



AMERICAN ASSOCIATION *of* PHYSICISTS IN MEDICINE

Awards Ceremony

July 13, 2015 • 6:30 p.m.

Platinum Ballroom • Anaheim Marriott • Anaheim, CA



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.

REINVIGORATING
SCIENTIFIC EXCELLENCE

2015 PROGRAM

Welcome and Presentation of Awards

John M. Boone, PhD

AAPM President

Honoring Deceased AAPM Members

AAPM Fellowships and Grants

Research Seed Funding Initiative

Jack Fowler 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

Fellows

Recognition of 50+ Years of AAPM Membership

John S. Laughlin Young Scientist Award

Marvin M.D. Williams Professional Achievement Award

Edith H. Quimby Lifetime Achievement Award

William D. Coolidge Award

Closing Remarks

Reception immediately following

AAPM Fellowships & Grants

- **AAPM/RSNA Fellowship for the training of a doctoral candidate in the field of Medical Physics**

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

Dylan Breitzkreutz

- **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 2015 are:

Vernita Adkins, Catherine Carranza, Howard Heaton, Brigid McDonald, Mayisha Nakib, Adam Pruneda, Jose Trevino and Davon Webb

- **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 who 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. The Summer Undergraduate Fellows for 2015 are:

Andrew Joseph Boria, Kimberley Ann Lam Tin Cheung, Megan Emily Dags, Fatimah Eashour, Nicholas Alexander Gabriel, Caryn Geady, Andrew Michael Headley, Rebecca Lynn Meerschaert, Austin Matthew Patrick, Marie Schwalbe, Trevor Lewis Vent and Jonathon Luke Yuly

- **Summer School Scholarships**

These scholarships are offered to applicants who are early in their careers in medical physics. The 2015 scholarship recipients are:

Suresh Rana, MS, Jenny Lu, MS, Ahmet Ayan, PhD, Daniel Hyer, PhD, Sara St. James, PhD and Hilary Vass

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 2015 are:

Stephen Yip, PhD, Dana-Farber Cancer Institute

Ke Li, PhD, University of Wisconsin-Madison

John G. Eley, PhD, University of Maryland School of Medicine

Jack Fowler Junior Investigator Award

Established in honor of Dr. Jack Fowler, Ph.D., 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:

Joerg Rottmann, 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

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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 2014 is presented to:

Jarkko J. Ojala, Mika K. Kapanen, Simo J. Hyödynmaa, Tuija K. Wigren and Maunu A. Pitkänen

for the paper entitled “Performance of dose calculation algorithms from three generations in lung SBRT: comparison with full Monte Carlo-based dose distributions,” *Journal of Applied Clinical Medical Physics*, 15, 2 (2014).

■ Award of Excellence for the Best Medical Imaging Article

The Award of Excellence for the Best Medical Imaging Article published in *JACMP* in 2014 is presented to:

Nadia Withofs, Claire Bernard, Catherine van der Rest, Philippe Martinive, Mathieu Hatt, Sebastien Jodogne, Dimitris Visvikis, John A. Lee, Philippe A. Coucke and Roland Hustinx

for their paper entitled “FDG PET/CT for rectal carcinoma radiotherapy treatment planning: comparison of functional volume delineation algorithms and clinical challenges,” *Journal of Applied Clinical Medical Physics*, 15, 5 (2014).

■ Award of Excellence for the Best Radiation Measurements Article

Award of Excellence for the Best Radiation Measurements Article published in *JACMP* in 2014 is presented to:

Piotr Zygmanski, Ciamak Abkai, Zhaohui Han, Yury Shulevich, David Menichelli and Jurgen Hesser

for their paper entitled "*Low-cost flexible thin-film detector for medical dosimetry,*" *Journal of Applied Clinical Medical Physics*, 15, 2 (2014).

■ 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 2014 is presented to:

Lihui Jin, Ahmed Eldib, Jinsheng Li, Ismail Emam, Jiajin Fan, Lu Wang and Chang Ming Charlie Ma

for their paper entitled "*Measurement and Monte Carlo simulation for energy- and intensity modulated electron radiotherapy delivered by a computer-controlled electron multileaf collimator,*" *Journal of Applied Clinical Medical Physics*, 15, 1 (2014).

Moses & Sylvia Greenfield Award

The Moses and Sylvia Greenfield Award for the best paper (other than Radiation Dosimetry) published in *Medical Physics* for 2014 is presented to:

Quentin Adams, Jingzhu Xu, Elizabeth Kaye Breitbart, Xing Li, Shirin Enger, William Rockey, Yujung Kim, Xiaodong Wu and Ryan Thomas Flynn

for their paper entitled "*Interstitial rotating shield brachytherapy for prostate cancer,*" *Medical Physics*, 41, 051703 (2014)

and to:

Jennifer Xu, Wojciech B. Zbijewski, Grace Jianan Gang, Joseph W. Stayman, Katsuyuki Taguchi, Mats A. Lundqvist, Erik Fredenberg, John A. Carrino and Jeffrey H. Siewerdsen

for their paper entitled "*Cascaded systems analysis of photon counting detectors,*" *Medical Physics*, 41, 101907 (2014).

Farrington Daniels Award

The Farrington Daniels Award for the best paper on Radiation Dosimetry published in *Medical Physics* in 2014 is presented to:

Regina Fulkerson, John Micka and Larry DeWerd

for their paper entitled “*Dosimetric characterization and output verification for conical brachytherapy surface applicators (Part 1: electronic brachytherapy source)*,” *Medical Physics*, 41, 022103 (2014).

