

*American Association  
of  
Physicists in Medicine*



*Awards Ceremony*

*August 5, 2013  
Grand Ballroom  
J.W. Marriott  
Indianapolis, Indiana  
6:30 p.m.*



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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.

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# 2013 Program

Welcome and Presentation of Awards

John D. Hazle, Ph.D.

AAPM President

Honoring Deceased AAPM Members

AAPM Fellowships and Grants

Research Seed Funding Initiative

*Journal of Applied Clinical Medical Physics* Paper Awards

Jack Fowler Junior Investigator Award

John R. Cameron Young Investigator Awards

AAPM Award for Innovation in Medical Physics Teaching

Farrington Daniels Award

Sylvia Sorkin Greenfield 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

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Reception immediately following

## ~ AAPM Fellowships and Grants ~

**AAPM Support for Clinical Residency in Imaging Medical Physics** ~ AAPM and RSNA are partnering to provide matching support for new imaging physics residencies, either diagnostic or nuclear medicine. The recipients are: **University of Alabama-Birmingham - Michael Yester**, **Memorial Sloan-Kettering Cancer Center - Lawrence Rothenberg**, **University of Wisconsin - Frank Ranallo**.

**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: **Xenia Fave - UT MD Anderson Cancer Center**.

**Minority Undergraduate Summer Experience (MUSE)** ~ Designed to expose minority undergraduate university students to the field of medical physics by performing research or assisting with clinical service at a U.S. institutions (university, clinical facility, laboratory, etc.). The charge of MUSE is specifically to encourage minority students from Historically Black Colleges and Universities (HBCU), Minority Serving Institutions (MSI) or non-Minority Serving Institutions (nMSI) to gain such experience and apply to graduate programs in medical physics. The MUSE Fellows for 2013 are: **Brian Norman Allen, Michael Conner, Clay Contee, Yacinthe Dorsainvil, Kaitlyn Sukovich and Terrell White**.

**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, the 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 interest. Students are selected for the program on a competitive basis to be an AAPM summer fellow. Each summer fellow receives a stipend from the AAPM.. The Summer Undergraduate Fellows for 2013 are: **Alexander Antolak, Grant Coulston Emery, Rachel Ger, Krystal Marie Kirby, Celeste Ina Leary, Erica Ellis Mason, Matthew Scarpelli, Rachel Christine Schmidt, Andrew Jon Shepard and Blake Robert Smith**.

**Summer School Scholarships** ~ These scholarships are offered to applicants who are early in their careers in medical physics. The 2013 scholarship recipients are: **Yida Hu, Yongjun Zhai, Justin Ducote, Kelly Younge and Baozhou Sun**. In addition, Capintec Inc. sponsors two grants to assist with other expenses related to the Summer School. Capintec established these grants to honor the memory of Arata Suzuki, Ph.D., who was part of Capintec Inc. for more than 20 years. **Yida Hu and Yongjun Zhai** are the recipients of the **2013 Capintec Suzuki grants**.

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## ~ 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 2013 are:

**Adam Wang - Johns Hopkins University**  
**Stephen Dowdell - Massachusetts General Hospital**

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**~ 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:

**Magdalena Bazalova, Ph.D.**

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**~ John R. Cameron Young Investigator Awards ~**

Each year the 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, Ph.D.

**To be announced**

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**~ AAPM Award for Innovation in Medical Physics Teaching ~**

The Award for Innovation in Medical Physics Teaching 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:

**To be announced**

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**~ Farrington Daniels Award ~**

The Farrington Daniels Award for the best paper on Radiation Dosimetry published in *Medical Physics* in 2012 is presented to:

**Xiang Li, Ehsan Samei, Cameron H. Williams, W. Paul Segars, Daniel J. Tward,  
Michael I. Miller, J. Tilak Ratnanather, Erik K. Paulson and Donald P. Frush**

for their paper entitled "*Effects of protocol and obesity on dose conversion factors in adult body CT,*" *Medical Physics* 39, p. 6550 (2012).

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**~ Sylvia Sorkin Greenfield Award ~**

The Sylvia Sorkin Greenfield Award for the best paper (other than Radiation Dosimetry) published in *Medical Physics* for 2012 is presented to:

**Lin Chen, Craig K. Abbey, Anita Nosratieh,  
Karen K. Lindfors and John M. Boone**

for their paper entitled "*Anatomical complexity in breast parenchyma and its implications for optimal breast imaging strategies,*" *Medical Physics* 39, p. 1435 (2012).

~ **Journal of Applied Clinical Medical Physics Best Paper Awards** ~

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~ **Award of Excellence for an Outstanding Radiation Oncology Article** ~

The Award of Excellence for and Outstanding Radiation Oncology Article published in the *JACMP* in 2012 is presented to:

**Jonas D. Fontenot**

for the paper entitled "*Feasibility of a remote, automated daily delivery verification of volumetric-modulated arc therapy treatments using a commercial record and verify system,*" *Journal of Applied Clinical Medical Physics* 13, No. 2, p. 113 (2012).

