

## AAPM 2023

JULY 23-27 | HOUSTON, TX 65<sup>TH</sup> ANNUAL MEETING & EXHIBITION





The ART OF SCIENCE
The SCIENCE OF CARE



MONDAY, JULY 24TH; 6:30 PM Houston Ballroom 1-4 (Meeting Level 2) Marriott Marquis Houston Hotel





Ehsan Samei, PhD, DABR, FAAPM, FSPIE, FAIMBE, FIOMP, FACR AAPM President

Honoring Deceased AAPM Members

AAPM Fellowships, Grants & Other Awards

MedPhys Slam

**Grand Challenges** 

Jack Fowler Early-Career Investigator Award

Jack Krohmer Early-Career Investigator Award

John R. Cameron Early-Career Investigator Symposium Awards

Arthur Boyer Award for Innovation in Medical Physics Education

#### Journal of Applied Clinical Medical Physics Best Paper Awards

- George Starkschall Award of Excellence for an Outstanding Radiation Oncology Physics Article
- Edwin C. McCullough Award of Excellence for an Outstanding Medical Imaging Physics Article
- Peter R. Almond Award of Excellence for an Outstanding Radiation Measurements Article
- Michael D. Mills Editor in Chief Award of Excellence for an Outstanding General Medical Physics Article

#### Medical Physics Journal Best Paper Awards

- Moses and Sylvia Greenfield Paper Award
- Farrington Daniels Paper Award

Recognition of 50+ Years of AAPM Membership
2023 Fellows
2023 John S. Laughlin Early-Career Scientist Award
2023 Edith H. Quimby Lifetime Achievement Award
AAPM Lifetime Achievement Award
2023 William D. Coolidge Gold Medal
Closing Remarks; Reception Immediately Following

**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.

#### AAPM FELLOWSHIPS, GRANTS & OTHER AWARDS

#### AAPM/RSNA Doctoral and Masters Graduate Fellowship

Four \$10,000 Doctoral Awards

• Two awards for first year Doctoral Students. The recipients are:

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Lian Duan — MD Anderson Cancer Center

Dongrong Yang — Duke University Medical Center
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 Two awards for second year or higher Doctoral Students. The recipients are:

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Zhuoran Jiang — Duke University

Meghan Koo — Toronto Metropolitan University
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Awarded to a first or second year MS students. The recipients are:

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Mario Gallardo — University of Pennsylvania
Elissa Khoudary — University of Pennsylvania
Joseph Speth — Purdue University
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#### 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 recipients for 2023 are:

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Brigid McDonald, PhD — MD Anderson Cancer Center
Ryan Oglesby, PhD — The Johns Hopkins University
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## Diversity Recruitment through Education and Mentoring Program (DREAM)

The American Association of Physicists in Medicine (AAPM) Diversity Recruitment through Education and Mentoring Program (DREAM) is a 10-week summer 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 a DREAM fellow. Each DREAM fellow receives a \$6,000 stipend from AAPM. The AAPM Southeast Chapter provided additional support. The DREAM fellows for 2023 are:

Vivian Felso Miranda Harkess Sabrina Ripsman Gabriela Roque Oliveira Nomura Nicole Alma Strecker Jolie Wang

#### **Research Seed Funding Grant**

Jay Wheeler

These grants are awarded to provide funds to develop exciting investigator-initiated concepts, which will hopefully lead to successful long-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 2023 are:

Syamantak Khan, PhD — Stanford University
Shu (Stella) Xing, PhD — Memorial Sloan Kettering Cancer Center
Zi Yang, PhD — Stanford University
Wenbo Gu, PhD — University of Pennsylvania

#### AAPM/RSNA Imaging Physics Residency Program Grant

These grant awards, funded by AAPM and RSNA, provide support for institutions to provide positions in Diagnostic Imaging Physics and/or Nuclear Medicine Physics residencies. Every year two deserving high quality residency programs are selected to receive support for two residents, each to receive matching support during their training. The awardees for 2023 are:

Medical University of South Carolina (Director: E. Russell Ritenour)
Petrone Associates, LLC (Director: Christopher Smitherman)