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:

Marilyn Goske, MD and Roderic Pettigrew, MD

Fellows

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

Stephen Avery, PhD

Kristy Brock, PhD

Gene Cardarelli, PhD

Steven de Boer, MSc

Sonja Dieterich, PhD

Warren D’Souza, PhD

Martin Fraser, MS

Eric Ford, PhD

David Hintenlang, PhD

Rebecca Howell, PhD

Kwok Leung Lam, PhD

Lijun Ma, PhD

Patrick McDermott, PhD

Malcolm McEwen, PhD

Michael Mitch, PhD

Eduardo Moros, PhD

Baldev Patyal, PhD

Stephen Riederer, PhD

Vythialingam Sathiaselan, PhD

Charles Shang, MSc

Michael Sharpe, PhD

Russell Tarver, MS

Georgia Tourassi, PhD

Ching-Chong Jack Yang, PhD

Recognition of 50+ Years of AAPM Membership

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 2015 John S. Laughlin Young Scientist Award is:

Katia Parodi, 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 recipients of the 2015 AAPM Marvin M. D. Williams Professional Achievement Award are:

Christopher Marshall, PhD and Jean St. Germain, MS

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 2015 Award for Achievement in Medical Physics are:

Larry DeWerd, PhD, Kunio Doi, PhD, and Melissa Martin, MS

William D. Coolidge Award

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 2015 AAPM William D. Coolidge Award is:

Maryellen Giger, PhD

Honorary Membership



MARILYN J. GOSKE MD, FAAP, FACR

Dr. Marilyn J. Goske is a pediatric radiologist and Professor of Radiology and Pediatrics at Cincinnati Children's Hospital Medical Center in Cincinnati, Ohio. A lifelong educator, she believes in empowering patients and families using communication about medical imaging to improve patient safety for children. In the early 2000s, pediatric radiologists and medical imaging physicists advocated lower radiation doses during pediatric imaging. During her Presidency of the Society for Pediatric Radiology, she, along with other passionate volunteers formed the Alliance for Radiation Safety in Pediatric Imaging. The Society for Pediatric Radiology, the American Association of Physicists in Medicine (AAPM), the American College of Radiology, and the American Society of Radiologic Technologists founded the Alliance in 2007. AAPM has provided valuable, technical support to the Alliance since its inception, through its liaison, Keith Strauss. The Alliance, sponsor of the Image Gently Campaign, pioneered the use of social marketing to raise awareness, educate, and advocate for justification of pediatric medical imaging with the need to "child-size" radiation doses. The Alliance now includes approximately 100 medical and dental societies. It has been a model for the Image Wisely, Eurosafe and Afrosafe campaigns. The Alliance has sponsored seven international radiation protection campaigns. For her tireless work on behalf of children in medicine, for her passion for the care and safety of pediatric patients worldwide, and for her promotion of the application of clinical medical physics in the US and worldwide, AAPM proudly presents Honorary Membership to Dr. Goske.

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RODERIC I. PETTIGREW, PhD, MD

Roderic I. Pettigrew, PhD, MD, is the first Director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) at the NIH. In 2013, Dr. Pettigrew was also appointed to initiate a new NIH position as the Acting Chief Officer for Scientific Workforce Diversity. This position was established by the NIH Director for the coordination and oversight of all NIH programs and activities designed to address the unique diversity and inclusion challenges of the biomedical research workforce. Prior to his appointment at the NIH, Dr. Pettigrew was Professor of Radiology, Medicine (Cardiology) at Emory University and Bioengineering at the Georgia Institute of Technology and Director of the Emory Center for MR Research, Emory University School of Medicine, Atlanta, Georgia. He is known internationally for his pioneering work at Emory University involving four-dimensional imaging of the cardiovascular system using magnetic resonance (MRI). His current research focuses on integrated imaging and predictive biomechanical modeling of coronary atherosclerotic disease. Early on at the NIBIB he jointly led a national effort with Howard Hughes Medical Institute to create new interdisciplinary graduate training programs, and also established the Quantum Projects program to achieve “medical moon shots” by pursuing high-risk, high-impact projects designed to solve major healthcare problems. Under Dr. Pettigrew’s leadership, national collaborative and international initiatives have been issued to develop low cost and point-of-care medical technologies and at present, he leads an effort to reduce CT radiation dose to background levels. He has also recently called for a US-India collaboration to develop unobtrusive technologies for frequent recording of blood pressure to address the world wide problem of hypertension. Dr. Pettigrew has been elected to membership in two components of the US National Academies: the Institute of Medicine, and the National Academy of Engineering. His awards include Phi Beta Kappa, the Bennie Award, Most Distinguished Alumnus of the University of Miami (1990), Herbert Nickens Award of the ABC, Pritzker Distinguished Achievement Award of the Biomedical Engineering Society, Distinguished Service Award of the National Medical Association, the Pierre Galletti Award of the American Institute of Medical and Biological Engineering, and the Inaugural Gold Medal Award of the Academy of Radiology Research.

Fellows



STEPHEN AVERY, PhD

Stephen Avery received his PhD from Hampton University in 2002 and then joined the University of Pennsylvania as an instructor. Now an Assistant Professor and Director of both the CAMPEP-accredited Masters in Medical Physics and Post-Graduate Certificate programs; he is board certified by the American Board of Radiology in Therapeutic Medical Physics. Dr. Avery has served in the American Association of Physicists in Medicine through committee memberships in CAMPEP GEPRC, Education and Training of Medical Physicists, Medical Physicists as Educators, Summer Undergraduate Fellowship Program Subcommittee and the Working Group on Conformal Small Animal Irradiation Devices. He chairs the Diversity and Inclusion committee and developed the DREAM program to encourage underrepresented students to pursue medical physics. He represents AAPM within other organizations, through the Liaison Group on Under-Represented Minorities (AIP) and Committee on Workforce Diversity and Disparity Outcomes (ASTRO).



