a Full Professor in the Department of Molecular and Medical Pharmacology, Vice-Chair of the Physics and Biology in Medicine graduate program at UCLA and Chief Nuclear Medicine Physicist at the UCLA Medical Center. He is certified by the ABR in Nuclear Medical Physics. Dr. Dahlbom has authored and co-authored close to 150 peerreviewed papers, 11 book chapters and edited two books. He is actively involved in the araduate and radiology residency programs at UCLA where he is teaching Nuclear Medicine Physics. He has lectured at AAPM Summer Schools, organized special symposia on pre-clinical and PET/CT imaging at the AAPM Annual Meeting and was a member of TG 145 Quantitative Imaging Initiative: Quantitative PET/CT Imaging.



#### **JOSEPH DEASY, PhD**

Joseph Deasy received a Ph.D. in Physics from the University of Kentucky, under the supervision of

Marcus McEllistrem and Peter Almond. in 1992. This was followed by a postdoctoral fellowship at the University of Wisconsin-Madison, where he was mentored by Rock Mackie and Jack Fowler. Dr. Deasy spent 11 years in the Department of Radiation Oncology, Washington University in St. Louis, beginning in 1999. In 2005, he became the founding Director of the Division of Bioinformatics and Outcomes Research. In 2008 he was promoted to Professor with tenure. Since 2010, Dr. Deasy has been the Chair of the Department of Medical Physics at Memorial Sloan Kettering Cancer Center, and holder of the Edith A. Haupt Endowed Chair in Medical Physics. Dr. Deasy is the author/ co-author of more than 120 peerreviewed publications and has been the principal investigator of several NIH grants. Dr. Deasy's primary research interests are in predictive modeling of cancer treatment outcomes based on dosimetric, biological, and imaging factors, as well as computational image analysis, proton radiotherapy, and algorithms for optimizing radiotherapy treatment planning.



#### LARRY FILIPOW, DPhil

Larry J. Filipow received his DPhil degree from the University of Oxford, UK, in 1979. He worked afterwards

for a year as an NHS medical physicist at the Churchill Hospital in Oxford. In 1980, he returned to Canada, having been granted a Canadian MRC Fellowship, which he utilized at the University of Alberta. In 1982 he was appointed as the first ever Diagnostic Imaging Physicist in the province of Alberta, employed at the University of Alberta Hospital. He created a radiology resident imaging physics training program which is still ongoing. He also taught main campus courses for the Department of Physics at the University of Alberta for over 10 years. During this period, Dr. Filipow was a member of the AAPM Education Committee, and was local arrangements chair and faculty for the 1992 AAPM Summer School on MRI in Banff, Alberta (the first summer school to be held outside the USA). He was co-director of the 1999 AAPM Summer School on PACS. He turned to full-time private consulting in 2000, and now works on a wide range of radiology projects across Canada.



#### JEFFREY BRIAN FOWLKES, PhD

J. Brian Fowlkes received his PhD degree in physics from the University of Mississippi in 1988.

He came to the University of Michigan that year and is now Professor of Radiology and Biomedical Engineering and Director of the Basic Radiological Sciences Division in the Department of Radiology. He is also the Associate Vice President for Research for Health Sciences. Dr. Fowlkes is currently directing and conducting research in diagnostic and therapeutic ultrasound. He has over 160 peer-reviewed scientific publications and received the Joseph H. Holmes Pioneer Award for Basic Science from the American Institute of Ultrasound in Medicine. He co-directed the 1995 AAPM Summer School on Medical CT and Ultrasound with a follow up RSNA/AAPM Refresher Course series running for six years. He continues to contribute to the AAPM Ultrasound Subcommittee with organization of special sessions on diagnostic and therapeutic ultrasound and imageguided therapy at the AAPM Annual Meetings.



#### ERIC GINGOLD, PhD

Eric Gingold received his PhD degree in Bioengineering from the University of California at Berkeley and San Francisco

in 1992. After completing a Clinical Medical Physics Fellowship at the University of Alabama at Birmingham, he joined the Department of Radiology at the University of Pennsylvania as a diagnostic medical physicist. Dr. Gingold left clinical practice in 1997 and spent 7 years working in industry on the development of digital radiography system hardware and software. In 2004 he joined the faculty of Thomas Jefferson University in Philadelphia, where he is now Associate Professor of Radiology and Director of Imaging Physics. Dr. Gingold has served on numerous AAPM task groups and subcommittees and is currently chair of the Imaging Physics Committee and vice-chair of Science Council. He serves as an Associate Editor of Medical Physics, and represents the AAPM on the Image Wisely Executive Committee.