~ **Award of Excellence for the Best Medical Imaging Article** ~

The Award of Excellence for the Best Medical Imaging Article published in the *JACMP* in 2012 is presented to:

**Marcus C. Bennett, David B. Wiant, Jacob A. Gersh, Wendy Dolesh,  
X. Ding, Ryan C. M. Best and J.D. Bourland**

for their paper entitled "*Mechanisms and prevention of thermal injury from gamma radiosurgery headframes during 3T MR imaging,*" *Journal of Applied Clinical Medical Physics* 13, No. 2, p. 54 (2012).

~ **Award of Excellence for the Best Radiation Measurements Article** ~

Award of Excellence for the Best Radiation Measurements Article published in the *JACMP* in 2012 is presented to:

**Stephen F. Kry, Richard Popple, Andrea Molineu and David S. Followill**

for their paper entitled "*Ion recombination correction factors (Pion) for Varian TrueBeam high-dose-rate therapy beams,*" *Journal of Applied Clinical Medical Physics* 13, No. 6, p. 318 (2012).

~ **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 the *JACMP* in 2012 is presented to:

**Jerry J. Battista, Brenda G. Clark, Michael S. Patterson, Luc Beaulieu, Michael B. Sharpe,  
L. John Schreiner, Miller S. MacPherson and Jacob Van Dyk**

for their paper entitled "*Medical physics staffing for radiation oncology: a decade of experience in Ontario, Canada,*" *Journal of Applied Clinical Medical Physics* 13, No. 1, p. 93 (2012).

### **~ Honorary Membership ~**

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

**Donald L. Miller, M.D.**

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### **~ Fellows ~**

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

**Jon A. Anderson, Ph.D.**

**Kish Chakrabarti, Ph.D.**

**Lili Chen, Ph.D.**

**Carl R. Crawford, Ph.D.**

**Jun Deng, Ph.D.**

**Michael J. Dennis, Ph.D.**

**Nesrin Dogan, Ph.D.**

**David M. Gauntt, Ph.D.**

**Kalpana M. Kanal, Ph.D.**

**Jeffrey P. Limmer, M.Sc.**

**Chihray Liu, Ph.D.**

**Osama R. Mawlawi, Ph.D.**

**Todd R. McNutt, Ph.D.**

**Christopher F. Njeh, Ph.D.**

**Douglas E. Pfeiffer, M.S.**

**Karl L. Prado, Ph.D.**

**Frank Van den Heuvel, Ph.D.**

**D. Allan Wilkinson, Ph.D.**

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### **~ Recognition of 50+ years of AAPM Membership ~**

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### **~ John S. Laughlin Young Scientist Award ~**

This award recognizes outstanding scientific achievement in medical physics for a young scientist member of the 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.

**Habib Zaidi, Ph.D.**

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### **~ Marvin M. D. Williams Professional Achievement Award ~**

This award recognizes an AAPM member for an eminent career in medical physics with an emphasis on clinical medical physics. The recipient of the 2013 AAPM Marvin M. D. Williams Professional Achievement Award is:

**Marilyn Stovall, Ph.D.**

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### **~ 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 2013 Award for Achievement in Medical Physics are:

**Caridad Borrás, D.Sc.**

**Norbert J. Pelc, Sc.D.**

**George Starkschall, Ph.D.**

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### **~ William D. Coolidge Award ~**

The 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 2013 AAPM William D. Coolidge Award is:

**Benedick A. Fraass, Ph.D.**



## ~ Honorary Membership ~

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**Donald L. Miller, M.D.**

Donald L. Miller, M.D. is the Chief Medical Officer for Radiological Health in the Office of In Vitro Diagnostics and Radiological Health of FDA's Center for Devices and Radiological Health. He earned a B.A. in Molecular Biophysics & Biochemistry from Yale University in 1972 and an M.D. from New York University in 1976. After his internship, he completed a residency in diagnostic radiology and a fellowship in interventional radiology at the New York University Medical Center. He is a Fellow of the Society of Interventional Radiology (SIR) and of the American College of Radiology. Prior to joining FDA, Dr. Miller engaged in clinical practice for three decades. During most of this time he was a Professor of Radiology at the Uniformed Services University of the Health Sciences. His research interests have centered on radiation protection in medicine. He chaired SIR's Safety and Health Committee from 1999 to 2011. He was elected to membership on the National Council on Radiation Protection and Measurements (NCRP) in 2006, and currently serves as Co-Chair of NCRP Program Area Committee 4 (Radiation Protection in Medicine). He became a member of International Commission on Radiological Protection (ICRP) Committee 3 (Protection in Medicine) in 2010, and is currently Vice-Chair of that committee. He is a consultant to the International Atomic Energy Agency and the World Health Organization on issues related to radiation protection of patients and staff. Dr. Miller has authored or co-authored more than 160 publications in peer-reviewed journals and several NCRP reports and ICRP publications.