KRISTY BROCK, PhD

Kristy K. Brock received her PhD in Nuclear Engineering and Radiological Sciences from the University of Michigan in 2003. After receiving her PhD, she joined the faculty at the University of Toronto (Radiation Medicine Program, Princess Margaret Hospital) and is now an Associate Professor in the Department of Radiation Oncology at the University of Michigan. Dr. Brock has served in many capacities in AAPM. She is currently chair of Task Group 132 on Image Registration and the Imaging for Treatment Planning Working Group and Co-Chair of the Scientific Program Subcommittee. She is also a member of Science Council, the Board of Directors, and the Editorial Board of Medical Physics. She is certified by the American Board of Radiology in Therapeutic Medical Physics. Dr. Brock has published 75 papers in peer-reviewed journals, is the Editor of the book 'Image Processing in Radiation Therapy', and has been the PI on 12 peer-reviewed grants.



GENE CARDARELLI, PhD

Gene Cardarelli earned an MPH in 1987 from Boston University and an MS from UMASS-Lowell in 1989. He was certified by the American Board of Radiology in Therapeutic Radiological Physics in 1989. He began his professional career at Boston Medical Center where he worked for 7 years. After a 4 year stint in Greenville South Carolina, he then took a position at Rhode Island Hospital where he remained for 16 years. During that time, he pursued an academic, research and teaching role in the Brown University Medical School as an Assistant Professor. He earned his PhD in Medical Physics from the University of Massachusetts - Lowell in 2006. Gene was made a fellow of the American College of Medical Physics in 2008. He is currently the Director of Physics and Radiation Oncology for Hartford Healthcare Cancer Institute. He has 12 published papers, 33 abstracts, 12 presentations and 3 grants.



STEVEN DE BOER, MSc

Steven de Boer received his MSc degree from the Department of Medical Biophysics from the University of Toronto in 1993 and was employed at Carilion Health System in Roanoke, Virginia as a Radiological Physicist in Radiation Oncology. In 1998 he joined Roswell Park Cancer Institute in Buffalo, NY. Mr. de Boer is currently an assistant professor in a CAMPEP approved Medical Physics graduate program and a Residency program for Radiation Oncologists. He is also an instructor in a Medical Dosimetry program. Mr. de Boer has been active in AAPM being a specialty meeting chair, member and chair of several committees, member of education council and liaison to AAMD for several years. He is board certified by the ABR in Therapeutic Medical Physics and is a licensed Medical Physicist in the state of New York. He also acts as a site reviewer on behalf of ACRO. Mr. de Boer has 17 peer reviewed publications, 41 conference proceedings and 17 invited presentations.

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SONJA DIETERICH, PhD

Sonja Dieterich received her PhD in physics from Rutgers University. She joined Georgetown University in Washington D.C, first as a postdoc, then as an assistant professor in medical physics. After becoming ABR board-certified in therapeutic medical physics, Dr. Dieterich joined Stanford University in 2007 as Chief of Stereotactic Radiosurgery, and from 2009 to 2012 as Chief of Clinical Physics. In 2012, she moved to UC Davis where she serves as physics residency co-director and is involved in clinical research with the Veterinary Radiation Oncology Department. Since initiating TG-135, Dr. Dieterich has enjoyed volunteering for AAPM as a TG, Working Group, Subcommittee and Committee member. Starting in 2014, she is serving as Board Member at Large. In addition to her work with AAPM, she is also active volunteering with the ABR and ASTRO. Most recently, she was able to realize her vision to publish a Clinical Physics teaching text with co-authors Dr. Ford and Dr. Pavord.



WARREN D'SOUZA, PhD

Warren D'Souza received his PhD degree from the University of Wisconsin in 2000 and an MBA from Duke University - The Fuqua School of Business, where he was named a Fuqua Scholar. He joined the Department of Radiation Physics as an Instructor at the University of Texas M. D. Anderson Cancer in 2000. In 2002, he joined the Department of Radiation Oncology at the University of Maryland School of Medicine, where he is now Professor and Chief of the Division of Medical Physics and an affiliate faculty in the Fischell Department of Bioengineering. He has served as a principal investigator on several extramural peer-reviewed and industry-sponsored grants and trained 14 post-doctoral fellows and graduate students. He has published over 70 articles in peer-reviewed journals and holds 6 US patents. He has served on several AAPM committees and is board certified by the American Board of Radiology in Therapeutic Medical Physics.



MARTIN FRASER, MS

Martin Fraser is a highly respected senior medical physicist with over 35 years of experience, primarily in the community setting. Martin has been an avid volunteer for the profession, beginning in 1988 with his local chapter. In 1990 he worked with the Patterns of Care study, precursor to the ACR's ROPA.

He has devoted over 20 years to the ROPA program, in surveys, training and in lecturing at ACR national meetings. He presently sits on the Exec Board of the MA ACR chapter and was elected Fellow of the ACR in 2011. Martin has been extremely active in the NEAAPM, and has served the chapter for 20 years as Scientific Program chair, President, Board Representative to AAPM, and as the Chair of various committees. Mr. Fraser is also active on a national level, and is a long standing member of the AAPM's Professional Council including a term as chair and vice chair of CPC and on various TGs. He is an original member of the JMPLSC, and was selected as Captain of the MA Committee on Medical Physics Licensure, 2008 - present.