#### **JIANG HSIEH, PhD**

Jiang Hsieh received his PhD degree from Illinois Institute of Technology in 1989. He joined the Advanced

**Research Department of Siemens** Gammasonics, Inc. in 1984 and later the Applied Science Laboratory of GE Medical Systems in 1989. He is now a Chief Scientist at GE Healthcare and an adjunct Professor in the Medical Physics Department of the University of Wisconsin-Madison. He has over 30 years of experience in medical imaging, holds over 200 US patents, and has authored or co-authored more than 200 articles, book chapters, and textbooks. He taught in the AAPM Summer School, refresher courses at RSNA, short courses at IEEE NSS/MIC, and short courses at SPIE Medical Imaging Conference. He has been an invited speaker at AAPM Annual Meetings, NIBIB Dose Summit, SPIE Computational Imaging, joint AFRL/CMU/Purdue workshop, SIAM Conference on Imaging Science, and various universities and research institutions. He is a Fellow of AIMBE and a Fellow of SPIE.



#### DAVID JAFFRAY, PhD

David A. Jaffray completed his PhD in Medical Biophysics at the University of Western Ontario, Canada, in 1994

and became a Board Certified Medical Physicist in 1999. In 2002, Dr. Jaffray joined the Princess Margaret Hospital in Toronto, as Head of Radiation Physics and a Senior Scientist within the Ontario Cancer Institute. David holds the Fidani Chair in Radiation Physics, and he is the interim Director of Techna Institute of Health Technology Development at the University Health Network. He is a Professor in the Departments of Radiation Oncology, Medical Biophysics, and Institute for Biomaterials and Biomedical Engineering at the University of Toronto. Dr. Jaffray has won several prestigious awards for his research and profound achievements throughout his career. His current research interests focus on the development of novel approaches of targeting and applying radiation therapy and translating these advances to clinical practice.



#### **ROBERT JERAJ, PhD**

Dr. Robert Jeraj is Professor of Medical Physics, Human Oncology, Radiology and Biomedical Engineering at the

University of Wisconsin, Madison, where he leads the Imaging and Radiation Sciences Program at the University of Wisconsin Carbone Cancer Center. He is the Director of the Translational Imaging Research Program that oversees concept development, protocol design, and implementation of imaging in trials incorporating novel anti-cancer drugs. He is also Director of the Wisconsin Oncology Network of Imaging eXcellence (WONIX), a regional clinical trial network that focuses on extensive imaging and molecular biomarker endpoints. Dr. Jeraj is also a Professor at the University of Ljubljana, Slovenia, where he leads a research group of medical physicists. Among other duties, Dr. Jeraj is the Chair of the Working Group on the Future of Medical Physics Research and Academic Training at AAPM, and serves on several national committees, such as the Medical Imaging Drug Advisory Committee at FDA, Biomarker Committee and Experimental Imaging Science Committee at ECOG-ACRIN. and the Bioinformatics and Medical

Physics Committee at NRG Oncology. Dr. Jeraj is an author of over 100 published papers, textbooks and book chapters, and is a frequent invited lecturer and presenter on the use of molecular imaging in therapeutic interventions and general applications of medical physics in radiation and medical oncology.



#### JENNIFER JOHNSON, MS

Jennifer L. Johnson received her MS degree from the University of Kentucky in 1997. She worked

as a medical physicist in Hartford, CT and Wellington, New Zealand. She joined the Department of Radiation Physics at the UT MD Anderson Cancer Center in Houston, TX in 2002 and works as a Senior Medical Physicist and Director of Safety in Radiation Physics. Ms. Johnson has been volunteering on various committees within AAPM since 2009 and is currently chair of Membership, Audit, and the Work Group on Prevention of Errors. She is also a Board of Directors Member-at-Large. She is certified by the American Board of Radiology in Therapeutic Radiologic Physics. She is a member of both the American Society for Radiation Oncology and the American College of Radiology, where she serves on its Radiation Oncology Practice Accreditation Committee. Ms. Johnson has 16 peer-reviewed publications and 23 presentations at conferences.