#### Summer Undergraduate Fellowships

Designed to provide opportunities for undergraduate university students to gain experience in medical physics by performing research in a medical physics laboratory or assisting with clinical service at a clinical facility. In this program, AAPM serves as a clearinghouse to match exceptional students with exceptional medical physicists, many of whom are faculty at leading research centers. Students participating in the 10-week program are placed into summer positions 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 \$6,000 stipend from AAPM. In 2023, the AAPM Southwest Chapter provided additional support. The Summer Undergraduate fellows for 2023 are:

Charlotte Bimson Matthew C. Georgesen

Theodore Manlangit Gifford Mitchell Halajian

Daniel Evan Hoffman Adia Holtman

Benjamin Kohler Skylar Gage McLerran

Maximilian Meineke Erik Quentin Oas
Coral Outwater Jonathan Percy

Emma Grace Sargent Jack Terry

Kaden Vasquez Michael Andrew Ziegenfus

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

These scholarships are offered to applicants who are early in their careers in medical physics. The scholarship recipients for 2023 are:

David Adam Ian Marsh
Xingyu Nie Alok Shankar
Trung Tran Lydia Wilson

#### 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 that 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 EXHG 2022 Round 2 and 2023 Round 1 Travel Grant recipients are:

#### 2022 Round 2 Recipients:

Vidheesha Arora Syamantak Khan

Kevin Liu Devin Miles Hieu Nguyen Lewei Zhao

#### 2023 Round 1 Recipients:

Peng Chen Yeseul Kim

Leening Liu

#### 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 Associates for 2023 are:

David Adam, PhD — The Johns Hopkins University
Stephanie Bennett, PhD — Harvard Medical School
Xiuxiu He, PhD — Memorial Sloan Kettering Cancer Center
Jun Hong, PhD — MD Anderson Cancer Center
Stewart "Mac" Mein, PhD — University of Pennsylvania
Jessica "Jess" Scholey, PhD — University of California San Francisco
Suman Shrestha, PhD — MD Anderson Cancer Center
Cayla Wood, PhD — MD Anderson Cancer Center

#### **AAPM Best Awards**

A travel fellowship for Student, Resident, or Junior Members of AAPM to attend the AAPM Annual Meeting to be exposed to and have access to, scientific and technical information and presentations on current and emerging topics in medical physics and related areas. The recipients for 2023 are:

Peng Chen Carlos Huesa-Berral

Ethan Nikolau Chase Ruff

Lauren Smith Markus Sprenger Kevin Treb Shu (Stella) Xing

Dae-Myoung Yang Zi Yang

#### **MEDPHYS SLAM**

The MedPhys Slam is a research communication competition in which participants present the significance of their science in a concise, compelling yet understandable manner. On Sunday, July 23 from 4:00–6:00 PM participants were judged by a non-physicist panel on three equally weighted categories: comprehension/content, communication, and engagement. The 2023 winners are:

First Place: Aroon Pressram, "The Hidden Hemorrhage: Visualizing Brain Bleeds"

**Second Place: Ellie Bacon,** "Offline Review: A Time-Saving Step Towards Improving Radiation Therapy for Prostate Cancer Patients"

**Third Place & People's Choice Award: Jason Luce,** "Evaluation of an Adaptive Template-Based Tumor Tracking Algorithm Used with Dual Energy Images"

#### **GRAND CHALLENGES**

The Understanding Time-Activity Curve and Time-Integrated Activity Variations in Radiopharmaceutical Therapy (TACTIC) Challenge

This was a data-driven Challenge organized by a multi-national team. The Challenge evaluated the degree of variation in the time-activity curve and time-integrated activity estimation within radiopharmaceutical therapy dosimetry, as well as analyzed and compared various commonly used methods. This Challenge was conducted in two phases and the top-performing teams will present their methods during the AAPM Grand Challenge session on Thursday.