ERIC FORD, PhD

Eric Ford received his PhD in experimental astrophysics from Columbia University in 1997. After a three-year postdoctoral fellowship, he migrated into Medical Physics, training in the postdoctoral residency program at Memorial Sloan-Kettering Cancer Center. He served on the faculty of Johns Hopkins

University for six years and is currently associate professor at University of Washington, Seattle. Dr. Ford has served in many capacities in AAPM including chair of the Work Group on Prevention of Errors and therapy scientific director for the AAPM Annual Meeting. Dr. Ford is board certified by the American Board of Radiology in Therapeutic Medical Physics and is active professionally in ASTRO. He currently chairs the ASTRO Multidisciplinary QA Committee and is a member of the healthcare advisory council that oversees the Radiation Oncology Incident Learning System of AAPM and ASTRO. Dr. Ford is PI on a federal grant and has authored over 100 peer-reviewed publications.



DAVID HINTENLANG, PhD

David Hintenlang earned his PhD from Brown University in 1985 and subsequently gained clinical experience at Walter Reed Army Hospital. He then joined the University of Florida where he is an Associate Professor of Biomedical Engineering and Medical Physics and is the Medical Physics Graduate Program Director. He is board certified by the ABR, and licensed in the State of Florida, where he manages accreditation programs under the auspices of the ACR and TJC for multiple facilities and medical imaging modalities. He has held multiple committee and leadership roles in AAPM, CAMPEP, and ACMP, including Vice Chair of ACMP. He is a Fellow of the ACMP, and is a recipient of the AAPM Distinguished Service Award. He has over 90 peer reviewed publications with recent research directed toward the development of novel measurement systems to quantify and record patient specific doses from fluoroscopy, computed tomography and mammography.



REBECCA HOWELL, PhD

Rebecca Howell received her MS (2001) and PhD (2005) from the University of Texas Health Science Center San Antonio. She is certified by the American Board of Radiology (ABR). She worked at Emory University for several years and joined MD Anderson Cancer Center (MDACC) in 2007. Her clinical and research efforts focus on radiation therapy (RT) for breast cancer and RT late effects. Dr. Howell has published > 40 peer-reviewed papers. Within the American Association of Physicists in Medicine, she is/was on four task groups and two subcommittees and is an associate editor for Medical Physics Journal. Dr. Howell is strongly committed to education. She is a member of the CAMPEP Graduate Education Program Review Committee, the ABR Radiation Oncology Physics Exam Committee, and the American Society for Radiation Oncology Physics Core Curriculum Subcommittee. Within MDACC, she is very active in the graduate program and is the primary physics instructor for the radiation oncology residents.



KWOK LEUNG LAM, PhD

Kwok Leung Lam received his PhD degree from the University of California, Los Angeles in 1986. After completing postdoctoral training in radiology at the University of Chicago and in radiation oncology at the University of Michigan, he joined the Department of Radiation Oncology at the University of Michigan in 1991, where he is currently a Clinical Professor. At the University of Michigan, he has been a lecturer in medical physics courses for medical residents and radiation therapists for over 20 years, has participated in training 21 medical physics residents, 2 medical physics fellows, and has been on the dissertation committees of 2 PhD students. He is board certified by the American Board of Radiology in Therapeutic Radiologic Physics. He has served as member of 4 task groups and a subcommittee in the American Association of Physicists in Medicine. He holds a patent and has published 53 papers in peer-reviewed journals.



LIJUN MA, PhD

Lijun Ma received his PhD from the UNC-Chapel Hill in 1995. After completing his training at Stanford and UCSF, he joined the Department of Radiation Oncology at the University of Maryland and in 2006 returned to UCSF where he is now Professor in Residence of Radiation Oncology Physics and Director of the Physics Residency Program. Dr. Ma has served in AAPM on many task groups and working groups. He currently co-chairs the NTCP spine subcommittee and serves on the Editorial Board of Medical Physics. He is board certified by the American Board of Medical Physics with ABR equivalence in Radiation Oncology Physics and is a member of the American College of Radiology. He has also been active professionally in the International Society of Stereotactic Radiosurgery and currently serves on the executive board. Dr. Ma has published over 100 papers, over 20 book chapter and is a holder of 3 international patents.



PATRICK McDERMOTT, PhD

Patrick McDermott received a PhD in Physics and Astronomy from the University of Rochester (NY) in 1985. In 1993 he received a masters degree in Radiological Physics from Wayne State University. He is certified by the American Board of Medical Physics. From 1993 – 2005 he was a faculty member in the medical physics graduate program at Wayne State University. He taught numerous graduate courses, advised students, supervised masters essays, served on numerous faculty committees, taught medical residents and ran an internship program. In 2010 he published a textbook: “The Physics and Technology of Radiation Therapy” with Colin Orton. This text was written for non-physicists, particularly for physician residents and is used by many residency training and RTT programs. He has served on a number of national committees pertaining to resident education and he is now the Director of Physics Education at William Beaumont Hospital. He is the author of the forthcoming book: “Tutorials in Radiotherapy Physics: Advanced Topics with Problems and Solutions.”