#### **BRUCE LIBBY**, PhD

Bruce Libby received his PhD in Nuclear Chemistry from the University of Maryland in 1992, and, after a Nuclear

Physics postdoctoral fellowship at Iowa State University, entered medical physics in 1996 as a Research Associate at Virginia Commonwealth University. He has been an Assistant Professor at VCU and the University of Pittsburgh Medical Center and is currently an Associate Professor, Director of the Clinical Physics Residency, and Chief of Clinical Brachytherapy Physics at the University of Virainia. He has been a member of several committees. subcommittees and working groups of AAPM, as well as serving as the President of the Mid-Atlantic Chapter in 2011. Furthermore, he has been a member of the ABR's Therapy Medical Physics Initial Certification Committee, has served as a physics residency accreditation reviewer for CAMPEP, and is currently a member of the Board of Directors of SDAMPP. He is

board certified by both the ABMP and ABR and has published over 40 peer reviewed manuscripts, close to 100 abstracts, and several book chapters.



#### HSIAO-MING LU, PhD

Dr. Hsiao-Ming Lu received his PhD in Physics from Arizona State University in 1988, completed postdoctoral training

at the Joint Center for Radiation Therapy, Harvard Medical School, and obtained ABR certification in Therapeutic Radiologic Physics in 1999. Dr. Lu then joined the Department of Radiation Therapy at Massachusetts General Hospital where he currently serves as the Director of Clinical Physics, and is Associate Professor at Harvard Medical School, His research on proton therapy physics has resulted in 70+ peer-reviewed journal papers. He has served on many committees including being the Associate Editor for International Journal of Particle Therapy published by the PTCOG organization. He has also contributed to medical physics education by training graduate students and residents at MGH and other universities. In these roles, Dr. Lu has made outstanding contributions to clinical medical physics, especially in the area of proton radiation therapy.



#### **ZHENG FENG LU, PhD**

Zheng Feng Lu received her PhD degree in Medical Physics in 1994 from the University of Wisconsin-Madison.

She was a faculty member in the Department of Radiology at Columbia University from 1994 to 2011. She became ABR certified in Diagnostic Radiologic Physics in 1997. She joined the Department of Radiology at the University of Chicago in 2011, where she is now the Section Chief of Clinical Physics and the Director of the Residency Program in Clinical Imaging Medical Physics. Dr. Lu has been an AAPM member since 1992, serving as Chair of Ultrasound Subcommittee for three years, Annual Meeting Imaging Education Program Director, Ultrasound Hands-On Workshop Director, and a member of 10 other committees. Dr. Lu has been an NIH grant reviewer for the past seven years. She is also actively serving in several committees of CAMPEP, ABR, AIUM and ACR. Dr. Lu has published over 25 peer-reviewed papers, books and book chapters including two award-winning papers.



#### VRINDA NARAYANA, PhD

Vrinda Narayana received her PhD degree from Wayne State University in 1997. She joined the

faculty of the University of Michigan in 2000 and has served the University in her role as the Chief Physicist at Providence Cancer Institute since that time. Dr. Narayana has been an active member of the AAPM for 25 years and, is a member of the Summer School Subcommittee where she is currently serving as the Vice-Chair. She has held numerous leadership roles at the Great Lakes Chapter of AAPM and organized more than 10 meetings for the local Chapter. She is active in the American Brachytherapy Society and was the Physics Co-Chair of the 2007 annual ABS meeting. She has served as the Associate Editor of Medical Physics World for 10 years. She is certified by the American Board of Radiology in Therapeutic Radiologic Physics and by the American Board of Medical Physics in Radiation Oncology Physics.



#### WAYNE NEWHAUSER, PhD

Wayne Newhauser received his PhD from the University of Wisconsin in 1995, did post-doctoral

training at the German National Standards Laboratory, and is ABRcertified in Therapeutic Medical Physics. He held appointments at Massachusetts General Hospital and the University of Texas MD Anderson Cancer Center. where he had leadership roles in the construction and operation of proton therapy centers and major research projects. Since 2011, as Professor and Dr. Charles M. Smith Chair of Medical Physics, he has directed the araduate medical physics program operated by Louisiana State University and Mary Bird Perkins Cancer Center. He has published 100+ peer-reviewed papers on topics that include charged particle therapy and radiation late effects. while students earned 17 MS and PhD degrees under his mentorship. His research interests have fostered his serving interdisciplinary societies that include AAPM, American Nuclear Society, and Health Physics Society.



#### RICHARD POPPLE, PhD

Richard Popple received his Ph.D. degree from Rice University in 1996 and completed a

post-doctoral fellowship at The University of Texas M.D. Anderson Cancer Center in 2000. He subsequently joined the Department of Radiation Oncology at The University of Alabama at Birmingham, where he is now Professor and Director of the Medical Physics Residency Program. Dr. Popple's service to AAPM includes participation in TG 203, charged with making recommendations for the management of patients with implanted cardiac devices, and TG 263, charged with making recommendations for standardization of nomenclature for radiation therapy. He currently serves on the Board of Editors of the Journal of Applied Clinical Medical Physics and as an Associate Editor of Medical Physics. He is certified by the American Board of Radiology in Therapeutic Radiologic Physics. Dr. Popple has published over 60 papers in peer-reviewed journals.



