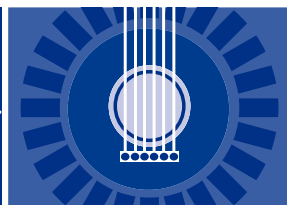
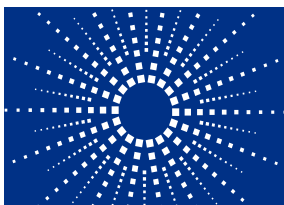
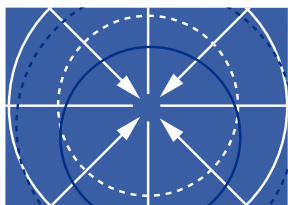




AMERICAN ASSOCIATION *of* PHYSICISTS IN MEDICINE

*Awards Ceremony*

**AAPM 2018** JUL 29—AUG 2



**60<sup>TH</sup> ANNUAL MEETING & EXHIBITION | NASHVILLE, TN**

July 30, 2018 • 6:30 pm

Broadway Ballroom • Level 2 • Omni Hotel

# BEYOND THE FUTURE!



**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 advancing medicine through excellence in the science, education and professional practice of medical physics.

## 2018 PROGRAM

Bruce R. Thomadsen, PhD  
*AAPM President*

Honoring Deceased AAPM Members

AAPM Fellowships and Grants

SPARE: Spare-view Reconstruction Challenge for  
4D Cone-beam CT

Jack Fowler Junior Investigator Award

Jack Krohmer 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

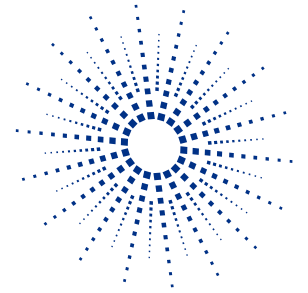
Marvin M.D. Williams Professional Achievement Award

Edith H. Quimby Lifetime Achievement Award

William D. Coolidge Gold Medal

Closing Remarks

*Reception immediately following*





## AAPM FELLOWSHIPS & GRANTS

### ■ **AAPM 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:

**Kaelyn Seeley – University of Wisconsin-Madison**

### ■ **ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant**

The Physics Seed Grant is a joint effort to advance the field of radiation oncology in novel ways through the support of talented early-career scientists performing physics and radiation oncology-related research. The aim of the Physics Seed grant is to support the next generation of researchers. The 2018 grant recipient is:

**Khadija Sheikh, PhD – Johns Hopkins University**

### ■ **2018 DREAM — Diversity Recruitment through Education and Mentoring Program**

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 for the DREAM Program. **Additional support was provided by the AAPM Northwest Chapter.** The DREAM Fellows for 2018 are:

**Marco Carmona**  
**Vijay Chockalingam**  
**Tracy Edwards**

**Daniel Keane**  
**Claudia Miller**

### ■ **AAPM Imaging Physics Residency Program Grant**

On November 29, 2017, the AAPM Board of Directors approved \$140,000 in funding for two new imaging physics residency positions, in diagnostic, diagnostic with a nuclear medicine option, or nuclear medicine. With this funding, the selected institution(s) will receive \$35,000 per year for two years as matching support for one resident. The 2018 winner is:

**Boston Children's Hospital -**  
**Director: Frederic H. Fahey, DSc**

**Medical & Radiation Physics, Inc. -**  
**Director: David Lloyd Goff, PhD**

### ■ **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 2018 are:

**Julian Bertini**  
**Alexandra Gruszkiewicz**  
**Allison Haertter**  
**Brianna Lepore**  
**Zachary Metzler**

**Thomas Rhines**  
**Jacqueline Van Slycke**  
**Benjamin Wollant**  
**Teresa Yuhas**  
**Louise Naumann**

### ■ **Summer School Tuition Scholarships**

These scholarships are offered to applicants who are early in their careers in medical physics. The 2018 scholarship recipients are:

**Daniel Christ, DMP**  
**Donna Murrell, PhD**  
**Albert Pinder-Arabpour, PhD**

**Nrusingh Biswal, PhD**  
**Samuel French, MS**  
**Sarah Geneser, PhD**

### ■ **The AAPM Expanding Horizons Travel Grant**

This travel grant program is designed to provide an opportunity to broaden the scope of scientific meetings attended to introduce students and trainees to new topics which may be of relevance to medical physics research and which may subsequently be incorporated into future research to progress the field in new directions. **The deadline for 2018 Round 2 is September 7, 2018.** The 2017 Travel Grant recipients are:

**Fahed Alsanea, MS**  
**Carlos Cardenas, MS**  
**William Donahue, BS**

**Evan Harvey, MS**  
**Reza Taleei, PhD**

The 2018 Round 1 Travel Grant recipients are:

**Elham Abouei, MS**  
**Elizabeth Boehnke, MS**  
**Justin Brown, MS**

**Samuel Einstein, PhD**  
**Eric Morris, BS**



■ **The AAPM Science Council Associates Mentorship Program**

This program has been established to recognize and cultivate outstanding researchers at an early stage in their careers, with the goal of promoting a long-term commitment to science within AAPM. The program uses the process of "shadowing" to integrate the Associates into the scientific activities of the organization. The 2018 Associates are:

**Joshua Niedzielski**  
**Sarah Quirk**  
**Matthew Scarpelli**

**Emil Schueler**  
**Chunhao Wang**  
**You Zhang**

■ **AAPM Best Awards**

A new Travel Fellowship for Student, Resident, or Junior Members of AAPM to attend the AAPM Annual Meeting, to be exposed to, and have access to the scientific and technical information and presentations on current and emerging topics in medical physics and related areas. The 2018 Travel Fellowship recipients are:

**Yu Gao**  
**Angelia Landers**  
**Christopher J. MacLellan**

**James Renaud**  
**Irwin I. Tendler**

■ **Research Seed Funding Grant**

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 2018 are:

**Arash Darafsheh, PhD – Washington University School of Medicine**  
**Xianjin Dai, PhD – Stanford University**  
**David A Hormuth II, PhD – The University of Texas at Austin**

## SPARE: SPARE-VIEW RECONSTRUCTION CHALLENGE FOR 4D CONE-BEAM CT

The SPARE challenge, conducted by the ACRF Image X Institute, aims to systematically investigate the efficacy of various image reconstruction algorithms for 4D CBCT reconstruction from a one-minute scan. Three top-performing teams will present their methods in a session at the 2018 AAPM Annual Meeting.

**Cyril Mory, PhD**  
**Simon Rit, PhD**

**Matthew Riblett, BS & Geoffrey Hugo, PhD**

## JACK FOWLER JUNIOR INVESTIGATOR AWARD

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

**Grace Jianan Gang, PhD**

## JACK KROHMER JUNIOR INVESTIGATOR AWARD *(formerly known as Science Council Junior Investigator Award)*

Established in honor of Dr. Jack Krohmer, PhD, a pioneer in the medical physics community. The award is based on abstracts submitted to the Scientific Program of the AAPM Annual Meeting, judged according to criteria of significance, innovation, and the potential for major scientific impact in an area of cutting edge interest in medical physics. The 2018 award is presented to:

**Jian Wu, PhD**

## JOHN R. CAMERON YOUNG INVESTIGATOR AWARDS

The 10 Young Investigator submissions scored highest by abstract reviews were selected to be presented in a special symposium, held early today, in honor of University of Wisconsin Professor Emeritus John R. Cameron, PhD. The top three scoring abstracts will be announced during this ceremony.

## 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. The 2018 winner was determined earlier today and will be announced during this ceremony.

## JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS BEST PAPER AWARDS

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

The Award of Excellence for Outstanding Radiation Oncology Physics Article published in *JACMP* in 2017 is presented to:

**Ans C.C. Swinnen, Michel C. Ollers, Erik Roijen, Sebastiaan M. Nijsten, and Frank Verhaegen** for the paper entitled "Influence of the jaw tracking technique on the dose calculation accuracy of small field VMAT plans," *Journal of Applied Clinical Medical Physics*, 18 (1), 186-195 (2017).

### ■ Award of Excellence for the Best Medical Imaging Physics Article

The Award of Excellence for the Best Medical Imaging Physics Article published in *JACMP* in 2017 is presented to:

**Pascal Monnin, Nicolas Sfameni, Achille Gianoli, and Sandrine Ding** for their paper entitled "Optimal slice thickness for object detection with longitudinal partial volume effects in computed tomography," *Journal of Applied Clinical Medical Physics*, 18 (1), 251-259 (2017).

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

The Award of Excellence for the Best Radiation Measurements Article published in *JACMP* in 2017 is presented to:

**Davide Cusumano, Maria Luisa Fumagalli, Francesco Ghielmetti, Linda Rossi, Giuliano Grossi, Raffaella Lanzarotti, Laura Fariselli, and Elena De Martin** for their paper entitled "Sum signal dosimetry: A new approach for high dose quality assurance with Gafchromic EBT3," *Journal of Applied Clinical Medical Physics*, 18 (2), 181-190 (2017).

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

The Editor In Chief Award of Excellence for an Outstanding General Medical Physics Article published in *JACMP* in 2017 is presented to:

**Daniel F. Craft and Rebecca M. Howell** for their paper entitled "Preparation and fabrication of a full-scale, sagittal-sliced, 3D-printed, patient-specific radiotherapy phantom," *Journal of Applied Clinical Medical Physics*, 18 (5), 285-292 (2017).

## MOSES & SYLVIA GREENFIELD AWARD

The Moses & Sylvia Greenfield Award for an outstanding paper on imaging published in *Medical Physics* in 2017 is presented to:

**Alexander M. Grant, Brian J. Lee, Chen-Ming Chang, and Craig S. Levin** for their paper entitled "Simultaneous PET/MR imaging with a radio frequency-penetrable PET insert," *Medical Physics* 44 (1), 112-120 (2017).

## FARRINGTON DANIELS AWARD

The Farrington Daniels Award for an outstanding paper on radiation therapy dosimetry, planning or delivery published in *Medical Physics* in 2017 is presented to:

**Huan-Hsin Tseng, Yi Luo, Sunan Cui, Jen-Tzung Chien, Randall K. Ten Haken, and Issam El Naqa** for their paper entitled "Deep Reinforcement Learning for Automated Radiation Adaptation in Lung Cancer," *Medical Physics* 44 (12), 6690-6705 (2017).

## 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:

**Richard L. Ehman, MD**

**Lawrence B. Marks, 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.

**Nzhde Agazaryan, PhD**

**Bulent Aydogan, PhD**

**William S. Bice, Jr. PhD**

**Charles D. Bloch, PhD**

**Walter R. Bosch, DSc**

**Maria-Ester Brandan, PhD**

**Jing Cai, PhD**

**David J. Carlson, PhD**

**Guang-Hong Chen, PhD**

**Eileen Cirino, MS**

**Jessica B. Clements, MS**

**Laurence E. Court, PhD**

**Shiva K. Das, PhD**

**David P. Gierga, PhD**

**Stephen J. Glick, PhD**

**Carri K. Glide-Hurst, PhD**

**Bennett S. Greenspan, MD**  
**Nilendu Gupta, PhD**  
**Stephen F. Kry, PhD**  
**Joerg Lehmann, PhD**  
**Harish K. Malhotra, PhD**  
**Kiaran P. McGee, PhD**  
**Tinsu Pan, PhD**  
**Daniel C. Pavord, MS**  
**Robert A. Pooley, PhD**

**Mohammad Reza Salehpour, PhD**  
**Lakshmi Santanam, PhD**  
**Jennifer B. Smilowitz, PhD**  
**Cynthia L. Thomason, PhD**  
**Brian Wang, PhD**  
**Twyla R. Willoughby, PhD**  
**Yulong Yan, PhD**  
**Lifeng Yu, PhD**

## RECOGNITION OF 50+ YEARS OF AAPM MEMBERSHIP

### JOHN S. LAUGHLIN YOUNG SCIENTIST AWARD

This award recognizes outstanding scientific achievement in medical physics by 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 2018 recipient is:

**Magdalena Bazalova-Carter, 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 2018 recipients are:

**Muthana S. A. L. Al-Ghazi, PhD and Louis K. Wagner, PhD**

### EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD

This award recognizes AAPM members whose careers have been notable based on their outstanding achievements. The 2018 recipient are:

**Jerry D. Allison, PhD and Frank J. Bova, PhD**

### WILLIAM D. COOLIDGE GOLD MEDAL

This award recognizes an AAPM member for an eminent career in medical physics. It is the highest award given by AAPM. The 2018 recipient is:

**Radhe Mohan, PhD**

## HONORARY MEMBERSHIP



### **RICHARD L. EHMAN, MD**

Richard L. Ehman, MD, is Professor of Radiology and Blanche & Richard Erlanger Professor of Medical Research at the Mayo Clinic. He is an Emeritus Member of the Mayo Clinic Board of Trustees.

He trained in medicine at the University of Saskatchewan, Canada. After residency at the University of Calgary and a fellowship at UCSF, he joined the Mayo Clinic Department of Radiology in 1985.

His research program is focused on developing new imaging technologies. He holds more than 40 patents and many of these inventions are widely used in medical care.

He has served as Chair of the Radiology and Nuclear Medicine Study Section of the National Institutes of Health (NIH), as a member of the Advisory Council of the National Institute of Biomedical Imaging and Bioengineering of the NIH, and the Council of Councils of the NIH. Dr. Ehman was awarded the Gold Medal of the International Society for Magnetic Resonance in Medicine in 1995 for his research contributions and the Outstanding Researcher Award of the RSNA in 2006. He was elected to the National Academy of Medicine in 2010 and was named Mayo Clinic Distinguished Investigator in 2014. He was awarded the Gold Medal of the Asian Oceanian Society of Radiology in 2016.

Dr. Ehman has served as president of many professional organizations, including the International Society for Magnetic Resonance in Medicine, the Academy of Radiology Research, and the Society for Body Computed Tomography and Magnetic Resonance. He was President of the Radiological Society of North America in 2017.



**LAWRENCE B. MARKS, MD**

Dr. Lawrence Marks was born and raised in Brooklyn. His mother was a teacher, and his father a principal, in the NYC schools. He has always had an affection for math and physics. He received a BS in Chemical Engineering (Cooper Union 1981), an MD (University of Rochester, 1985), had residency training at MGH, was faculty at Duke for 19 years, and joined the University of North Carolina in 2008 as Department Chair.

Clinically, Dr. Marks focuses on breast and lung cancer. His group's research (funded by the NIH, Lance Armstrong Foundation, and DOD) helped to better understand RT-induced normal tissue injury. He was the physician leader of QUANTEC—an AAPM-sponsored effort to summarize dose/volume/outcome data for various organs.

His group has also studied the frequency and causes of "errors" in the clinic and implemented systems aimed to improve quality/efficiency/reliability (with CDC and AHRQ funding), and they have authored the book *Engineering Patient Safety in Radiation Oncology*. He has served on the Board of Directors of ASTRO and, with AAPM, helped to oversee efforts nationally to improve quality and safety (e.g., through ROILS, and by defining best practices).

Through all of this work, he has tried to apply objective and quantitative methods, and he has been blessed to have many wonderful physicists as teachers, mentors, collaborators, friends, mentees, and colleagues. He is thankful for his supportive wife, Caryn, and their three sons Noah, Sam, and Ben. He is most honored to be recognized by AAPM.