MALCOLM McEWEN, PhD

Malcolm McEwen received his MSc in Medical Physics from University College, London in 1993 and his PhD in Radiation Physics from the University of Surrey in 2002. From 1989 to 2002 he worked at the National Physical Laboratory in the UK before moving to the Ionizing Radiation Standards group at the National Research Council, Canada. He is currently the scientific lead for the IRS group, which develops primary air kerma and absorbed dose standards for x-rays, gamma rays, and electron, photon and neutron beams. His research interests focus on absorbed dose calorimetry and the performance of secondary reference dosimeters. He serves on a number of national and international organizations, including as Director of the Ottawa Medical Physics Institute, Chair of the AAPM's Calibration Laboratory Accreditation Subcommittee and Chair of the BIPM's Comité consultatif des rayonnements ionisants.



MICHAEL MITCH, PhD

Michael Mitch received his PhD in Physics from Penn State University in 1994. After completing post-doctoral work at the University of Maryland and the National Institute of Standards and Technology (NIST), he joined the staff of the NIST Dosimetry Group in 1998. He developed calibration and measurement methods for the dosimetry of low-energy photon-emitting prostate brachytherapy seeds, receiving the Department of Commerce Bronze Medal in 2004. In 2010, he became Leader of the NIST Dosimetry Group. He serves as a member of several AAPM committees and since 2001 has participated as NIST representative on assessment teams for the AAPM Accredited Dosimetry Calibration Laboratories. He has served on the Editorial Board of Medical Physics, and is currently a Senior Associate Editor. He is NIST delegate to the Consultative Committee on Ionizing Radiation (Section I) of the International Committee for Weights and Measures and a member of the Brachytherapy Standards Working Group.



EDUARDO MOROS, PhD

Eduardo G. Moros received a PhD degree in Mechanical Engineering from the University of Arizona in 1990. After a year at the University of Wisconsin-Madison, he joined the Mallinckrodt Institute of Radiology at Washington University where he served as faculty until 2005. He then joined the University of Arkansas for Medical Sciences as Director of the Division of Radiation Physics. Since 2011, he has been the Chief of Medical Physics at the Moffitt Cancer Center. Dr. Moros has served AAPM in many capacities, notably, as Associate Editor of Medical Physics for eight years. He continues to serve in various working/task groups and as Section Editor of the Journal of Applied Clinical Medical Physics. Dr. Moros is an ABR diplomate in Therapeutic Radiologic Physics. He is an avid reviewer of research applications and served as member of the RTB study section. He has published more than 135 peer-reviewed papers and has been a principal investigator on several NIH and industry grants.



BALDEV PATYAL, PhD

Baldev Patyal received his PhD in Physics from Washington State University in 1988 and his MS in Medical Physics from the University of Texas Health Sciences Center, San Antonio, in 1996. He has been at Loma Linda University Medical Center since 1998, where he is currently Chief Physicist (since 2004)

and Associate Professor. He is coordinator for physics lectures and was awarded a Teacher of the Year Award by the Association of Residents in Radiation Oncology. In 2005 he established the JRCERT-accredited Medical Dosimetry Program. Currently he is developing a residency program in medical physics, to start in 2015. Dr. Patyal holds memberships in AAPM, ASTRO, and ACR, has served as faculty in the educational programs of AAPM, ASTRO, and PTCOG, and is a member of the AAPM Working Group on Particle Beams. He has published numerous papers and abstracts, and has given several international invited talks on proton therapy.



STEPHEN RIEDERER, PhD

Stephen Riederer received a PhD from the Medical Physics Program of the University of Wisconsin – Madison in 1979. He worked from 1980 to 1983 for GE Medical Systems and from 1983 to 1988 at Duke University (Radiology). Since 1988 he has been the Director of the MR Laboratory and a member of

the Physics Division of the Department of Radiology of Mayo Clinic, Rochester MN. AAPM activities include the Editorial Board of Medical Physics (1986-1992) and Chair of the Physics Program of RSNA/AAPM (1996-1998). He served as President of ISMRM (1994). He was a member of the NIH Diagnostic Radiology Study Section (1989-1993) and of the Scientific Advisory Committee of The Whitaker Foundation (1997-2003) which funded many young medical physicists. He has been PI of NIH R01 grants continuously since 1984. He has been principal advisor to 26 students earning the PhD degree, many of whom have gone on to careers in medical physics. His research areas of interest have been in the imaging physics of x-ray computed tomography, digital subtraction angiography, and magnetic resonance imaging.



VYTHIALINGAM SATHIASSEELAN, PhD

Vythialingam Sathiaselalan is currently the Chief Physicist in the Department of Radiation Oncology, Northwestern Memorial Hospital. He holds an academic appointment as an Associate Professor of Radiation Oncology at Feinberg School of Medicine, Northwestern University. He received his PhD degree from the University of Bradford in 1981. He is board certified in Therapeutic Radiological Physics by the American Board of Radiology. He is or was a member of different professional organizations including AAPM and ASTRO. He has been very active in the Midwest Chapter of AAPM over the past several decades holding various elected positions including the Chapter President. His research currently focuses on patient safety and dosimetry, optimization of radiation treatments, GammaKnife, brachytherapy, development of improved electromagnetic techniques for heating deep-seated and superficial tumors and numerical modeling of electromagnetic interaction with biological objects. He is also actively involved in teaching and mentoring of medical physics residents, physician residents, therapy students and undergraduate and graduate students. He has been active as an ABR examiner over the past decade. He has published 42 papers as main or co-author in peer reviewed journals and over 60 abstracts.