#### FRANK RANALLO, PhD

Frank Ranallo earned his MS in Physics from the University of Wisconsin and has worked as a clinical medical physicist

there since 1980. In 1984 he created the Radiological Physics Services group in the Medical Physics Department. Dr. Ranallo earned his PhD in Physics in 1993 from the University of Wisconsin where he is now an Associate Professor of Medical Physics & Radiology, and director of the Imaging Physics Residency program. He is certified by the ABR in Diagnostic Medical Physics. He is presently a member of two AAPM task groups, and has been an author of two AAPM reports. He is an inventor of several devices used to test medical imaging equipment. He has worked for many years improving the techniques used in CT scanning, developed CT protocols now installed by GE on their scanners, and has provided many courses on optimizing CT protocols including invited talks at AAPM. He has been extensively involved in the education of medical physics students, radiology residents, and radiologic technologists.



#### SUSAN RICHARDSON, PhD

Susan Richardson received her PhD from the University of Wisconsin in 2003. She took her first

position at Baylor College of Medicine in Houston, Texas and worked there for six years. While in Texas, she received her MP license and was certified by the ABR in Therapeutic Radiologic Physics. In 2009 she moved to Washington University in St. Louis where she was heavily involved in the residency program, the University of Missouri CAMPEP accredited MP program, and research in brachytherapy. Susan now works at Swedish Cancer Institute in Seattle. Susan is a member of the ABR Radiation Oncology Physics Exam Committee and is involved in both written and oral examinations. She is a reviewer for many journals, and is on several task groups and working groups for AAPM. She has also served on the AAPM Board of Directors. She has published numerous papers and book chapters, primarily on brachytherapy and safety.



#### **TIMOTHY RITTER, PhD**

Timothy Ritter earned his PhD developing a novel 30 MHz medical ultrasound system at Penn State University.

He served seven years in the U.S. Air Force and earned ABR certifications in Therapeutic and Diagnostic Medical Physics. He is currently a clinical faculty member at the University of Michigan and Chief Therapeutic Physicist at the Veterans Affairs Ann Arbor Healthcare System. Dr. Ritter has served on national advisory committees for the Veterans Health Administration, has experience on AAPM committees/task groups, and is an Associate Editor for Medical Dosimetry. He currently serves on AAPM's Medical Physics Education of Physicians Committee, the Radiation **Oncology Medical Physics Education** Subcommittee, and as a consultant on TG 263. He has been granted two US patents, earned the IEEE UFFC Outstanding Paper Award in 2000, was selected for several Medical Physics teaching awards, and is an author or co-author on many publications, presentations and posters.



#### ANIL SETHI, PhD

Anil Sethi received his PhD degree in Experimental Nuclear Physics from the University of Georgia in 1987. Following a

post-doctoral fellowship at the University of Minnesota and Los Alamos National Laboratory, he completed the Clinical Medical Physics Residency Program under Professor Faiz Khan. He is currently Associate Professor of Medical Physics and Director of the Medical Physics Residency Program at Loyola University Medical Center, Dr. Sethi has served as a member of various AAPM task groups, working groups and subcommittees; as an ABMP oral board examiner, and as an ASTRO course instructor. In addition to teaching/mentoring students and residents, he has been a research advisor to an IAEA fellow, an AAPM Summer Undergraduate fellow, Provost fellows, and MS/PhD students in medical physics. He has authored more than 45 peer-reviewed papers and book chapters and presented more than 100 abstracts and invited talks at national and international conferences.



#### **KE SHENG, PhD**

Ke Sheng received his Medical Physics PhD from the University of Wisconsin, Madison in 2004. In the same

year he joined the Department of Radiation Oncology at the University of Virginia, where he was Assistant Professor and Associate Professor before moving to the University of California, Los Angeles, where he was promoted to Professor in 2015. Dr. Sheng has served on 10 committees of AAPM and the American Society for Radiation Oncology. Dr. Sheng has a wide research interest includina optimization, MRI guided radiation therapy, computational radiobiology and nanotechnology. He has been awarded six NIH grants as PI or co-PI. He is leading an NIH project to harmonize preclinical dosimetry. He is certified by the American Board of Radiology in Therapeutic Medical Physics. Dr. Sheng has published over 85 papers in peerreviewed journals.