## ~ Fellows ~

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**Jon A. Anderson, Ph.D.**

Jon A. Anderson received his Ph.D. degree in Physics from the University of Texas at Dallas in 1980. After working on projects using gamma-ray spectroscopy for well logging (Atlantic Richfield Company, 1980-1986) and for studying nuclear isomeric states as laser gain mechanisms (University of Texas at Dallas, 1986-1989), he joined the Radiology Faculty at UT Southwestern Medical Center in 1989. He designed ultrasound systems for characterizing bone mechanical properties and experimental gamma cameras using scintillating optical fibers before becoming active in clinical medical physics in 1995. Dr. Anderson is currently Professor of Radiology and Director of the Diagnostic Clinical Physics Division. He is board certified by the American Board of Radiology in Diagnostic Radiologic Physics (1998) and Medical Nuclear Physics (2000). He has served the AAPM on Task Groups (111, 126, 108 [ex officio]) and Subcommittees (Nuclear Medicine, Education Of Physicians, Radiation Protection).



### **Kish Chakrabarti, Ph.D.**

Kish Chakrabarti received his Ph.D. in solid state physics from Oklahoma State University in 1984, working on radiation defects in solids. He did his postdoctoral research work on radiation defects and lasing actions in solid state lasers. He joined the Naval Surface Warfare center in 1987 and worked on optically stimulated luminescence and laser heated dosimeters, optical and x-ray imaging. After the Mammography Quality Standards Act (MQSA) passed, he joined FDA's Division of Mammography in 1994 and took a lead in developing and writing regulations on quality control test requirements. He authored the final regulations on quality assurance under MQSA. Since the approval of first full field digital mammography system, he leads the Agency in developing and reviewing proper QC test requirements. He received funding from FDA to perform research in FFDM, DBT and CT. He supervised M.S. and Ph.D. students and staff fellows. He has more than 150 published and presented papers and holds two US patents. He is a member of several AAPM committees and Co-chairs TG245.



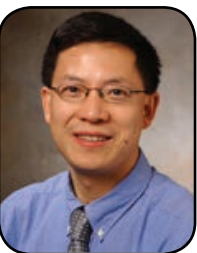
### **Lili Chen, Ph.D.**

Dr. Chen received her Ph.D. in medical physics and biophysics from the Institute of Cancer Research and Royal Marsden Hospital, University of London, U.K. in 1994. She was a postdoctoral fellow at Toronto University and a postdoctoral fellow and staff member at Stanford University before joining Fox Chase Cancer Center in 2001. Currently, she is an associate professor of the Department of Radiation Oncology. She has over 60 peer reviewed papers and book chapters. She is a principal investigator for several research awards from U.S. federal agencies and nonprofit foundations. She has served on a number of task groups and committees in AAPM and other scientific societies, and on several grant review panels. She personally trained 12 summer students, medical physics assistants, and radiation therapy physics postdoc/residents.



### **Carl R. Crawford, Ph.D.**

Carl Crawford is president of Csuptwo, LLC. Dr. Crawford was the Technical Vice President of Corporate Imaging Systems at Analogic Corporation, where he led the application of image processing techniques for medical and security scanners. He was also employed at General Electric Medical Systems, where he invented the enabling technology for helical scanning for CT scanners, and at Elscint, where he developed cardiac CT scanners. He also has developed technology for MRI, SPECT, positron PET, ultrasound imaging, and dual energy imaging and automated threat detection algorithms based on computer aided detection. Dr. Crawford has a doctorate in electrical engineering from Purdue University, is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and is an associate editor of *IEEE Transactions on Medical Imaging*. Dr. Crawford has published 23 papers in peer-reviewed journals and has 86 United States Patents.



### **Jun Deng, Ph.D.**

Jun Deng received his Ph.D. in physics from University of Virginia in 1998. After his postdoctoral fellowship at Stanford in 2001, he joined Yale-New Haven Hospital and Yale University, where he is now an Associate Professor of Therapeutic Radiology and an ABR board-certified medical physicist. Dr. Deng has served on numerous committees, task groups and working groups in AAPM, ASTRO and RSNA. He was the Theme Co-chair of the 2012 World Congress on Medical Physics and Biomedical Engineering, and is the President-elect of the Connecticut Chapter of AAPM in 2012. Dr. Deng has been a Guest Associate Editor for *Medical Physics* and on the International Advisor Board for *Physics in Medicine and Biology* since 2003. Dr. Deng has over 50 peer-reviewed publications and over 30 invited national and international lectures. He has supervised 3 Ph.D. students and is a Fellow of Institute of Physics and an Adjunct Professor of Tianjin University at Tianjin, China.