CHARLES SHANG, MSc

Charles Shang started his career as a medical physicist with a postdoctoral fellowship in 1987 at UHS/Chicago Medical School, following graduation from medical school and a medical residency in China. Soon after receiving an MSc in Radiation Health (Physics) from the University of Pittsburgh, he took a position at a community hospital in Connecticut, with an association with Yale University. He joined Lynn Cancer Institute in Florida in 1993, where he currently serves as the Director of Medical Physics. He holds ABR certification in all three physics subspecialties. Charles Shang was instrumental in early development of the prostate implant program in Waterbury, Connecticut in the early 1990's, pioneering MLC based IMRT using the CMS planning system in early 2001. His hand-held 3D stereotactic needle guider for CT guided needle biopsy was introduced at the 1989 RSNA Annual Meeting. His research on 3D virtual reality simulation for radiation therapy also became well recognized, along with projects involving a 6D couch and a 3D rotatable scanning system. He has dedicated himself to developing a bridge between physics and medicine.

He has trained numerous domestic and international radiation oncologists and medical physicists. As an Adjunct Professor, he supervised 4 MS Medical Physics students. At AAPM, he chaired the Partners in Physics (PIP) Subcommittee as the curator for the PIP program, chaired TG103 and effectively revived this program. He also served as president of the Florida chapter, and is current chair of Asian Oceanic Affairs Subcommittee. He has more than 25 invited lectures, 50 abstracts/proceedings, and 10 peer-reviewed paper publications.



MICHAEL SHARPE, PhD

Michael B. Sharpe worked at the London Regional Cancer Centre prior to pursuing a PhD in Medical Biophysics, which he obtained in 1997 from the University of Western Ontario. He moved to William Beaumont Hospital, Royal Oak, MI, where he served as a Clinical Physicist until 2002, when he moved to Toronto and UHN's Princess Margaret Cancer Centre. Dr. Sharpe is currently Associate Head of Radiation Physics and Associate Professor in both Radiation Oncology and Mechanical and Industrial Engineering, University of Toronto. He is also the Radiation Physics Quality Lead for Cancer Care Ontario. Dr. Sharpe has served AAPM as a continuing education teacher, a member of several AAPM task groups and working groups, and has advanced the field through the development, validation, and application of radiotherapy and imaging technologies on which he has published over 70 papers in peer-reviewed journals and 11 book chapters, and has co-authored several patents.



RUSSELL TARVER, MS

Russell Tarver received his Masters degree in 1998 from the University of Texas, MD Anderson Cancer Center, and is board certified in therapy physics by the ABR. Working in the Dallas Metroplex area, he has been an active member of the Southwest Regional Chapter as an officer and as a current and past chapter representative to the AAPM BOD. He enjoys teaching and held an adjunct faculty appointment at MD Anderson, teaching physics classes for the Therapy and Dosimetry programs. His volunteer efforts with AAPM involve practical and professional issues, mostly through committee work focusing on the practice of Medical Physics. He continues to be involved in developing the AAPM Annual Meeting program as the Professional Program Director. He has also presented on professional issues at ASTRO, AAPM, ACMP, and regional

chapter meetings. He is currently the Director of Radiation Oncology / Physics at the Center for Cancer and Blood Disorders in Fort Worth Texas.



GEORGIA TOURASSI, PhD

Georgia (Gina) Tourassi received her PhD in Biomedical Engineering in 1993 from Duke University. After graduation, she continued her research in medical imaging and computer-aided diagnosis as first a research associate and then as faculty rising to the rank of Associate Professor of Radiology and

Medical Physics within the Duke University Medical Center. In 2011, she became Director of the Biomedical Sciences and Engineering Center at Oak Ridge National Laboratory, and in 2013 she took on additional leadership at ORNL as Director of the Health Data Sciences Institute. She also serves as an Adjunct Professor of Radiology at the University of Tennessee at Knoxville. Dr. Tourassi is regarded as one of the leaders in computer-aided diagnosis (CAD) research in terms of advanced neural network design, especially in the role of similar case retrieval. Her contributions are indicated by her multiple peer-reviewed grants (from NIH, DOD), over 60 peer-reviewed journal publications, over 100 conference proceedings papers, and an R&D100 award. She is also a Fellow of the American Institute of Medical and Biological Engineering.



CHING-CHONG JACK YANG, PhD

Ching Chong (Jack) Yang received his PhD degree from the University of Florida in 1994. Dr. Yang has been assistant professor at the University of Miami, then became the chief physicist at Hackensack University Med Center after moving to NJ in 1997. He currently serves as the Chief Physicist at

Monmouth Med Center, at Long Branch, NJ. He is also the Associate Editor of the Journal of Medical Dosimetry and Chairman of the board of NACMPA (North American Chinese Medical Physicists Association). He is in charge of all clinical duties and acts as a senior consultant to the Radiation Oncology Department. He is board certified by the American Board of Radiology in Therapeutic Medical Physics and is a member of the American Society for Radiation Oncology. He has also been active professionally in the American College of Radiology currently as a physics surveyor for accreditation. Dr. Yang has been heavily involved in educational activities, promoting advanced clinical physics, and has supervised two PhD students.