# BEYOND THE FUTURE!

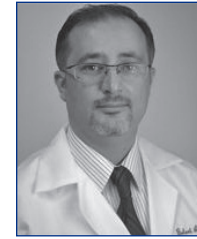
## Fellows



**NZHDE AGAZARYAN, PhD**

Dr. Agazaryan is a Professor of Radiation Oncology, Professor of Physics and Biology in

Medicine, and the Chief of Clinical Medical Physics and Dosimetry at the UCLA Department of Radiation Oncology. He additionally serves as a Quality and Safety Officer for the UCLA Health System and the UCLA Department of Radiation Oncology. Dr. Agazaryan is engaged in mentoring students, residents, and junior faculty. His research and clinical interests include stereotactic radiosurgery, stereotactic body radiotherapy, small field dosimetry, and image-guided radiotherapy, with an emphasis on translational research and clinical trials. Dr. Agazaryan has made numerous international and national presentations, published over 40 peer-reviewed papers, over 120 abstracts, a book editorial, and several book chapters. He is an investigator of five clinical trials involving the use of stereotactic radiosurgery and stereotactic body radiotherapy.



**BULENT AYDOGAN, PhD**

Dr. Aydogan is an Associate Professor and the Director of Medical Physics at the University

of Chicago. His research interests include image-guided radiotherapy, imaging for treatment guidance and response, computational simulation of radiation damage in human body, and development of nanotechnology platforms for theranostic applications. Dr. Aydogan has developed linac based IMTMI and clinically implemented it through four Phase I clinical trials. Based on the encouraging results, he and his colleagues just started a Phase II study to prove its clinical efficacy. Dr. Aydogan served as the Chair and Co-chair of the AAPM Meeting Education Program between 2010-2012 and currently is serving as the Inaugural Chair for the Chiefs of Academic Medical Physics Programs. He also enjoys mentoring graduate students and junior faculty. Dr. Aydogan has contributed to the development and advancement of curricula for medical physics graduate and residency programs. He has organized professional meetings including an AAPM-supported international workshop, a lecture series on public health, and other academic endeavors.





**WILLIAM S. BICE, JR.,  
PhD**

Dr. Bice's first position after graduation from the University of Florida was in San Antonio where,

for 25 years, he worked as a hospital-based physicist, as a consulting physicist, and as an academic physicist. Then came a two-year chief physicist position at The London Clinic. Currently, he is Director and Chief of Physics for John Muir Health Radiation Oncology. Dr. Bice taught Radiotherapy Physics at UTHSCSA, mentoring eight graduate students. He is founder of the Foundation for Medical Physics Research. His, and his students, research involved sector analysis, iterative seed sorting, and image co-registration for brachytherapy. Other areas included fluorescent emission angiography, compensator-based IMRT, and DVH analysis techniques. Dr. Bice is Physics PI on two RTOG protocols and co-investigator on a national multi-institutional trial. He has served on multiple AAPM committees and the AAPM Board of Directors. He was Chair of the ABS Physics Committee and Treasurer of the ABS.



**CHARLES D. BLOCH,  
PhD**

Charles Bloch received his PhD in physics from Michigan State University in 1987

before joining Indiana University. There, Dr. Bloch developed the proton therapy system which treated their first patient in 1993 and he continued to support treatments there through the year 2000. Dr. Bloch has held faculty positions at the University of Texas M. D. Anderson Cancer Center, Baylor College of Medicine, and Washington University in St. Louis. He has been active in graduate education and continued research and development in proton therapy. Currently, Dr. Bloch is an Associate Professor at the University of Washington supporting the Seattle proton therapy center. From 2012 through 2017 Dr. Bloch was Chair of the AAPM Online Learning Services Subcommittee as well as other positions under the Education Council, on which he continues to serve. He received his board certification from the ABMP in 2004 and the ABR in 2015. He has more than 50 peer-reviewed publications and numerous invited presentations at national and international meetings.



**WALTER R. BOSCH,  
DSc**

Walter Bosch received his DSc degree in 1990 from Washington University in St. Louis. In 1992,

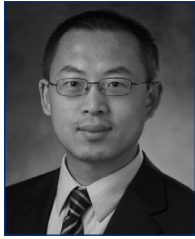
he joined the Department of Radiation Oncology at Washington University, where he worked with Dr. James Purdy in pioneering the development of software tools and data standards for capturing radiotherapy treatment planning information in clinical trials. As Director of the Advanced Technology QA Center at Washington University, he has managed the collection, quality assurance, and analysis of cooperative-group clinical trial data from over 1000 institutions worldwide. He currently serves as Principal Investigator of the PCORI-sponsored ATC RadComp Radiorepository. Dr. Bosch has made significant contributions to data standards and interoperable exchange of radiotherapy information. He was a founding member of DICOM Working Group-7 (Radiotherapy Objects) and is currently the editor of two second-generation RT DICOM Supplements. An active participant in the IHE-RO Technical Committee since 2005, he currently serves as IHE-RO Connectathon Test Manager.



**MARIA-ESTER  
BRANDAN, PhD**

María-Ester Brandan is Professor at the Physics Institute of the National Autonomous

University of Mexico, UNAM. Her research interests have included experimental nuclear physics, radiation dosimetry and medical physics. She investigates the ionization-density dependence of the thermoluminescent response and its use in clinical dosimetry, and image subtraction applied to clinical studies. Dr. Brandan has participated in more than 130 scientific publications and directed more than 40 students from undergraduate to doctorate. She was organizer of the UNAM MSc (Medical Physics) program. Dr. Brandan is a member of the Mexican Academy of Sciences and the Academy of Sciences for the Developing World, Fellow of the American Physical Society, and was Chair of the International Solid-State Dosimetry Organization. Dr. Brandan received the Mexican Physics Society Medal for the Development of Physics in Mexico, and the UNAM National University Award for Research in Exact Sciences. She also is a commissioner of the International Commission on Radiation Units and Measurements.



**JING CAI, PhD**

Jing Cai earned his PhD from the University of Virginia in 2006 and remained a medical physics resident

there until 2009. After that he joined Duke University as an Assistant Professor and was promoted to Associate Professor in 2014. Dr. Cai joined the Hong Kong Polytechnic University in 2017 as a tenured Associate Professor. He was board certified in therapeutic radiological physics by ABR. He is the past Director of the Education Program Therapy Track and an organizer of the Certification Course at the AAPM Annual Meetings. He is an Associate Senior Editor of the Red Journal and an Associate Editor of *Medical Physics*. He is the Co-Chair of the Imaging for Treatment Assessment Work Group. He served as principal investigator for seven external research grants, including three from the NIH. He has published more than 60 papers and 190 conference abstracts, and has mentored more than 30 students and residents as the primary advisor.



**DAVID J. CARLSON, PhD**

David J. Carlson, PhD, is an Associate Professor at the Yale University School of Medicine

and a Medical Physicist at Yale-New Haven Hospital. His responsibilities include direct patient care as well as research, teaching, and technological innovation. Dr. Carlson received his PhD in medical physics from Purdue University and completed his residency in radiation oncology physics at Stanford University. He is certified by the American Board of Radiology in therapeutic radiologic physics. He has been very active in both AAPM and ASTRO. He recently served as a member of the Board of Directors of AAPM and currently serves as a Senior Associate Editor for the *International Journal of Radiation Oncology, Biology, and Physics*. Dr. Carlson is past-president of both the Connecticut and San Francisco Bay Area chapters of AAPM. The overall goal of his research is to develop more accurate biological dose-response models to advance our understanding of the mechanisms that govern treatment response and improve radiotherapy outcomes for cancer patients.