#### **JASON SOHN, PhD**

Jason Sohn began his training as a medical physicist in 1987 at the University of Wisconsin-Madison. After

receiving his MS degree, he worked at the Cleveland Clinic and the University of Rochester. He subsequently obtained his PhD from the Medical College of Ohio and became ABR certified in 1995. In 1998, he was appointed as an assistant professor at Washington University in St. Louis. In 2003 he moved to Case Western Reserve University where he was awarded a Susan Koman Breast Foundation arant in 2006 and a federal grant in 2010. He was promoted to full professor in 2015. Since 2001, he has served as an examiner for the ABR. and received its Distinguished Service Award in 2010. Jason has been an AAPM member for more than 25 years. has served on many AAPM committees, and has held the position of President of the Missouri River Valley Chapter. He has served as a reviewer and quest associate editor for the Medical Physics Journal. He is currently co-chair of the **RTOG Medical Physics Committee. He** has supervised more than 30 college, graduate and postdoctoral researchers.



#### SRINIVASAN VEDANTHAM, PhD

Srinivasan Vedantham received his PhD degree from the Worcester Polytechnic

Institute. He was an Assistant Professor of Radiology at Emory University and subsequently joined the University of Massachusetts Medical School, where he is currently an Associate Professor of Radiology. He has served AAPM as the Annual Meeting Scientific Program Director for the imaging and the joint imaging-therapy tracks and serves on the Board of Associate Editors for the Medical Physics Journal. He is a member of AAPM Task Group 245. He has served as continuing education course faculty at the annual meetings of the Radiological Society of North America. He is actively involved in research on breast cancer imagina and neurointerventional imaging and has published over 55 papers in peerreviewed journals.



#### JIHONG WANG, PhD

Jihong Wang received his PhD degree from the University of Colorado in 1994. After completing

a Medical Physics Residency at the Mayo Clinic he joined the Department of Radiology at the University of Texas Southwestern Medical Center in Dallas in 1996. In 2004 he became an Associate Professor in the Department of Imaging Physics at The University of Texas MD Anderson Cancer Center. In 2014 he was recruited to the Department of Radiation Physics in the Division of Radiation Oncology at MD Anderson. Dr. Wang has served in many capacities in AAPM. He is Chair of the Imaging for Treatment Assessment Work Group, Chair of TG 117, and serves as an Associate Editor of Medical Physics. He is certified by the American Board of Radiology in Diagnostic Radiologic Physics. He currently sits on the RSNA Research and Development Committee. Dr. Wang has published 47 papers in peer-reviewed journals.



### JACQUELINE ZOBERI, PhD

Jacqueline Esthappan Zoberi received a BA with honors in Physics from the University

of Chicago in 1995, where she also received a PhD in Medical Physics in 2000. She completed the Radiation Oncology Physics Residency program at the Washington University School of Medicine in 2002. She became certified by the ABR in Therapeutic Radiologic Physics in 2003. Since 2002 she has been a faculty member in the Department of Radiation Oncology at Washington University / Siteman Cancer Center where she is currently an Associate Professor and the Chief of Brachytherapy Physics. She teaches and mentors in the physics residency program and served as its Associate Director from 2009-2012. She served as President of the Missouri River Valley Chapter from 2009-2011. She is a member of the WG on Periodic Review of Medical Physics Residency Training and co-authored AAPM Report 249. She is currently Vice Chair of the ETC. She has been invited by AAPM and AAMD to give several educational lectures, including SAM sessions, regarding brachytherapy. She has also served the ABS in the development of a brachytherapy consensus statement for inoperable endometrial cancer.

### JOHN S. LAUGHLIN YOUNG SCIENTIST AWARD



#### **ARMAN RAHMIM, PhD**

Arman Rahmim, PhD, is Associate Professor of Radiology and Electrical & Computer Engineering at the Johns Hopkins University. He received his MSc in the field of condensed matter x-ray physics and PhD in the field of medical imaging from the University of British Columbia in Vancouver. He was subsequently recruited by the Department of Radiology at the Johns Hopkins University (Division of Nuclear Medicine) as Chief Physicist for the

brain PET imaging program, where he also directs the Tomographic Image Reconstruction & Analysis Laboratory, Dr. Rahmim pursues interdisciplinary research towards enhanced quantitative image generation and analysis for tomographic medical imaging devices (PET, SPECT, optical, acoustic) including emphasis on multi-modality imaging (e.g. PET/MRI, PET/CT), and has experience and expertise with mathematical, computational and engineering tools to achieve state-ofthe-art medical imaging. Leading collaborations with researchers in the areas of imaging physics/engineering, mathematics, computer science, radiochemistry, material science, drug delivery and biological modeling, Dr. Rahmim aims to develop and validate novel solutions for quantitative tomographic data acquisition, image reconstruction and assessment. He lectures for ECE/BME students at Johns Hopkins University as well as nuclear medicine residents and postdoctoral fellows. He was elected as an IEEE Senior Member in 2012 and is a member of the Public Education Committee of the American Association of Physicists in Medicine (AAPM) and the Computer and Instrumentation Council (CalC) of the Society of Nuclear Medicine and Molecular Imaging (SNMMI).