John S. Laughlin Young Scientist Award



KATIA PARODI, PhD

Katia Parodi received her PhD in Physics from the University of Dresden, Germany, in 2004. She then worked as a postdoctoral fellow at Massachusetts General Hospital and Harvard Medical School in Boston, USA. In 2006 she returned to Germany as a tenured scientist and group leader at the Heidelberg Ion Therapy Center, obtaining in 2009 her Habilitation from the Heidelberg University. Since 2012 she is a full professor and Chair

of Medical Physics at the Physics Faculty of the Ludwig-Maximilians-University (LMU) in Munich, where she initiated a dedicated curriculum for Medical Physics within the Physics MSc. She also retained a secondary affiliation with the Heidelberg Ion Therapy Center. Her main research interests are in high precision image-guided radiotherapy with a special focus on ion beams, from advanced computational modeling to experimental developments and clinical evaluation of novel methods for in-vivo ion range monitoring. Katia Parodi has been invited speaker and committee member at many conferences, and contributed to over 80 publications in peer reviewed journals, more than 150 conference contributions, five book chapters and a couple of patents. For her work she received several national and international recognitions, including the Behnken Berger Award and the IEEE Bruce Hasegawa Young Investigator Medical Imaging Science Award. She is currently serving as member of the editorial boards of Medical Physics, Physics in Medicine and Biology and Radiation Oncology, besides being involved in the AAPM Working Group 4 on Outreach to Related Communities. Since 2015 she is also vice president of the German Society for Medical Physics (DGMP).

Marvin M. D. Williams Professional Achievement Award



CHRISTOPHER MARSHALL, PhD

Dr. Marshall received his BSc in Physics from Bristol University in 1963 and a PhD in Radiation Physics and Biology from London University in 1967 under Joseph Rotblat. Invited to join NYU School of Medicine by Colin Orton in 1969, he rose to the rank of Professor of Radiology, now Emeritus. He initiated a radiation safety and diagnostic physics program, which evolved into an independent Department covering the school, three hospitals and the University. He taught medical students, residents and fellows and authored texts and research articles. He worked on early CT development, resulting in one patent. He joined RAMPS in 1969, served on committees and as President and was engaged with many regulatory issues in NY City and State. He served on several committees of the AIP, on its Board for 10 years and on its Executive Committee, and chaired two search committees. His AAPM activities span 45 years. He chaired the Publications Committee and an ad-hoc on the Journal that underpinned its subsequent editorial and financial success. He has served as member, chair or consultant to the JBMC from its inception. He chaired two HQ site review committees and the ad-hoc that recommended relocation of HQ to the DC area. He was Chair of Rules and Parliamentarian and led a rewriting of the Rules. He chaired an ad-hoc on the AAPM Mission, which recommended the current statements for branding purposes and as a foundation for strategic planning. He served for almost 7 years as the first Website Editor.

REINVIGORATING SCIENTIFIC EXCELLENCE



JEAN M. ST. GERMAIN, MS

Following completion of graduate study at Rutgers University and a fellowship at Brookhaven National Laboratory, she was appointed as a Fellow in the Department of Medical Physics at Memorial Sloan Kettering under John Laughlin and Garrett Holt. Following completion of her fellowship, she was appointed to the faculty and rose to the rank of Associate Attending Physicist and subsequently, Attending Physicist. She

served as interim chair of the Department of Medical Physics from 2007 to 2010 and is now Vice-Chair for Clinical and Educational Affairs and Clinical Member at the Memorial Sloan Kettering Cancer Center. She is a licensed medical physicist in New York State and is certified in comprehensive health physics by the ABHP and in medical health physics by the ABMP. She has served AAPM as National Secretary, Chair of the Rules Committee, Parliamentarian, founding Chair of the Development Committee, Member of the Governing Board of the AIP, Treasurer of the American Academy of Health Physics, Chair of the Examining Panel in medical health physics and Vice-Chair of the American Board of Medical Physics. She has served four terms on the AAPM Board of Directors. In the Greater New York area, she served as President of RAMPS [AAPM Greater NY Chapter] and served three terms as President of the Greater NY Chapter of the HPS. She is a Fellow of AAPM and of the Health Physics Society. She delivered the Failla Memorial Lecture for RAMPS and the HPS Greater New York Chapter. Along with her colleagues, she received the Varian Award for the Best Professional Paper, *Journal of Applied Clinical Medical Physics* in 2004.

Edith H. Quimby Lifetime Achievement Award



LARRY DeWERD, PhD

Larry DeWerd, PhD, FAAPM is a Professor of Medical Physics at the University of Wisconsin – Madison. After earning his PhD working under John Cameron in 1970, Professor DeWerd went to the University of Washington where he helped form the Northwest chapter of AAPM. Returning to the University of Wisconsin, he started the Radiation Calibration Laboratory (RCL). In 1981, the RCL was expanded to include an Accredited Dosimetry Calibration Laboratory (ADCL). As the lab increased its research focus, the RCL was reorganized under the Medical Radiation Research Center to support graduate students. Professor DeWerd has served AAPM in a number of capacities, including Chair of the Brachytherapy subcommittee, memberships on the Therapy committee, the Calibration Laboratory Accreditation subcommittee, and a number of other working and task groups. He has served as the President of the North Central Chapter of AAPM, and is a Fellow of AAPM. Larry also served as President of the Council of Ionizing Radiation Measurements and Standards, and received the Randall Caswell award in 2008 for distinguished achievements in the field of ionizing radiation measurements and standards. He has authored or co-authored over 180 peer-reviewed research papers and is a three-time recipient of the Farrington Daniels award for the best dosimetry paper in Medical Physics in 2008, 2011, and 2014. He is the author of “The Phantoms of Medical and Health Physics,” published by Springer. Over 70 graduate students in the UW Department of Medical Physics have benefited from Larry’s knowledge and guidance.