**GUANG-HONG CHEN, PhD**

Dr. Guang-Hong Chen is a tenured Professor of Medical Physics and Radiology at the University of Wisconsin-Madison. Dr. Chen serves on the Editorial Board of the *Medical Physics* journal and has served as Scientific Program Co-Director

and Director of the AAPM Annual Meeting and SPIE Medical Imaging conferences. He received several awards including the Outstanding Research Achievement in Physics (2002), Best Paper in Imaging Physics at the AAPM Annual Meeting (2013, 2014, 2017), and the Kellett Outstanding Mid-Career Faculty Award (2014). In 2015, he was elected as a Fellow of the American Institute of Medical and Biological Engineering (AIMBE). Dr. Chen has trained more than 20 PhD students in Medical Physics. Many of them became John Cameron Young Investigator candidates; several received awards at AAPM or received RSNA Trainee Research awards. Dr. Chen has published over 170 scientific papers and was granted more than 30 US and international patents.



**EILEEN CIRINO, MS**

Eileen Cirino is a Medical Physicist who is certified by the American Board of Radiology and is working at Lahey Hospital and Medical Center in Radiation Oncology. Her primary professional interests are safe clinical implementation of new technologies and stewardship of her profession. She has served in several committee positions in the American Association of Physicists in Medicine and the American College of Medical Physicists including board level positions in the

New England Chapter of AAPM. She was elected to Fellow of the American College of Medical Physics and continues her volunteer work currently as a member of the AAPM Professional Council and Director of the Professional Track for the AAPM 2018 Annual Meeting. She has enjoyed training many new physicists, dosimetrists, and therapists and considers it a privilege to have spent her career in the Boston area, home to a very active medical physics community.



**JESSICA B. CLEMENTS, MS**

Jessica Clements received her BS in physics from Pittsburg State University in 2002 and her MS

in nuclear engineering sciences from the University of Florida in 2005. She was certified by the American Board of Radiology in diagnostic radiologic physics in 2008 and nuclear medical physics in 2011. She is the Chief Physicist and Regional Radiation Safety Officer for the Southern California region of Kaiser Permanente. She has served in many capacities within AAPM including Chair of Clinical Practice Committee, Spring Clinical Meeting, Task Group 313: Nuclear Medicine Shielding Requirements, Medical Physics Leadership Academy, and New Professionals Subcommittee as well as a member of Professional Council and other committees. In addition, she has

contributed to several commissions and accreditation programs of the American College of Radiology, served as an examiner and member of several committees of the American Board of Radiology, currently is serving as the Chair of the Diagnostic Oral Exam Committee, and is AAPM Liaison and a Resource Individual to the Conference of Radiation Control Program Directors.



**LAURENCE E. COURT,  
PhD**

Laurence Court received his PhD in imaging physics from University College London. He then

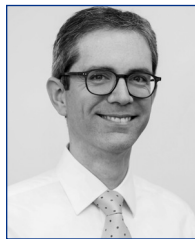
worked in industrial medical imaging R&D for several years before coming to MD Anderson as a postdoc for Lei Dong in 2002. After his postdoc, Laurence moved to the Dana-Farber Cancer Institute in Boston where he worked as a clinical physicist until 2010 when he was hired back at MD Anderson. He now runs a research group of 10-15 people, including eight graduate students. His group focuses on two topics: (1) tools to improve automation and therefore provide access to radiotherapy in low- and middle-income countries, and (2) quantitative imaging (including radiomics) to support clinical decision making. He has a variety of additional roles at MD Anderson, including Admissions Director for the Medical Physics Graduate Program, and Co-Director for Global Programs in the Division of Radiation Oncology.



**SHIVA K. DAS, PhD**

Dr. Das graduated with a PhD in engineering from Duke University, following which he served as

a postdoctoral researcher in the hyperthermia program in the Department of Radiation Oncology at Duke University. He subsequently went on to train in medical physics in the same department. Dr. Das started his faculty career in medical physics at Duke University in 1995 as an Assistant Professor. While at Duke, he developed and taught a graduate level course in advanced photon radiotherapy, was co-director of the residency program, and served as PI or co-PI on numerous grants in the areas of hyperthermia and radiation therapy. In 2014, by which time he had been promoted to full professor, he moved on to the University of North Carolina to become Director of Medical Physics. Dr. Das currently serves on several AAPM committees and is also one of three main editors for the *Medical Physics Journal*.



**DAVID P. GIERGA,  
PhD**

David Gierga is a Medical Physicist at the MGH Department of Radiation Oncology

and an Assistant Professor at Harvard Medical School. His interests include

quality assurance, surface imaging, radiation safety, and improving treatment plan quality. He has been active on several AAPM committees, and currently serves as Chair of the Practice Environment Sub-Committee. Dr. Gierga has served the New England Chapter as President-Elect, President, and Immediate Past President, and is currently a member of the Chapter Nomination Committee. He has been a Clinical Mentor in the Harvard Medical Physics Residency Program since 2009, Residency Program Director since 2015, and Certificate Program Director since its inception in 2016. He has also given numerous lectures to medical residents and has taught an undergraduate radiation therapy physics course for 15 years. Dr. Gierga has also been active in global outreach, serving as Physics Coordinator for the BOTSOGO MGH/Harvard/Botswana oncology collaboration.



**STEPHEN J. GLICK,  
PhD**

Dr. Glick received a PhD in biomedical engineering from Worcester Polytechnic Institute

in 1991. He joined the Department of Radiology at the University of Massachusetts Medical Center in 1991 and was promoted to Professor of Radiology before he left in 2014. At University of Massachusetts he published on several aspects of breast

tomosynthesis and breast CT including radiation dose, imaging technique optimization, image reconstruction methods for assessing image quality, and use of photon counting detectors. He is currently a Senior Staff Fellow with the Center for Devices and Radiological Health at the U.S. Food and Drug Administration. Dr. Glick has spent the past 30 years doing research in the physics of medical imaging primarily funded by numerous research grants from the National Institutes of Health as well as private industry. He has published over 70 peer-reviewed journal papers, 120 conference proceedings and abstracts, and nine book chapters.



**CARRI K. GLIDE-  
HURST, PhD**

Dr. Glide-Hurst obtained a PhD in medical physics from Wayne State University (WSU)

in 2007 and then spent two years in postdoctoral training at William Beaumont Hospital. She has since worked at the Henry Ford Health System, where she is Director of Translational Research in Radiation Oncology and an Associate Professor at WSU. Her primary focus includes implementation of MR-SIM and MR-guided radiation therapy. Dr. Glide-Hurst was awarded a prestigious NIH R01 on MR-only Treatment Planning and is PI/Co-PI on 11 other grants. She has published 48 manuscripts, four book

chapters, 125 abstracts, and holds one patent. She serves on nine AAPM committees, most notably the Strategic Planning Committee, Board of Directors, Co-chair of TG-284 on MR-SIM, Annual Meeting Scientific Track Co-Director, and AAPM Summer School faculty. She serves on ABR Medical Physics Parts 2 and 3 Therapy Exam Committees. Dr. Glide-Hurst is passionate about mentoring future physicists and has mentored 14 residents and 17 researchers in her career.



**BENNETT S. GREENSPAN, MD**

Bennett S. Greenspan, MD, MS, FACNM, FACR, FSNMMI, graduated from the University of Illinois School of Medicine. He is certified in radiology and nuclear medicine by the American Board of Radiology and the American Board of Nuclear Medicine. He received an MS in medical physics from the University of California-Los Angeles. Dr. Greenspan has been involved in research, education, and national service and leadership, for many years. He has been a national leader in nuclear medicine and is known as an expert in quality in nuclear medicine. He served on CAMPEP (and its predecessor) from 1991-2013, and several committees of AAPM. He has just completed his term as President of SNMMI in June, 2018.