# MARVIN M. D. WILLIAMS PROFESSIONAL ACHIEVEMENT AWARD RECIPIENTS

Gail D. Adams	1989	Kenneth R. Hogstrom	2004
Peter R. Almond	1990	Edwin C. McCullough	2005
Ann E. Wright	1991	Edward S. Sternick	2006
John S. Laughlin	1992	Michael D. Mills	2007
Robert O. Gorson	1993	Edward Lee Nickoloff	2008
Robert J. Shalek	1994	Melissa Carol Martin	2009
Nagalingam Suntharalingam	1995	Walter Grant	2010
James A. Purdy	1996	Benjamin R. Archer	2011
Colin G. Orton	1997	William F. Hanson	2012
Faiz M. Khan	1998	Marilyn Stovall	2013
Jimmy O. Fenn	1999	Herbert W. Mower	2014
Moses A. Greenfield	2000	Christopher H. Marshall	2015
Stewart C. Bushong	2001	Jean M. St. Germain	2015
Bhudatt R. Paliwal	2002	Keith J. Strauss	2016
James B. Smathers	2003		



### MARVIN M. D. WILLIAMS PROFESSIONAL ACHIEVEMENT AWARD



#### **KEITH STRAUSS, MSc**

Keith Strauss, MSc, began his career as RSO and then Diagnostic Radiologic Physicist at Michael Reese Hospital in Chicago in 1976. Eight years later Mr. Strauss became the Director of Radiology Physics and Engineering at Boston Children's Hospital which began his focus on pediatric imaging. He is currently finishing his career at Cincinnati Children's Hospital.

Mr. Strauss has focused on management of the patient's radiation dose while maintaining diagnostic image quality. He began by carefully conducting extensive acceptance testing of imaging equipment in the late '70s and early '80s. Since then he has spent considerable time working with imaging equipment manufacturers to develop better configurations of their imaging devices for every size of patient from 1 – 100 kg. This involves leveraging the unique design characteristics of the imaging device to improve image quality and/or reduce patient radiation dose.

For approximately 25 years, Mr. Strauss served as a liaison to the CRCPD from AAPM in an effort to help state inspectors better understand the challenges of imaging and help the leadership of AAPM better understand the activities and challenges of state inspection programs.

Since 2008, Mr. Strauss has had the privilege of serving on the steering committee of the Image Gently Campaign, a program to improve pediatric imaging. He is currently serving as its vice chairman. He also is currently the chairman of AAPM's Pediatric Imaging Sub Committee and serves on the board of AAPM. He has had the privilege to serve within the ACR, SPR, IEC, IAEA, NCRP, RSNA and HPS.

### EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD RECIPIENTS

Arnold Feldman	1996	Raymond L. Tanner	2009
Robert O. Gorson	1997	Benjamin R. Archer	2010
John Hale	1998	Laurence P. Clarke	2010
Jon H. Trueblood	1998	Joel E. Gray	2011
Kenneth A. Wright	1998	Martin S. Weinhous	2011
Perry Sprawls	1999	Charles A. Mistretta	2012
Joe P. Windham	1999	Edward S. Sternick	2012
William F. Hanson	2000	Kenneth N. Vanek	2012
Mary L. Meurk	2000	Caridad Borras	2013
Amos Norman	2002	Norbert J. Pelc	2013
Stewart C. Bushong	2003	George Starkschall	2013
Radhe Mohan	2003	Howard Ira Amols	2014
Donald E. Herbert	2004	Bruce H. Curran	2014
Azam Niroomand-Rad	2006	Edward Lee Nickoloff	2014
Lawrence N. Rothenberg	2007	Larry A. DeWerd	2015
Marilyn Stovall	2007	Kunio Doi	2015
James M. Galvin	2008	Melissa Carol Martin	2015
Kenneth R. Kase	2008	Wendell R. Lutz	2016
James A. Deye	2009	Robert J. Pizzutiello	2016
Lawrence E. Reinstein	2009	Michael V. Yester	2016