### **Michael J. Dennis, Ph.D.**

Michael Dennis received a bachelor's degree in physics from Xavier University, masters degree in medical physics under James Kereiakes from the University of Cincinnati, and his Ph.D. under Robert Waggner in radiological physics from the University of Texas Health Science Center at San Antonio. He previously was medical physicist at Allegheny Hospital in Pittsburgh before becoming Manager of CT Technical Applications for General Electric Medical Systems and then marketing manager for GE

Non-Destructive Systems and Services for their industrial computed tomography and ultrasonic test equipment. Dr. Dennis has been the director of the academic and clinical diagnostic medical physics program at the hospital and College of Medicine for the past eighteen years and is a part-time faculty member of the Thomas Jefferson University executive master's degree program for technologist. He has mentored over 18 graduate students in addition to serving on 44 graduate student committees. Research activities have included industrial CT nondestructive testing and collaborations on the use of x-rays, nuclear medicine, CT and MRI as tools to evaluate a number of anatomical and functional systems including joint and spine function, cortical thickness measurements, and the use of fMRI with amputation pain and in PTSD. Dr. Dennis has been active within the American Association of Physicists in Medicine, in particular the Education Council, has been involved with the American Registry for Radiologic Technologist's CT Certification Exam and the American Board of Radiology radiologist board exam generation process and is active in the American College of Radiology CT and MRI modality accreditation programs.



### **Nesrin Dogan, Ph.D.**

Dr. Nesrin Dogan received her Ph.D. in Nuclear Engineering from the University of Michigan in Ann Arbor in 1993. After completing her post doctoral fellowship in the Radiation Oncology Department at the University Michigan in 1995, she joined CMS., inc. in St. Louis. In August 1998, she joined the medical physics faculty at Loyola University Chicago Medical School. In 2003, Dr. Dogan joined the medical physics faculty at VCU as an IMRT group leader, becoming a professor in 2010, clinical physics

residency director in 2006, and clinical physics director in 2007. In November 2012, Dr. Dogan joined the Radiation Oncology Department at the University of Miami as Professor, Vice Chair and Director of Medical Physics. Dr. Dogan is board certified by the ABR in Therapeutic Radiologic Physics. She has published over 30 papers in peer-reviewed journals and over 50 abstracts. She is one of the associate senior editors for the *International Journal of Radiation Oncology, Biology, Physics Journal*. She has served on a variety of committees for the AAPM, as Member of TG-119, President of MAC-AAPM and AAPM Board Member as the MAC-AAPM Chapter Representative.



### **David M. Gauntt, Ph.D.**

Dr. Gauntt received his B.S. in Physics from MIT in 1983 and his Ph.D. from Stanford University in 1990. He worked as a medical physics resident and post-doctoral fellow at UAB Medical Center in Birmingham Alabama from 1990 to 1992. He moved to Lunar Corporation, working to develop new x-ray bone densitometers, and then X-Ray Imaging Innovations, where he was the principle investigator in several Phase II SBIR grants to develop new techniques for scatter removal in diagnostic x-ray imaging.

In 2011 he accepted a faculty appointment at UAB Medical Center, where he has added clinical and teaching duties to his research interests. He served for seven years as the Treasurer of the SEAAPM, developing the online registration system and contributing to the constitutional reform of the chapter. He holds eight US patents, and is the first or second author of ten papers published in refereed journals, numerous other publications and talks, and sole author two medical physics education computer programs.





### **Kalpana M. Kanal, Ph.D.**

Kalpana M. Kanal came to the United States to pursue an M.S. degree in Physics in 1989 and received her M.S. degree from UT Arlington, Arlington, TX in 1991. She received her Ph.D. in Radiological Sciences from the UT Health Science Center, San Antonio, TX in 1996. After completing the Medical Physics Residency Program at Mayo Clinic, she joined the Department of Radiology at University of Minnesota, in 1998. In 1999, Dr. Kanal was certified by the American Board of Radiology in Diagnostic Radiological Physics. She has been working in the Department of Radiology at the University of Washington since 2000 and is currently Associate Professor and Director of the Diagnostic Physics Section. Dr. Kanal is also chair of the Radiation Safety Committee at University of Washington. She served as Vice-Chair of the AAPM Imaging Physics Curricula Subcommittee before becoming Chair in 2011. She has been course director for CME courses at the AAPM annual meeting and often serves as an Associate Editor of the journal, *Medical Physics*. Dr. Kanal is currently the chair of the ABR physics core exam and is active professionally in the ABR and ACR. She has published over 30 papers in peer-reviewed journals and has made several scientific presentations throughout her career. She has also been recognized as a fellow by the SCBTMR.