Dr. Greenspan has authored 47 peer-reviewed publications. He presented two invited presentations at the AAPM Annual Meeting (2016 and 2017). He has given over 75 invited presentations on nuclear medicine regionally, nationally and internationally, and 19 presentations as a Visiting Professor.



**NILENDU GUPTA, PhD**

Nilendu Gupta was born and brought up in Calcutta, India. He completed his undergraduate education in India

at the Indian Institute of Technology, receiving a BTech in electrical/instrumentation engineering. He then migrated to the USA and received his Masters degree in 1990, and a PhD in 1995, both from The Ohio State University in Biomedical Engineering with a major in medical physics. He continued his training as a research staff in radiation oncology and subsequently joined the faculty at Ohio State. He is certified by the American Board of Radiology and has been the Chief Medical Physicist in Radiation Oncology at Ohio State for the past decade, spearheading large technical advances and expansion projects in the cancer program and the department. Dr. Gupta has published over 45 papers in peer reviewed journals, and presented over 90 abstracts at scientific conferences. He established

the Medical Physics Residency Training program at Ohio State in 2003 and serves as the Program Director, and has trained 20 physics residents and advised 20 masters and PhD students. He has been active professionally serving AAPM, ACR, ABR and CAMPEP.



**STEPHEN F. KRY, PhD**

Stephen Kry received MS and PhD degrees in medical physics from the University of Texas MD Anderson Cancer Center, graduating in 2007. After four years on faculty as a clinical physicist, he joined the Imaging and Radiation Oncology Core in 2010. He is currently Associate Professor with tenure and Associate Director of the IROC Houston QA office. He is a course coordinator in MD Anderson's medical physics graduate program, and has supervised 10 graduate students. He has written 88 peer reviewed publications and five book chapters, is an Associate Editor of *Medical Physics* and *JACMP*, an ABR examiner, and a regular consultant to the IAEA. He is Chair of AAPM's TG-158 and TG-191 Reports, the Report on Medium Specification for Calibration, and the Work Group on Radiation Dosimetry. He is a member of eight other subcommittees and task groups. Dr. Kry has independent NIH R01 funding and other government and industry support.



**JOERG LEHMANN, PhD**

Joerg Lehmann obtained his formal education in Germany before moving to Stanford

University for a postdoctoral fellowship in radiation oncology in 1999. He has subsequently held academic and clinical positions with the University of California and Radiological Associates of Sacramento. In 2011 Dr. Lehmann was employed by the Australian federal government to take a leading role in the design and implementation of the Australian Clinical Dosimetry Service (ACDS), a national dosimetric auditing service for radiation oncology. Dr. Lehmann currently works as Principal Medical Physicist at the Calvary Mater Hospital in Newcastle, Australia. He is active in research and also works as the QA Physicist for the Trans Tasman Radiation Oncology Group (TROG). Dr. Lehmann has cofounded "Photography in Medical Physics," an initiative and photography competition to promote the profession of medical physics ([www.photographyinmedicalphysics.com](http://www.photographyinmedicalphysics.com)). Dr. Lehmann teaches medical physics at the University of Sydney and also holds appointments with the University of Newcastle and RMIT Melbourne.



**HARISH K. MALHOTRA, PhD**

Dr. Malhotra is an Associate Professor in the Department of Radiation Medicine at Roswell

Park Cancer Institute, Buffalo, NY. Dr. Malhotra earned a doctorate in physics from the University of Mumbai, India, and did a post-doctoral fellowship at Montefiore Medical Center, Albert Einstein College of Medicine, New York. He is presently serving as a member of the Committee on Medical Physicists as Educators as well as the Asian Oceanic Affairs Subcommittee of AAPM since 2015. Dr. Malhotra is an Associate Editor of JACMP. He is a member of the ABR-OLA Question Writing Committee. He has served on the Board of Chancellors of the ACMP as well as the President of the Upstate New York Chapter of AAPM. He has served on the advisory committees of a number of PhD/MS students and has served as major advisor to many of them. He has over 30 papers in refereed journals and over 22 invited presentations.



**KIARAN P. MCGEE, PhD**

Dr. McGee is a Professor of Medical Physics at Mayo College of Medicine and a Consultant in the Department of Radiology. He

is a board certified medical physicist in both diagnostic and therapeutic radiologic physics specializing in the development of advanced magnetic resonance imaging methods for both diagnostic and therapeutic applications. He received a Bachelors of Applied Science degree from the University of Technology, Sydney, a Masters of Medical Physics degree from the University of Manitoba, Canada and a Doctor of Philosophy degree from the Mayo Graduate School. He holds over 10 US and International patents. Dr. McGee has over 50 peer reviewed publications and is involved in teaching and mentoring of graduate students through the Mayo Graduate School. His research interests include the development of MR methods for quantifying the mechanical properties of tissue as a biomarker of disease stage, progression and response to therapy.



**TINSU PAN, PhD**

Dr. Tinsu Pan is certified by the ABR and ABSNM. He received a PhD in EECS from the University of

Michigan, Ann Arbor, Michigan in 1991, followed by post-doctoral training in nuclear medicine at the University of Massachusetts Medical Center, Worcester, Massachusetts under Dr. Michael King, from 1991-1993. He continued on as research faculty

to 1996. He then joined the Applied Science Laboratory of GE Healthcare as a Senior Physicist researching CT to 2003. He is now a professor of the Departments of Imaging Physics and Radiation Physics at the University of Texas, MD Anderson Cancer Center. Dr. Pan designed the two commercial products of cardiac CT and 4D CT for GE LightSpeed CT scanners during his tenure with GE. His interests are in the imaging of thoracic tumors or the heart with CT and PET/CT. He has published nine book chapters, 14 patents and 120 papers.



**DANIEL C. PAVORD MS**

Dan Pavord received an MS degree from The University of Pittsburgh in 1989 after completing

a medical physics fellowship at St. Francis Hospital. He has worked as a medical physicist in Pittsburgh, PA and Poughkeepsie, NY since that time. He is currently the Senior Medical Physicist for Projects at Allegheny Health Network. Mr. Pavord has been active in local chapters of AAPM since being a student and at the national level since 1999. He has served as Treasurer, President (twice), and Board Representative of the Penn-Ohio chapter. He is currently Chair of the Professional Council and has served as Chair of the Clinical Practice committee, Practice Environment Subcommittee, and

Regional Organization Committee. He has served on Ad Hoc Committees for Organization and Governance and the Nominating Process. Mr. Pavord is currently serving on the Medical Physics 3.0 Ad Hoc Committee.



**ROBERT A. POOLEY PhD**

After completing medical physics graduate and residency training, Bob Pooley has

spent the last 20 years at Mayo Clinic in Jacksonville, FL, dedicating himself to the needs of the patient, his fellow staff, and his institution. At the same time, he has always enjoyed being involved in AAPM, the Florida Chapter and other professional organizations including many years with CAMPEP, ABR, ACR, and ARRT. Recent AAPM involvement includes the Administrative Council, the Adhoc Committee on Governance Assessment and Board of Directors membership as a Chapter Representative. Bob has been married to Joan for 26 years; they have two sons, 17 and 20 years old. Bob enjoys camping, hiking, sailing, and being involved in the Boy Scouts with his sons (obtaining Eagle Scout seems to run in the family!). Above all, Bob always tries to be a good person, and do the right thing.