KUNIO DOI, PhD

Kunio Doi was born in 1939 in Tokyo, Japan, and has received all of his education in Japan, including a PhD in 1969 in Applied Physics at Waseda University. He was working as Chief in Radiography Research, Kyokko Research Laboratories, Dai Nippon Toryo Co. Ltd in Chigasaki, Japan (1962-1969). In 1969, he was appointed as Research Associate (Assistant Professor) in the Department of Radiology, the University of Chicago, and in 1977 became Professor and Director of Kurt Rossmann Laboratories for Radiologic Image Research, University of Chicago. He was Director of Graduate Programs in Medical Physics (1985-1998), Associate Chairman for Research in the Department of Radiology (1994-2003), and appointed as Ralph W. Gerard Professor in the Biological Sciences in 1994, and is now Emeritus Professor at the University of Chicago since 2009. He was appointed as President, Gunma Prefectural College of Health Sciences, Maebashi, Japan (2009-2015). Kunio Doi was a Commission Member of International Commission on Radiation Units and Measurements (ICRU) (1989-2010) in contributing to imaging activities by ICRU. He was an Integration Panel Member, Breast Cancer Research Program, the United States Army Medical Research and Materiels Command, DOD. He was Associate Editor, Medical Physics (1986-1998), and is currently Editor-in-Chief, Radiological Physics and Technology, the Official Journal of the Japanese Society of Radiological Technology and the Japan Society of Medical Physics. Kunio Doi published more than 610 articles, and was involved in training of students and research staff, yielding more than 60 Professors at Academic Institutions around the world. His contribution in research includes the development of a concept of computer-aided diagnosis (CAD), which is clinically used widely for the detection of breast cancer.

REINVIGORATING SCIENTIFIC EXCELLENCE



MELISSA MARTIN, MS

Since 1995 Melissa Martin has been President of Therapy Physics Inc., a consulting medical physics group of certified medical physicists based in Southern California which provides diagnostic medical physics services throughout the Western United States. She received her MS in Medical Physics from UCLA and is certified in Radiological Physics by the American Board of Radiology.

Melissa has extensive experience providing shielding design reports for radiation therapy vaults for all types of therapy equipment having completed these reports for over 400 vaults throughout the world. She has recently completed a three year appointment as the US Representative to the ISO Technical Committee writing the ISO Standard on "Radiation Protection for Medical and Veterinary Use of Linear Accelerators." Melissa was a hospital based physicist for over 15 years working in both diagnostic imaging and radiation therapy departments developing her expertise in diagnostic imaging physics, particularly mammography physics. Melissa was one of the AAPM physicists who developed the MQSA program. She has been very active in AAPM in both the local Southern California Chapter and the national AAPM serving as a national Board member for 17 years as Chapter Representative, Board Member at Large, Treasurer, and lately as the Administrative Council Chair. Melissa has served AAPM as a liaison to the CRCPD for over twenty years working to build a strong working relationship between AAPM and the regulatory community. Melissa is a Fellow of AAPM, the ACR, and the ACMP and has worked with the ABR for the past ten years on both the written and oral exams in Diagnostic Medical Physics.

REINVIGORATING SCIENTIFIC EXCELLENCE

William D. Coolidge Award Recipients

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

REINVIGORATING
SCIENTIFIC EXCELLENCE

AAPM William D. Coolidge Award Recipient for 2015



MARYELLEN L. GIGER, PhD

Maryellen (Lissak) Giger, PhD is currently the A.N. Pritzker Professor of Radiology / Medical Physics at The University of Chicago, as well as Vice-Chair of Radiology for Basic Science Research. She received her BS in physics and mathematics from Illinois Benedictine College in 1978, her MSc in physics from University of Exeter, England in 1979, and her PhD in medical physics from the University of Chicago in 1985. From 1998 to 2013, at the University of Chicago, Giger served as Director of the CAMPEP-accredited Graduate Program in Medical Physics/ Chair of the Committee on Medical Physics. She was also instrumental in establishing the University's CAMPEP-accredited Medical Physics Certificate and Imaging Physics Residency programs. For over 25 years, Giger has conducted imaging research on computer-aided diagnosis and quantitative image analysis in the areas of breast cancer, lung cancer, prostate cancer, lupus, and bone diseases. Her research in computational, multi-modality image-based analyses of breast cancer for risk assessment, diagnosis, prognosis, and response to therapy has yielded various clinically-translated components, including methods & algorithms for computer-aided detection. She is now using these image-based phenotypes in radiomics and imaging genomics association studies. Giger has more than 170 peer-reviewed publications, has more than 30 patents and has mentored over 100 graduate students, residents, medical students, and undergraduate students. Giger has been a member of the American Association of Physicists in Medicine (AAPM) for almost 30 years, and she has served AAPM in many ways including, for example, as Annual Meeting Scientific Program Director (1998-1999), Board Member (2000-2002), Treasurer (2004-2007), President (2009), Chair of the Board (2010), member of the Women's Professional Subcommittee (2011-present), and Chair of the AAPM Technology Assessment Committee (2013-present). Her leadership service to the medical physics community also includes various NIH study sections, Board member of the Commission on Accreditation of Medical Physics Educational Programs (CAMPEP) (2012-present), Board Member of SPIE (2012-2014), and Editor-in-Chief of the SPIE Journal of Medical Imaging (2013-present). Giger is a member of the National Academy of Engineering (2010), and a Fellow of AAPM (2001), AIMBE (2000), and SPIE (2014). In 2013, she was named by the International Conference of Medical Physics (ICMP) as one of the 50 medical physicists with the most impact on the field in the last 50 years.

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



Congratulations

to all of the Award Recipients!

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