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### EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD



#### WENDELL LUTZ, PhD

Wendell Lutz received a PhD in nuclear physics from Purdue University in 1973. After six years of undergraduate teaching at Pahlavi University in Shiraz, Iran and the US Coast Guard Academy, he entered a post-doctoral training program in medical physics at the Joint Center for Radiation Therapy in Boston and subsequently joined the medical physics staff. During his years at the Joint Center, Dr. Lutz was given the opportunity to work on many interesting projects

while gaining clinical experience. Building a dual linac total body irradiator and developing one of the early linac-based radiosurgery systems were two of the most notable. In 1985, Dr. Lutz took a clinical position in the Radiation Oncology Department at the University of Arizona. There he worked on a variety of treatment techniques including total body irradiation, total skin electron irradiation, intra-operative radiation therapy, radiosurgery, and linac quality assurance. From 1995 until 2001, Dr. Lutz was a member of the Medical Physics Department at Memorial Sloan-Kettering Medical Center where, among other activities, he assisted post-docs in their research projects. Throughout his career he has maintained a strong interest in teaching. Currently Dr. Lutz is teaching part-time at the University of Arizona, working at a local veterinary oncology clinic and consulting to a start-up company working on a radiation treatment for wet macular degeneration. Most significantly of all, he has been mentored and assisted throughout his career by a group of outstanding physicists and physicians too numerous to mention.



#### **ROBERT PIZZUTIELLO, MS**

After receiving his MS degree and completing a fellowship in Radiation Oncology Physics at the University of Rochester in 1978, Robert Pizzutiello, MS, became Director of Medical Physics at Rochester General Hospital, where he served for 10 years. During that time he discovered his passion for teaching physics — especially to Diagnostic Radiology residents. Seeing the need to offer personal, clinical physics service to the many community hospitals in the region,

Mr. Pizzutiello began working full time as a consultant in 1989, plunging into his fledgling Upstate Medical Physics (UMP). By 2009, Upstate grew to be a regional practice group with a close-knit team of 13 committed, respected professionals. During a 2009 AAPM Professional Council discussion on the shortage of Imaging Physics residencies, Mr. Pizzutiello saw a path to convert his on-the-job training program into a formal residency. With support from AAPM and long-time mentor and friend Joel Gray, he founded the UMP Residency program — the first Imaging Physics Residency to become CAMPEP accredited in a private practice setting. Mr. Pizzutiello continues to serve as Program Director. In 2010 Mr. Pizzutiello joined the nascent national practice group, Landauer Medical Physics, as Sr. VP — with UMP as the model Landauer Partner. He retired from Landauer last year, and continues as their Sr. Advisor. Mr. Pizzutiello has published 21 articles or chapters in peer reviewed journals or textbooks, and has been invited to lecture to well over 200 professional and scientific groups in the USA, South America, and China. Deeply committed to professional activities, Mr. Pizzutiello holds 11 current AAPM appointments. He serves with ACR, CAMPEP, SDAMPP and IAC, and has been elected fellow of AAPM, ACR and ACMP.



#### **MICHAEL YESTER, PhD**

Michael Yester, PhD, is a Professor in the Department of Radiology at the University of Alabama at Birmingham (UAB). He is certified in Radiological Physics by the ABR and is a Fellow of AAPM and ACR. He obtained a PhD in Physics from Iowa State University in 1972. After a postdoctoral fellowship at Carnegie Mellon University in Nuclear Chemistry, Dr. Yester went to West Virginia University and received training in Medical Physics. Dr. Yester joined the

Physics Division of the Radiology Department at UAB in 1976 and became Head of the Division in 2002.

Dr. Yester has been involved in the AAPM Summer School Committee, Nuclear Medicine Committee as a member and as chair of the committee, chair of the Continuing Professional Development Committee, chair of the Maintenance of Certification Subcommittee, and the SAMs coordinator. Dr. Yester was Local Arrangements chair and Co-Director of the 1983 AAPM Summer School in Birmingham and Co-Director of the 1998 and 2004 Summer Schools. He has served as President and AAPM Board Representative of the Southeastern Chapter of AAPM and is a recipient of the SEAAPM Jimmy Fenn Lifetime Achievement Award. Dr. Yester presently serves as chair of the ABR Nuclear Medicine Physics Exam Committee. He is also a member of the ACR and currently serves on the Nuclear Medicine Physics Accreditation Committee. Dr. Yester is a past chair of the ACR Mammography Accreditation Physics Subcommittee. Dr. Yester has participated in the training of 25 medical physicists and has authored or co-authored 11 book chapters and 73 publications.