**MOHAMMAD REZA SALEHPOUR, PhD**

Mohammad Salehpour received a PhD in computational solid-state physics (1991)

and completed a fellowship in medical physics at The University of Chicago. Before joining the University of Texas MD Anderson Cancer Center, he served as Chief Physicist and Medical Physics Graduate Program Director at East Carolina University. At MDACC he has been heavily involved with educational activities including teaching, advising, and co-directing the graduate program. His therapy physics course has been attended by almost 300 currently practicing medical physicists. He has been active in IAEA-sponsored educational efforts at MDACC and has been instrumental in the education of learners from ten countries. He is currently Director of Education and Director of the Residency Program in Radiation Physics, and organizes annual radiation oncology physics courses and board preparation workshops for radiation oncology residents. He mentors many fellows and junior faculty and received recognition for educational efforts. His current research projects are in high energy electron beams and convergent x-rays.



**LAKSHMI SANTANAM, PhD**

Dr. Santanam is a Medical Physicist with academic, clinical and research responsibilities at

Washington University in St. Louis. She plays an active role in departmental quality assurance, process improvement and patient safety committees. She teaches medical physics to residents, graduate students, and MD residents. Dr. Santanam has co-authored 30 peer-reviewed manuscripts and nine other publications. She has been part of the ASTRO Scientific, Education and Safety Committees for Annual Meetings. In addition, she is a member of the AAPM/ASTRO - Integrating the Health Enterprise in Radiation Oncology (IHERO) and the Radiation Oncology- Health Advisory Council (ROHAC), is Vice Chair of WGROLIS, and of the Multidisciplinary Quality Assurance subcommittee (MDQA). She is an active member of the AAPM-QASC (Quality Assurance Sub Committee) and a member of Task Groups 147, 201, 263, and 264. Dr. Santanam's focus is to improve patient safety, work with vendors to improve inter-connectivity, and work on standardization and automation in radiation oncology.



**JENNIFER B. SMILOWITZ, PhD**

Dr. Smilowitz focuses on external beam treatment planning, tomotherapy, and QA; areas

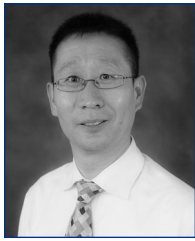
in which she has made significant clinical, academic and service accomplishments. She is committed to physician, resident and dosimetry education. She developed a novel treatment planning course at the University of Wisconsin which is now in its 11<sup>th</sup> year, and also teaches this course as part of the UW Top Physicist Development Project at Tianjin University in China. She was awarded the UW Alliant Energy Underkofler Excellence in Teaching Award in 2016 and a JCERT Certificate of Excellence Award for Clinical Educators in 2015. Dr. Smilowitz's interests are reflected in her AAPM involvement on Education and Professional council subcommittees. She is the AAPM liaison to the Medical Dosimetry Certification Board. In addition, she chaired SUFF and MPPG #5a subcommittees, is on the AAPM Board of Directors and the Audit Committee.



**CYNTHIA L. THOMASON, PhD**

After receiving the first undergraduate physics degree granted to a female by the University of

Notre Dame, Dr. Thomason received a PhD in medical physics from the University of Wisconsin. ABR certified in diagnostic and therapy physics, she has had a career in academics and the clinic including 22 years as Chief Physicist at Northwestern Memorial Hospital and Aurora St. Luke's Medical Center. Now at Loyola University Medical Center, she has mentored physics and medical physics students, young medical physicists and radiation oncology residents, many therapist and dosimetrist students and given invited talks at regional and national therapist and dosimetry meetings. She is an adjunct instructor with the UW-LaCrosse medical dosimetry program. Serving AAPM through committee, task group, and working group memberships, and local chapters, she also authored more than 20 peer-reviewed papers and book chapters and presented more than 55 abstracts and invited talks at national and international conferences.



**BRIAN WANG, PhD**

Brian Wang received a PhD in nuclear engineering from Rensselaer Polytechnic Institute (Troy, NY)

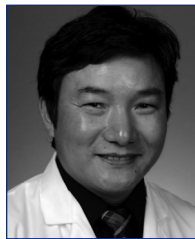
in 2005. His first job was as a Faculty Medical Physicist in the Department of Radiation Oncology at Cooper University Hospital, where he received on-the-job clinical training. Dr. Wang moved to the University of Utah as an Assistant Professor in 2007. He joined the University of Louisville as the Chief of Physics and Medical Physics Residency Director in 2013. At AAPM, Dr. Wang has been a Program Director and Subcommittee Chair for the Spring Clinical Meeting and its predecessor, the ACMP Annual Meeting for eight years. He is an Associate Editor for the JACMP and a frequent journal reviewer. Dr. Wang serves on several committees at ASTRO and RSS, and he is also an ABR oral examiner.

at Orlando Health. She has also been involved in the introduction of many different technologies into the clinical environment, including ultrasound image guidance, robotic radiation therapy, x-ray image guidance, MV image guidance, and mini-multileaf IMRT, as well as radiosurgery and high dose radiotherapy to various different areas of the body. Dr. Willoughby has presented on SBRT, IGRT, and motion management at various conferences. She has also conducted research in simulation as a training tool for radiation oncology and developed a simulation tool specifically for radiation oncology. (Patent submitted.) Most recently she helped to commission and implement proton therapy at Orlando Health and has been working as a proton physicist for over two years.



**TWYLA R. WILLOUGHBY, PhD**

Dr. Willoughby has been a medical physicist for over 20 years. She has been involved in various aspects of radiation therapy including the developing of IMRT programs at the Cleveland Clinic and



**YULONG YAN, PhD**

Yulong Yan received a PhD (1997) in Biomedical engineering from Southeast University, Nanjing, China. In

1994, he accidentally stepped into medical physics when he was involved in developing treatment planning systems for stereotactic radiosurgery. His physics career started in 1999 when he took a post-doc position at Stanford University School of Medicine. After that he became an Assistant Professor (2001-

2007) and then a tenured Associate Professor (2007-2012) at the University of Arkansas for Medical Sciences. Dr. Yan is currently an Associate Professor (2012-2018) and Director of Computational Physics, Division of Medical Physics and Engineering, Department of Radiation Oncology, UT Southwestern Medical Center. He has been teaching throughout his career. From 2005 to 2012, he served as the Director of the Medical Dosimetry Program at the University of Arkansas. His research interests include treatment planning, image processing, medical informatics, and computational physics/radiobiology. He has published over 46 peer-reviewed articles. Dr. Yan has a passion for clinical innovations. As the PI, he owns two patents and two copyrighted artifacts. He is known as the "DICOM man" who coaches DICOM standards and handles datasets in clinic and research. Dr. Yan became a full member of AAPM in 2002. He has served on two subcommittees in AAPM.



**LIFENG YU, PhD**

Lifeng Yu received a PhD degree in medical physics from the University of Chicago in 2006, and joined Mayo Clinic

as a Clinical Physicist the same year. He is presently a Professor of Medical Physics and the Head of the CT Physics

Section in the Radiology Department at Mayo, Rochester. Dr. Yu has previously served as Co-Director and Director of the Imaging Scientific Program for the AAPM Annual Meetings, and has been a member of over 10 committees and task groups in AAPM. As a representative of the CT Subcommittee, he is the liaison to the International Electrotechnical Committee (IEC) on CT Standards. He has been the Chair of the Physics Track in the Refresher Course Committee in RSNA since 2016. Dr. Yu has had over 100 peer-reviewed journal publications and 11 issued patents, four of them commercially licensed. He has made contributions to CT dose optimization, image quality assessment, image reconstruction, and multi-energy CT.