### **Jeffrey P. Limmer, M.Sc.**

Jeffrey Limmer received his M.Ed in Physics Education from Indiana University in 1990. After 10 successful years teaching high school physics he attended the University of Wisconsin- Madison where he received his M.S. in Medical Physics in 1997 and certification in Therapeutic Radiological Physics by the ABR in 2001. He remained in Wisconsin and became regional Chief for affiliated UW centers in central Wisconsin until 2011. He is currently Director of Medical Physics for The US Oncology Network. He has served in many capacities within the AAPM including Board of Directors, Chapter President, Chairs of Media Relations, Joint Medical Physics Licensure, and On-Line Continuing Education, in addition to being a member on many Committees, Subcommittees, and a few Task Groups. He has been active in the ACMP, ASTRO and the ACR; currently on the ASTRO Education Committee, ACR Medical Physics Standards/Technical Guidelines Committee and serves as an ACR site accreditation surveyor.



### **Chihray Liu, Ph.D.**

Chihray Liu received his Ph.D. degree from the University of Nebraska in 1988. After completing the Clinical Medical Physics Residency Program at the Thomas Jefferson University, he joined the Department of Radiation Oncology at the University of Tennessee, in 1992, where he is now Professor and Chief of the Section of Medical Physics at the University of Florida. Dr. Liu has served in many capacities in the American Association of Physicists in Medicine. He is currently chair of the Task Group 210 Committee, and member of several work groups and task group committees. He is board certified by the American Board of Radiology in Therapeutic Physics and he has also been active professionally in the American College of Radiology. Dr. Liu has published over 55 papers in peer-reviewed journals.



### **Osama R. Mawlawi, Ph.D.**

Osama Mawlawi is a tenured professor of imaging Physics and is the lead PET/CT physicist at MD Anderson Cancer Center (MDACC). He started his career as a Medical Physicist at Memorial Sloan Kettering Cancer Center in New York where he worked as a research assistant from 1990-1998. He later joined Columbia University School of Physicians and Surgeons in 1998 as an assistant professor following the completion of his doctoral degree from Columbia University. His ongoing research is aimed at developing novel techniques for PET image acquisition, correction and reformation, as well as modeling the distribution of novel radiotracers. He has co-authored over 85 peer reviewed articles and book chapters and is the recipient of several grants from industry and professional societies. He is an active member of several professional societies such as the SNMMI, AAPM, IEEE, and ACR. He is also the current president of the ABSNM, the chair of the AAPM TG126 on PET/CT acceptance testing and QA, as well as a member of several other task groups. Dr. Mawlawi is also a lecturer at RICE University and a faculty member at the University of Texas graduate school of biomedical sciences. He also serves as a coordinator of the imaging physics residency program at MDACC. He is board certified in Nuclear Medicine by the ABSNM as well as in Diagnostic Radiologic Physics by the ABR.



### **Todd R. McNutt, Ph.D.**

Dr. McNutt completed his Ph.D. in Medical Physics at the University of Wisconsin in 1997 with emphasis on dose reconstruction for Tomotherapy under the mentorship of Professors Bhudatt Paliwal and T. Rock Mackie. He continued to advance radiation treatment planning to intensity modulated radiotherapy, improved radiation dosimetry and advanced image segmentation techniques as Director of Research at ADAC/Philips for the Pinnacle3 Treatment Planning System. He joined Johns Hopkins in 2005 and is currently an Associate Professor in the department of radiation oncology and molecular radiation sciences. Dr. McNutt leads the Oncospace program which seeks to utilize a multi-institutional data infrastructure of prior patients to improve the quality and personalize treatment for new patients. Dr. McNutt was board certified by the ABR in 2008. He currently sits on the Editorial Board of *Medical Physics*. He chairs the National Radiation Oncology Registry-Infrastructure Committee for the Radiation Oncology Institute. He has been an active member of IHE-RO, AAPM Workgroups, and TG132 on image fusion. He has published over 50 papers in peer-reviewed journals and holds over 10 patents related to Medical Physics.



### **Christopher F. Njeh, Ph.D.**

Christopher Njeh was born in Cameroon. He attended Birmingham University, Aberdeen University and Sheffield Hallam University, UK where he obtained his Ph.D. degree in Medical Physics. After graduation, he worked briefly at Queen Elizabeth Hospital, Birmingham, UK before pursuing a Visiting Postdoctoral Fellow at the University of California, San Francisco and subsequently appointed as Assistant Professor of Radiology. He later completed a medical physics residency at Johns Hopkins University, Baltimore. He is currently Medical Physicist at Marshfield Clinic, Wausau, WI. Dr Njeh is certified in Therapeutic Radiological Physics by the ABR. He is co-author of over 60 papers and 10 book chapters, and two books. He is an ad-hoc article reviewer of numerous journals and associate editor of *British Journal of Radiology*. He is the co-organizer of the Medical Physics Section of the National Society of Black and Hispanic Physicists conference. He is also a member of the minority recruitment committee of the AAPM and education committee of ASTRO.