### WILLIAM D. COOLIDGE GOLD MEDAL RECIPIENTS

William D. Coolidge	1972	Robert Loevinger	1995
Robert J. Shalek	1973	Leonard Stanton	1996
John S. Laughlin	1974	James A. Purdy	1997
Marvin M. D. Williams	1975	Bengt E. Bjarngard	1998
Harold E. Johns	1976	Faiz M. Khan	1999
Edith E. Quimby	1977	Lowell L. Anderson	2000
Lawrence H. Lanzl	1978	Ravinder Nath	2001
Herbert M. Parker	1979	Bhudatt R. Paliwal	2002
John R. Cameron	1980	Kenneth R. Hogstrom	2003
James G. Kereiakes	1981	C. Clifton Ling	2004
Gail D. Adams	1982	Gary T. Barnes	2005
Edward W. Webster	1983	Ervin B. Podgorsak	2006
Robley D. Evans	1984	Arthur L. Boyer	2007
Jack S. Krohmer	1985	Paul L. Carson	2008
Warren K. Sinclair	1986	Willi A. Kalender	2009
Gordon L. Brownell	1987	David W. O. Rogers	2010
John R. Cunningham	1988	Richard L. Morin	2011
William R. Hendee	1989	Stephen R. Thomas	2012
Peter R. Almond	1990	Benedick A. Fraass	2013
Moses A. Greenfield	1991	Thomas Rockwell Mackie	2014
Nagalingam Suntharalingam	1992	Maryellen L. Giger	2015
Colin G. Orton	1993	Paul M. DeLuca	2016
F. Herb Attix	1994		

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### WILLIAM D. COOLIDGE GOLD MEDAL RECIPIENT FOR 2016



#### PAUL M. DELUCA, JR., PhD

Paul M. DeLuca, Jr, PhD, received a bachelor of science degree in physics in 1966 from LeMoyne College, Syracuse, NY and a doctorate in nuclear physics from the University of Notre Dame in 1971. That same year he joined the section of Medical Physics in the Department of Radiology at the University of Wisconsin–Madison as a research associate, and in 1975 he was appointed to the faculty of the Department of Radiology as an Assistant Professor.

Following the creation of the Department of Medical Physics in 1981, he served as vice-chairman 1982-1987 and thence chair from 1987 through 1998 and held appointments as professor in the Departments of Medical Physics, Radiology, Human Oncology, Engineering Physics and Physics. In 1999, DeLuca assumed a role in the University of Wisconsin School of Medicine and Public Health as Associate Dean for Research and Graduate studies. In 2001 this role was expanded with his appointment as Vice Dean of the School of Medicine and Public Health. In that role, he was closely involved with the development of the Wisconsin Institutes of Medical Research complex. In February 2008, DeLuca was appointed as the first Rennebohm Research Professor by the Board of Regents. Subsequently, he served as Provost and Vice Chancellor for Academic Affairs from July, 2009 through August 2014 thence assuming the position of Provost Emeritus and Emeritus Professor of Medical Physics.

During his career, DeLuca's research interests concentrated on fast neutron dosimetry including the production of intense sources of fast neutrons, determination of elemental neutron kerma coefficients and applications of microdosimetry to radiation dosimetry. During this period, he developed one of the world's most intense sources of 15 MeV neutrons — the Wisconsin Gas Target Neutron Source. DeLuca is a recognized expert in high energy particle radiation effects on humans. From 1999-2004 he served as a member and then chair of the Nonproliferation and International Security Division Review Committee (DRC) at Los Alamos National Laboratory. He is currently a member and vice chairman of the International Commission on Radiation Units and Measurements and serves as Board Member and Treasurer for the Hertz Foundation. During this period, DeLuca directly supervised 16 PhD as well as 27 MS degrees. Other national and international associations and professional society affiliations include the American Association of Physicists in Medicine, American Physical Society, Health Physics Society, National Council on Radiation Protection and Measurements, Council on Ionizing Radiation Measurements and Standards, and Institute of Physics. DeLuca has served AAPM as member and chair of Commission on Education and Training of Medical Physicists (now CAMPEP), liaison to American Physics Society, AAPM Board of Directors, AAPM Awards and Honors, AAPM Summer Undergraduate Fellowship Program (member and chair), and AAPM Development Committee (member and chair). DeLuca is a Fellow of AAPM.



Music Courtesy of Herbert W. Mower, Sc. D.



to all of the Award Recipients!

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