## JOHN S. LAUGHLIN YOUNG SCIENTIST AWARD



### MAGDALENA BAZALOVA-CARTER, PhD

Magdalena Bazalova-Carter received her undergraduate degree from the Czech Technical University in Prague and her PhD in physics at McGill University in Montreal, where she studied the use of computed tomography images for Monte Carlo treatment planning of radiotherapy. Under the supervision of Frank Verhaegen, she suggested the use of dual-energy CT images for more accurate dose calculations. After receiving her PhD in 2009, Magdalena

became a postdoctoral fellow at Stanford University where she started working in the field of small animal radiotherapy. She improved the accuracy of Monte Carlo dose calculations and investigated dose-enhanced radiotherapy with contrast agents. Magdalena was promoted to Instructor at Stanford University in 2012. She received the 2012 AAPM Research Seed Funding Grant to study radiotherapy delivered with very high-energy electron beams and she was awarded the 2013 AAPM Jack Fowler Junior Investigator award for her results obtained on the project. In the same year, she received a 5-year NIH K99/R00 award to study x-ray fluorescence CT (XFCT) as a molecular imaging modality. In 2015 after spending one month rock-climbing in Norway, Magdalena moved from California to British Columbia, where she was appointed Assistant Professor and Tier 2 Canada Research Chair in Medical Physics at the University of Victoria. Her XCITE (X-ray Cancer Imaging and Therapy Experimental) lab continues to explore XFCT imaging, small animal radiotherapy, and is interested in developing cost-effective radiotherapy with kilovoltage x-rays. Apart from being a rock-climber, Magdalena is also an avid mountaineer. In 2011, she climbed Aconcagua, the highest peak of the Americas at 22,837 ft.

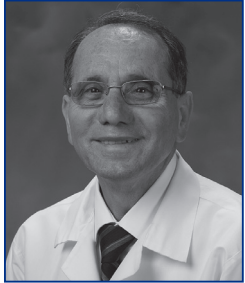
## MARVIN M. D. WILLIAMS PROFESSIONAL ACHIEVEMENT AWARD RECIPIENTS

Gail D. Adams	1989	Edward S. Sternick	2006
Peter R. Almond	1990	Michael D. Mills	2007
Ann E. Wright	1991	Edward Lee Nickoloff	2008
John S. Laughlin	1992	Melissa Carol Martin	2009
Robert O. Gorson	1993	Walter Grant	2010
Robert J. Shalek	1994	Benjamin R. Archer	2011
Nagalingam Suntharalingam	1995	William F. Hanson	2012
James A. Purdy	1996	Marilyn Stovall	2013
Colin G. Orton	1997	Herbert W. Mower	2014
Faiz M. Khan	1998	Christopher H. Marshall	2015
Jimmy O. Fenn	1999	Jean M. St. Germain	2015
Moses A. Greenfield	2000	Keith J. Strauss	2016
Stewart C. Bushong	2001	Stephen Balter	2017
Bhudatt R. Paliwal	2002	Michael T. Gillin	2017
James B. Smathers	2003	Muthana S.A.L. Al-Ghazi	2018
Kenneth R. Hogstrom	2004	Louis K. Wagner	2018
Edwin C. McCullough	2005		

# BEYOND THE FUTURE!



## MARVIN M. D. WILLIAMS PROFESSIONAL ACHIEVEMENT AWARD



### **MUTHANA S.A.L. AL-GHAZI**

Muthana Al-Ghazi obtained his BSc (Honours Class I) and MSc at Birmingham University (UK) and his PhD at the University of Manitoba (Canada). He was a postdoctoral fellow at the Manitoba Cancer Foundation and completed a residency at the London Cancer Centre (Ontario, Canada). He assumed positions of increasing responsibility in Canada and the United States culminating in his present position of Professor and Director of Medical Physics

at the University of California, Irvine. He directs a CAMPEP accredited physics residency and JRCERT accredited dosimetry training programs. He is a fellow of the CCPM (1988), AAPM (2008) and the IOMP (2018). He is board certified by the ABR and the ABMP in therapeutic medical physics. Dr. Al-Ghazi earned the "Educator of the Year" award from the Association of Residents in Radiation Oncology (ARRO) in 2011 for excellence in residents' education. The International Medical Corps awarded him "Volunteer Doctor" for humanitarian service in Iraq (2010). He contributes to international medical physics activities and educational programs with an emphasis on the Middle East. He won many other awards from several Middle Eastern countries. His research interests include application of new technologies in the accurate and precise planning and delivery of radiation treatment to cancer patients, Y-90 radioembolization for liver tumors, and intraoperative radiotherapy, amongst others. He is the (co)author of over 170 papers, book chapters, reports and abstracts in journals, conference proceedings, and other venues. He has been an invited/contributing speaker at over 90 regional, national, and international conferences.



### **LOUIS K. WAGNER, PhD**

Born in 1949 to two wonderfully nurturing parents who never finished high school, Louis K. Wagner took seriously their advice to seek a good education.

In 1971, Louis graduated magna cum laude from Xavier University in Cincinnati. That fall he matriculated into the graduate physics program at The Florida State University. There he met and married his life-long love – Carol Ann Cotten. Under Professor Raymond Sheline, Louis conducted

doctoral research on prolate platinum nuclei at the stopped-muon channel of the Los Alamos Scientific Laboratories, graduating in 1976.

In 1977, Louis became a National Science Fellow in Medical Physics under Doctor John Laughlin at Memorial Hospital/Sloan-Kettering Cancer Center in New York.

In 1978, he accepted a position from Doctor Richard G. Lester at the University of Texas Houston Medical School, now McGovern Medical School, as Assistant Professor in Diagnostic Radiology. By 1985 he was promoted to Chief of Ionizing Radiation Physics, serving the medical school and its affiliated hospitals. He was elevated to Professor in 1992.

Louis professionally focused on improving management of radiation in the delivery of diagnostic and interventional imaging. This culminated in two widely distributed books *Exposure of the Pregnant Patient to Diagnostic Radiations* and *Minimizing Risks from Fluoroscopic X Rays*. He has lectured globally on managing radiation in medicine. A fellow of the American College of Radiology and of the American Association of Physicists in Medicine, he retired from full-time work in January 2018.

## EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD RECIPIENTS

Arnold Feldman	1996	Laurence P. Clarke	2010
Robert O. Gorson	1997	Joel E. Gray	2011
John Hale	1998	Martin S. Weinhaus	2011
Jon H. Trueblood	1998	Charles A. Mistretta	2012
Kenneth A. Wright	1998	Edward S. Sternick	2012
Perry Sprawls	1999	Kenneth N. Vanek	2012
Joe P. Windham	1999	Caridad Borrás	2013
William F. Hanson	2000	Norbert J. Pelc	2013
Mary L. Meurk	2000	George Starkschall	2013
Amos Norman	2002	Howard Ira Amols	2014
Stewart C. Bushong	2003	Bruce H. Curran	2014
Radhe Mohan	2003	Edward Lee Nickoloff	2014
Donald E. Herbert	2004	Larry A. DeWerd	2015
Azam Niroomand-Rad	2006	Kunio Doi	2015
Lawrence N. Rothenberg	2007	Melissa Carol Martin	2015
Marilyn Stovall	2007	Wendell R. Lutz	2016
James M. Galvin	2008	Robert J. Pizzutiello	2016
Kenneth R. Kase	2008	Michael V. Yester	2016
James A. Deye	2009	G. Donald Frey	2017
Lawrence E. Reinstein	2009	John W. Wong	2017
Raymond L. Tanner	2009	Jerry D. Allison	2018
Benjamin R. Archer	2010	Frank J. Bova	2018

## EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD



### JERRY D. ALLISON, PhD

Jerry D. Allison, PhD, earned a doctoral degree in nuclear engineering (medical physics) from the University of Florida in 1978. Dr. Allison joined the faculty of the Department of Radiology at the Medical College of Georgia (MCG), serving as the radiation safety officer for MCG and the associated Augusta Veterans Administration Medical Center (AVAMC). In 1980, he began appointments at MCG as a Diagnostic Medical Physicist and at AVAMC as a

Health Physicist. Since 1995, he has been a medical physicist at MCG, serving as Chief of Medical Physics from 2004 until 2011. Dr. Allison retired from MCG in June of 2011 but returned as part-time faculty in October of 2011.