### **Douglas E. Pfeiffer, M.S.**

Douglas Pfeiffer received his M.S. in Engineering - Applied Science from the University of California at Davis in 1989 and was certified by the American Board of Radiology in Diagnostic Radiological Physics in 1993. He is primarily employed by Boulder Community Hospital as Diagnostic Medical Physicist. He has held positions as a consultant, in industry, and in an academic medical center. He is active in the American Association of Physicists in Medicine, now serving as Chair of the Medical Physics Education of Allied Health Personnel Committee. Mr. Pfeiffer has Chaired and served on several professional and scientific Task Groups for the AAPM. He is active in the accreditation programs of the American College of Radiology, having served as Co-Chair of the Physics Subcommittee of the CTAP and as a phantom reviewer for the CT, mamm, SBB, and MRI accreditation programs. He serves on the ACR Subcommittee for Quality Assurance in Mammography and the Guidelines and Standards Committee.



### **Karl L. Prado, Ph.D.**

Karl L. Prado received his Ph.D. in Radiological Sciences in 1983 at the University of Oklahoma Health Sciences Center, the first accredited medical physics graduate program. He has practiced medical physics for over 25 years. He achieved certification by the American Board of Radiology in 1987, and was awarded the degree of Fellow in Physics by the American College of Radiology in 2009. Over the last 15 years, Dr. Prado has taught and mentored graduate medical physics students, medical physics residents, and radiation oncology residents in both formal and more personal settings. In his clinical and professional practice, Dr. Prado has placed significant emphasis on Quality Assurance and Continued Quality Improvement. He served as Chair of the Standards Committee of the American College of Medical Physics (ACMP) where the current Scope of Practice of Medical Physics was drafted and approved. Dr. Prado is the author of 30 publications in refereed journals and 5 book chapters. He currently practices at the University Of Maryland School of Medicine where he holds the rank of Professor in the Department of Radiation Oncology.



### **Frank Van den Heuvel, Ph.D.**

Prof Van den Heuvel obtained his Ph.D. Summa Cum Laude from the Free University in Brussels in 1994. He joined Wayne State University in Detroit Michigan in 1995 and was promoted to Associate Professor in 2002. He now is a Professor in Medical Physics at the University of Leuven since 2005, where he also leads the radiation therapy physics department. He is author of almost 40 highly original papers, more than a 100 abstracts and 5 book contribution, most of which in the capacity as first, joint first, and senior author. Furthermore, he is a board certified clinical physicist in the US as well as Belgium, and has been instrumental in the education of medical physicists in both countries in the last 15 years. In this capacity, he also has been an outspoken proponent of the profession in formal publications and informal discussions in the physics listserver, and lead editor of the ESTRO Physics Corner.



### **D. Allan Wilkinson, Ph.D.**

Allan Wilkinson did his undergraduate degree at the University of Saskatchewan in Canada and his Ph.D. in biophysics at Yale University. He then joined the research faculty in the physics department at Carnegie-Mellon University working on biomembrane structure. His entry into medical physics was through hyperthermia work at Allegheny General Hospital in Pittsburgh. In 1996 he joined the Radiation Oncology department of the Cleveland Clinic where he is vice-chief of physics. Dr. Wilkinson was instrumental in the establishment of a medical physics graduate program with Cleveland State University and remains as co-director of the program. He is also the director of the physics residency program in Radiation Oncology at the Cleveland Clinic. His AAPM work has included the Board of Directors and several committee appointments at the national level as well as serving on the executive board of the Penn-Ohio Chapter for many years. He is also the curator of the AAPM/IOMP library program.



## ~ John S. Laughlin Young Scientist Award ~

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### **Habib Zaidi, Ph.D.**

Habib Zaidi received a Ph.D. and habilitation (PD) from Geneva University. He is Chief Physicist and head of the PET Instrumentation & Neuroimaging Laboratory at Geneva University Hospital and faculty member at the medical school of Geneva University. He is also a Professor of Medical Physics at the University Medical Center of Groningen (The Netherlands). Dr. Zaidi is actively involved in developing imaging solutions for cutting-edge interdisciplinary biomedical research and clinical diagnosis in addition to lecturing undergraduate and postgraduate courses on medical physics and medical imaging. He was guest editor for 6 special issues of peer-reviewed journals and serves Deputy Editor for the British Journal of Radiology, Associate editor for Medical Physics and is on the editorial board of many other leading journals. He is a senior member of the IEEE and former Vice Chair of the

professional relations committee of the IOMP. His academic accomplishments have been well recognized by his peers and by the medical imaging community at large since he is a recipient of many awards and distinctions among which the 2003 Young Investigator Medical Imaging Science Award given by the IEEE, the 2004 Mark Tetalman Memorial Award given by the SNM, the 2007 Young Scientist Prize in Biological Physics given by IUPAP, the prestigious (100'000\$) 2010 Kuwait Prize of Applied sciences given by the KFAS for "outstanding accomplishments in Biomedical technology", the 2013 John S. Laughlin Young Scientist Award given by the AAPM and the 2013 Vikram Sarabhai Oration Award given by the Society of Nuclear Medicine (India). Dr. Zaidi has been an invited speaker of many keynote lectures at an International level, has authored over 350 publications, including ~160 peer-reviewed journal articles, conference proceedings and book chapters and is the editor of three textbooks.

## ~ Marvin M. D. Williams Professional Achievement Award ~

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### **Marilyn Stovall, Ph.D.**

Marilyn Stovall received her Ph.D. from The University of Texas Graduate School of Biomedical Sciences in 1996. She is currently a Professor in the Department of Radiation Physics at The University of Texas MD Anderson Cancer Center, Houston, where she has worked for the last 61 years.

Her career has spanned a wide range of clinical and research duties. In the first half of her career she was mentored by Robert J. Shalek, with whom she co-authored many papers on brachytherapy. Together they developed one of the earliest computer routines for brachytherapy calculations. Dr. Stovall also spent two years at the International Atomic Energy Agency, Vienna, assisting treatment centers in developing countries.

For the last 30 years, her work has focused on research of long-term effects of radiation therapy. Her group participates in large national and international studies of radiation as a risk factor for tumor induction, organ dysfunction, genetic damage, and other late effects. These studies include patients of all ages; to date, individual organ doses for more than 120,000 persons from 350 institutions in the US, Canada and Europe have been estimated; these patients were irradiated as long ago as 1916, although most were irradiated from the 1930s to 2000. She has received a total of \$3,000,000 in research funding and has published 268 peer-reviewed articles.

In addition to research, she is director of Radiation Dosimetry Services, which routinely serves more than 1200 institutions world-wide, providing quality assurance for therapy machines by means of mailed dosimeters.

## ~ Edith H. Quimby Lifetime Achievement Award ~

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### **Caridad Borrás, D.Sc.**

Caridad (Cari) Borrás obtained a Doctor of Science degree in Physics from the University of Barcelona, upon defense of a thesis research project, carried out at Thomas Jefferson University (TJU) in Philadelphia as a Fulbright scholar. She is certified by the ABR in radiological physics and by the ABMP in medical health physics.

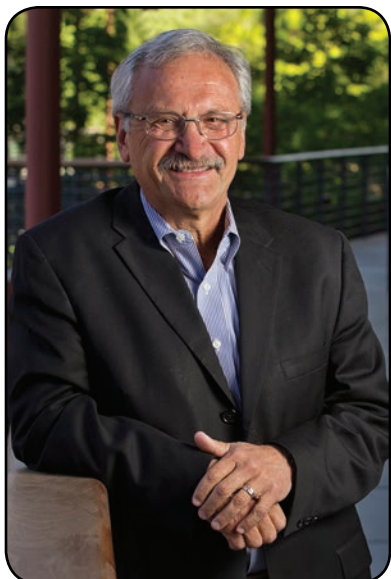
Dr. Borrás worked as a radiological physicist at the Santa Creu i Sant Pau Hospital in Barcelona, at Thomas Jefferson University in Philadelphia and at the West Coast Cancer Foundation in San Francisco. For 15 years she directed the radiological health program of the Pan American Health Organization/World Health Organization (PAHO/WHO) in Washington DC, and was invited by the Federal University of Pernambuco in Recife, Brazil, as a Visiting Professor. She currently has a faculty appointment at

The George Washington University School of Medicine and Health Sciences in Washington DC and works as a consultant for PAHO, WHO and the IAEA.

She organized and/or lectured in over 200 international courses/workshops/congresses/seminars, and has written over 100 publications and reports on radiology services, dosimetry, radiation protection, radiation accidents and radiotherapy overexposures. She chaired the IOMP Science Committee for nine years and is now chair of the IUPESM Health Technology Task Group and of the AAPM Work Group on Implementation of Cooperative Agreements between the AAPM and other National and International Medical Physics Organizations.

She is an AAPM and ACR Fellow and has received the Spanish Medical Physics Society's Gold Medal and the IUPESM Award of Merit.





### **Norbert J. Pelc, Sc.D.**

Norbert Pelc's initial involvement in Medical Physics was as an undergraduate at the University of Wisconsin, where he received his bachelor's degree in 1974. He obtained masters and doctoral degrees in Radiological Physics at Harvard in 1976 and 1979. Dr. Pelc worked in industry from 1978 until 1990 where he was instrumental in the development of CT, MRI, and digital radiography. He joined Stanford in 1990, later becoming a Founding Faculty member in the Department of Bioengineering in 2004. He is a Professor in Bioengineering and Radiology, and by courtesy, in Electrical Engineering. He is the current Chair of the Bioengineering Department.

Dr. Pelc's research interests are in diagnostic imaging, especially MRI and CT. His current research focuses on advanced CT system design and reconstruction methods, and in the development of new applications.