Dr. Allison is certified in diagnostic medical physics and medical nuclear physics by the American Board of Radiology (ABR). He is certified in MRI physics by the American Board of Medical Physics and in Health Physics by the American Board of Health Physics. He is a licensed Professional Engineer in Virginia. He has been elected Fellow of the American Association of Physicists in Medicine (AAPM) and the American College of Radiology.

Dr. Allison served as President and AAPM Board Representative of the Southeastern AAPM Chapter (SEAAPM) and is a recipient of the SEAAPM Jimmy Fenn Lifetime Achievement Award. He served as Secretary of AAPM for three years, AAPM Board Parliamentarian for six years and currently serves as a Trustee of the ABR. He has expertise in the field of diagnostic imaging with an emphasis in MRI, mammography, and nuclear medicine. His research interests included functional MRI (fMRI) and imaging of childhood obesity. Dr. Allison has authored or co-authored 64 publications and five book chapters.

Jerry has restored two Model-T Fords, one of which belonged to his grandfather.



## EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD



### FRANK J. BOVA, PhD

Frank J. Bova was born in New York, NY and received his doctoral degree from the University of Florida in 1977. He joined the University of Florida faculty in 1978, was appointed the Albert E. and Birdie W. Einstein Fund Professor of Computer-Assisted Stereotactic Neurosurgery within the Department of Neurosurgery in 1991, and Professor of Neurosurgery in 1999.

In 1985, Dr. Bova began the University of Florida

Radiosurgery Program in collaboration with Dr. William Friedman. Their work has produced multiple patents for mechanical and computer systems associated with radiosurgery and image guided procedures. In total, Dr. Bova holds 13 patents, with the first awarded in 1992. The UF Radiosurgery Program has treated over 4,600 patients and assisted in over 2,600 biopsies and DBS procedures. Most recently, Dr. Bova has patented a robotic imaging platform to provide integrated navigation capabilities for surgical guidance.

Dr. Bova is the Principal Investigator for the McKnight Brain Institute Radiosurgery/Biology Laboratory from which his team supports clinical image guidance for UF Health Hospitals and develops new technologies in the areas of image guidance, computer-assisted neurosurgery, mixed-reality simulation, 3D printing, and radiosurgery. Dr. Bova currently holds joint appointments at UF in the College of Engineering and the College of Veterinary Medicine, and currently serves on the UF Intercollegiate Athletics Committee.

In 2001, the International Stereotactic Radiosurgery Society presented Dr. Bova with the Fabricant Award. In 2007, the Florida AAPM awarded Dr. Bova with the Walter Mauderli Award. Most recently, Dr. Bova was given both the University of Florida College of Medicine Lifetime Achievement Award and Office of Technology and Licensing Inventor of the Year, both in 2014.

## WILLIAM D. COOLIDGE GOLD MEDAL RECIPIENTS

William D. Coolidge	1972	Leonard Stanton	1996
Robert J. Shalek	1973	James A. Purdy	1997
John S. Laughlin	1974	Bengt E. Bjarngard	1998
Marvin M. D. Williams	1975	Faiz M. Khan	1999
Harold E. Johns	1976	Lowell L. Anderson	2000
Edith E. Quimby	1977	Ravinder Nath	2001
Lawrence H. Lanzl	1978	Bhudatt R. Paliwal	2002
Herbert M. Parker	1979	Kenneth R. Hogstrom	2003
John R. Cameron	1980	C. Clifton Ling	2004
James G. Kereiakes	1981	Gary T. Barnes	2005
Gail D. Adams	1982	Ervin B. Podgorsak	2006
Edward W. Webster	1983	Arthur L. Boyer	2007
Robley D. Evans	1984	Paul L. Carson	2008
Jack S. Krohmer	1985	Willi A. Kalender	2009
Warren K. Sinclair	1986	David W. O. Rogers	2010
Gordon L. Brownell	1987	Richard L. Morin	2011
John R. Cunningham	1988	Stephen R. Thomas	2012
William R. Hendee	1989	Benedick A. Fraass	2013
Peter R. Almond	1990	Thomas Rockwell Mackie	2014
Moses A. Greenfield	1991	Maryellen L. Giger	2015
Nagalingam Suntharalingam	1992	Paul M. DeLuca	2016
Colin G. Orton	1993	Jatinder R. Palta	2017
F. Herb Attix	1994	Radhe Mohan	2018
Robert Loevinger	1995		

## WILLIAM D. COOLIDGE GOLD MEDAL

### RADHE MOHAN, PhD



Dr. Radhe Mohan is a tenured Professor and the holder of the Larry and Pat McNeil Chair in the Department of Radiation Physics at the University of Texas MD Anderson Cancer Center, Houston, TX. He received his BSc and MSc degrees in physics from Punjab University, Chandigarh in 1962 and 1963, and a PhD in nuclear physics from Duke University, Durham, NC in 1969. He completed his post-doctoral training at Rutgers University, New Brunswick, NJ.

Dr. Mohan started his medical physics career in 1971 at Memorial Sloan-Kettering Cancer Center in New York. He rose to the rank of Professor with Tenure and Associate Chairman at MSKCC; leaving in 1996 to become the Director of Radiation Physics at the Medical College of Virginia. He joined MD Anderson as Chairman of the Department of Radiation Physics in January 2002, stepping down in October 2010 to focus on proton therapy.

Dr. Mohan's extensive experience includes pioneering contributions in the design, development, and applications of computer-controlled radiation dosimetry systems; mathematical optimization methods; accurate methods of dose computations based on non-local energy deposition and Monte Carlo techniques; image processing; 3DCRT and IMRT planning and delivery systems; and research related to the development of the flattening-filter-free treatment delivery mode of linear accelerators.

At MD Anderson, Dr. Mohan led the establishment of research programs in image-guided and adaptive radiotherapy, IMRT, dose-response modeling and proton therapy. Since 2005 he has focused mainly on the physical, clinical, biological and, most recently, on immunomodulatory aspects of proton therapy. Dr. Mohan was the MDACC Principal Investigator of a completed 5-year (2009-2014) NCI Program Project grant, jointly with MGH. This Program Project was renewed as a U19 for another 5 years (2015-2019). The knowledge derived from these Program Projects is being translated into the development of novel proton therapy treatment planning and delivery methods for clinical trials and practice

to enhance the robustness and clinical effectiveness of proton treatments.

In addition to the Program Projects, Dr. Mohan has received numerous research grants from the NCI and industry. He has nearly 450 publications, including over 370 in peer-reviewed journals. He was the Senior Physics Editor of *The International Journal of Radiation Oncology, Biology, and Physics* from 2002 through 2011. He is an active member and a Fellow of both AAPM and ASTRO. He has served, and continues to serve, on various committees of both societies. He has served or is serving on the external advisory boards of several organizations including the CERN Medical Applications International Strategy Committee, International Conference on Translational Research in Radio-Oncology and Germany's National Center for Tumor Diseases Scientific Advisory Board.

Among the awards Dr. Mohan has received during his career are the AAPM's Edith Quimby Lifetime Achievement Award in Medical Physics in 2003; the Allan M. Cormack Gold Medal of the Association of Medical Physicists of India in 2004; and the ASTRO Gold Medal in 2013.

Dr. Mohan is happily married to Millie Mohan and has two children, Denise and David, and two grandchildren, Amanda and Robert Labra.

*Music provided by Music City String Quartet*



*Congratulations*

to all of the Award Recipients!

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