In the AAPM, he served on several Task Groups, a Strategic Planning Committee, the Imaging Physics Subcommittee and of Science Council from 2006 to 2011.

Dr. Pelc has authored more than 180 papers, over 300 presentations, and 87 US patents. He is known for his contributions to CT and MRI, and in 2012 was elected to the National Academy of Engineering in recognition of those contributions. He is a Fellow of the AAPM, of the International Society of Magnetic Resonance in Medicine (ISMRM), the American Institute of Medical and Biological Engineering (AIMBE), and the Council on Cardiovascular Radiology of the American Heart Association. He was a member of the first Advisory Council of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) at NIH.



### **George Starkschall, Ph.D.**

After receiving a BS in Chemistry from MIT and a Ph.D. from Chemical Physics from Harvard, and completing a postdoc at the James Franck Institute at The University of Chicago, Dr. Starkschall moved into Medical Physics in 1974, receiving his ABR certification in Therapeutic Radiological Physics in 1977. Following positions at the Hines VA Hospital, St Francis Hospital of Evanston, The Chicago Medical School, and The University of Kansas, he began his association with The University of Texas MD Anderson Cancer Center in 1985. He has published over 100 peer-reviewed manuscripts on such topics as three-dimensional radiation treatment planning, radiation oncology picture archival and communication systems, treatment plan optimization, and respiratory-correlated radiation therapy. He has been active in the education of radiation oncology residents and medical physics graduate students, having served on the Supervisory Committees of over

30 graduate students, mentored 9 postdoctoral fellows, and taught several courses in the graduate medical physics program at MD Anderson. Since retiring from his full-time faculty position in 2010, he has continued to maintain a part-time faculty position, teaching the introductory radiation interactions course to first-year graduate students, and being a strong advocate for the Peer Instruction pedagogical technique. He has served the medical physics community in many capacities, most recently as Editor-in-Chief of the *Journal of Applied Clinical Medical Physics* from 2008 to 2012, and as Chair of the AAPM Education Council. He has also been the Executive Secretary of CAMPEP since 2011.

## William D. Coolidge Award Recipients

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

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## ~ AAPM William D. Coolidge Recipient for 2013 ~

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### **Benedick Fraass, Ph.D.**

Born in Washington D.C. in 1952, Benedick Fraass grew up in Cleveland Heights, Ohio and Corona del Mar, California. He received his B.S. in Physics from Stanford University in 1974, and then moved to the University of Illinois Urbana-Champaign, where he received his Ph.D. (1980) in Physics working in experimental low temperature solid state physics involving x-ray diffraction on solid helium crystals. He began his medical physics career in 1980 at the National Cancer Institute (NCI) at the NIH in Bethesda MD, where he was mentored by Jan van de Geijn, learned clinical radiation oncology physics, and performed research in CT-based treatment planning, intraoperative radiation therapy, normal tissue tolerance, and other topics.

Dr. Fraass joined Allen Lichter M.D. in founding the Department of Radiation Oncology at the University of Michigan in 1984 as the first Director of the Radiation Oncology Physics Division, where he led the physics group from 1984 until 2011. At the UM he rose from Assistant Professor in 1984 to Professor in 1995, and was named the inaugural Allen S. Lichter Professor of Radiation Oncology in 2009. In 2011, he moved to Cedars-Sinai Medical Center in Los Angeles, where he is Vice Chair for Research, Professor and Director of Medical Physics in the Department of Radiation Oncology.

Dr. Fraass was instrumental in the treatment planning revolution in the 1980s and early 1990s, leading the development and first routine clinical use of 3-D treatment planning and 3-D conformal therapy. He has been principal investigator of many NCI grants and contracts. He has authored more than 205 publications on a range of issues from advanced treatment planning to quality assurance and safety to clinical radiotherapy dose escalation studies. He has been advisor to 3 Ph.D. students and has mentored the research of more than 25 graduate and undergraduate students, post-docs, and clinical physics and radiation oncology residents.

Dr. Fraass is a fellow of the AAPM, American Society of Radiation Oncology (ASTRO), and American College of Radiology (ACR) and he was named Professor Emeritus of the University of Michigan in 2011. He is currently Co-Chair of the AAPM Research Committee and member of Science Council, Therapy Physics Committee, Technology Assessment Committee, and Task Groups 100 and 244. He has served on the Board of Directors, chaired TG 53 on Treatment Planning QA, been scientific program coordinator, and a member of numerous task groups and committees. He is currently Co-Chair of the ASTRO IHE-RO Task Force, the National Radiation Oncology Registry, and the Radiation Oncology Safety Stakeholders Initiative. He is a member of the Science Council of the International Organization of Medical Physics, has served on IAEA task group efforts, was a member of the recent inter-society Blue Book Steering Committee, and led the recent ASTRO Safety White Paper efforts on IMRT, Peer Review, HDR, IGRT, and SBRT.

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**Congratulations to all of the Award Recipients!**