Phase One Winning Team: the Lu-CRO Team: Serena Peric, Giuseppe Fanetti, MD, Giovanni Pirrone, Loredana Barresi, Eugenio Borsatti, MD, Annalisa Drigo (all, Centro di Riferimento Oncologico di Aviano (CRO) IRCCS)

Phase Two Winning Team: the CCNM Team; Frank DiFilippo, PhD (Cleveland Clinic)

Organizers: Marta Cremonesi, PhD (European Institute of Oncology, Italy), Gerhard Glatting, PhD (Ulm University Hospital, Germany), Elisa Grassi, PhD (AUSL-IRCCS of Reggio Emilia, Italy), Oleksandra V. Ivashchenko, PhD (University Medical Center Groningen, the Netherlands), Eero Hippelainen, PhD (University of Helsinki and Helsinki University Hospital, Finland), Deni Hardiansyah, PhD (Universitas Indonesia, Indonesia), Jan W. T. Heemskerk, PhD (Leiden University Medical Center, the Netherlands),

Jim O'Doherty, PhD (Siemens Medical Solutions/Medical University of South Carolina), Johannes Tran-Gia, PhD (University Hospital Würzburg, Germany), and the AAPM Working Group on Grand Challenges.

## The Deep Generative Modeling for Learning Medical Image Statistics (DGM-Image) Challenge

This Challenge evaluated whether DGMs can faithfully reproduce statistics relevant to medical imaging by comparing deep learning-generated images to model-generated images using a similarity score that summarized morphological and intensity-derived statistical measures, as well as breast density features. The top-performing team will present their methods during the AAPM Grand Challenges session on Thursday.

DGM-Image Winning Team: the AXIS\_Lab\_RPI Team; Christopher Wiedeman, Chuang Niu, PhD, Wenjun Xia, PhD, Yongyi Shi, PhD, Ge Wang, PhD (all, Rensselaer Polytechnic Institute)

DGM-Image Runner-up Team: IVA Imagine Al Team; Kunal Singh, Pradeep Moturi, Mukund Khanna, Edwin Webster (all, Fractal Analytics)

**Organizers:** Mark Anastasio, PhD (University of Illinois Urbana-Champaign), Rongping Zeng, PhD (US FDA), Prabhat KC, PhD (US FDA), Kyle J. Myers, PhD (Puente Solutions, LLC), Varun Kelkar, PhD (University of Illinois Urbana-Champaign), Dimitrios Gotsis (University of Illinois Urbana-Champaign), Frank Brooks, PhD (University of Illinois Urbana-Champaign)

#### JACK FOWLER EARLY-CAREER INVESTIGATOR AWARD

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

Rachael Hachadorian — Massachusetts General Hospital, Boston, MA

#### JACK KROHMER EARLY-CAREER INVESTIGATOR AWARD

Established in honor of Dr. Jack Krohmer, PhD, a pioneer in the medical physics community, and sponsored by the Krohmer Memorial Fund and Science Council through the AAPM Education and Research Fund. 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 2023 award is presented to:

#### Hieu Nguyen — Stanford University, Palo Alto, CA

## JOHN R. CAMERON EARLY-CAREER INVESTIGATOR AWARDS

The 10 Early-Career Investigator submissions scored highest by abstract reviews were selected to be presented in a special symposium, held in honor of the University of Wisconsin Professor Emeritus John R. Cameron, PhD. The top three scoring abstracts are:

**First Place: Claire Keun Sun Park — Western University**, for the abstract entitled: "Dedicated 3D Automated Breast Ultrasound with High-Resolution Complementary Imaging for Point-of-Care Breast Cancer Screening in Increased-Risk Populations"

**Second Place: Savannah Marie Decker — Dartmouth College**, for the abstract entitled: "Expanding the Inclusivity of Cherenkov Surface Dosimetry By Quantifying the Effects of Skin Tone in a Multi-Institutional Human Study"

**Third Place: David P. Adam — Johns Hopkins University**, for the abstract entitled: "Creation of Waterproof, Tld Probes for Absorbed Dose Measurements to Validate Image-Based Radiopharmaceutical Therapy Dosimetry Workflow"

## ARTHUR BOYER AWARD FOR INNOVATION IN MEDICAL PHYSICS EDUCATION

The Arthur Boyer Award for Innovation in Medical Physics Education is supported by a generous lead donation by Arthur and Suzanne Boyer which is supplemented by donations to The Boyer Innovation in Medical Physics Education Fund. This award is given for an innovative program, presented at the AAPM Annual Meeting, in the medical physics education of physicists, physicians, ancillary personnel and the public. The 2023 winner is:

Sarah Quirk — Brigham and Women's Hospital; Harvard Medical School, "A Pan-Canadian Initiative to Apply a Competency-Based Simulation Enhanced Education Framework for Medical Physics Learners in the Clinical Implications and Measurement of Absolute Dosimetry"

## JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS PAPER AWARDS

## George Starkschall Award of Excellence for an Outstanding Radiation Oncology Physics Article

"Virtual patient-specific QA with DVH-based metrics"

J Appl Clin Med Phys. 2022; 23e13639.

https://doi.org/10.1002/acm2.13639

Lam M. Lay, Kai-Cheng Chuang, Yuyao Wu, William Giles, and Justus Adamson

### Edwin C. McCullough Award of Excellence for an Outstanding Medical Imaging Physics Article

"A comprehensive quality assurance procedure for 4D CT commissioning and periodic QA"

J Appl Clin Med Phys. 2022; 23:e13764.

https://doi.org/10.1002/acm2.13764

Mitchell Polizzi, Siyong Kim, and Mihaela Rosu-Bubulac

#### Peter R. Almond Award of Excellence for an Outstanding Radiation Measurements Article

"Commissioning an Exradin W2 plastic scintillation detector for clinical use in small radiation fields"

J Appl Clin Med Phys. 2022; 23:e13728.

https://doi.org/10.1002/acm2.13728

Epub 2022 Jul 21. PMID: 35861648; PMCID: PMC9359019

Dustin J. Jacqmin, Jessica R. Miller, Brendan A. Barraclough, and Zacariah E. Labby

## Michael D. Mills Editor in Chief Award of Excellence for an Outstanding General Medical Physics Article

"Method of determining technique from weight and height to achieve targeted detector exposures in portable chest and abdominal digital radiography"

J Appl Clin Med Phys. 2022; 23:e13582.

https://doi.org/10.1002/acm2.13582

Kai Huang, Dong Joo Rhee, Rachel Ger, Rick Layman, Jinzhong Yang, Carlos E. Cardenas, and Laurence E. Court

#### MEDICAL PHYSICS JOURNAL PAPER AWARDS

## Farrington Daniels Award (awarded for an outstanding paper on radiation therapy dosimetry, planning or delivery)

"Bayesian optimization to design a novel x-ray shaping device" Med. Phys., (2022) 49: 7623-7637. https://doi.org/10.1002/mp.15887

Brendan Whelan, Stefania Trovati, Jinghui Wang, Rebecca Fahrig, Peter G. Maxim, Adi Hanuka, Muhammad Shumail, Sami Tantawi, Julian Merrick, Joseph Perl, Paul Keall, and Billy W. Loo Jr.

## Moses and Sylvia Greenfield Award (awarded for an outstanding paper on imaging)

"Patient-specific radiation risk-based tube current modulation for diagnostic CT"

Med. Phys., (2022) 49: 4391-4403. https://doi.org/10.1002/mp.15673 Laura Klein, Chang Liu, Jörg Steidel, Lucia Enzmann, Michael Knaup, Stefan Sawall, Andreas Maier, Michael Lell, Joscha Maier, and Marc Kachelrieß

#### RECOGNITION OF 50+ YEARS OF AAPM MEMBERSHIP

#### 2023 FELLOWS

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

#### Norman Lee Brown, DSc



Dr. Brown is a clinical medical physicist at Memorial Hospital Gulfport. His professional interests include patient safety,

quality improvement, and clinical trials. He earned a Bachelor's in Physics from Xavier University of New Orleans: a Bachelor's in Biomedical Engineering from Tulane University; a Master's in Radiological Medical Physics from the University of Kentucky; and a Doctorate in Health Science from Nova Southeastern University. An active member of AAPM, Dr. Brown served as the Chair of the Technical Exhibit Subcommittee from 2015 to 2020 and his main efforts as a volunteer have been focused on member/vendor relationships for the AAPM Spring Clinical and Annual Meetings. He has also served on numerous AAPM committees and working groups, was a member of the Florida Chapter of AAPM, and is currently

a member of the Southeastern Chapter of AAPM. He currently serves as Chair of the Corporate Relations Committee.

#### Catherine Coolens, PhD, FIPEM



Catherine
Coolens is
an Associate
Professor at the
University of
Toronto in the
Departments
of Radiation
Oncology

and Medical Biophysics. She is a Staff Medical Physicist at Princess Margaret Cancer Centre and the Physics lead of the world's largest Gammaknife Radiosurgery program. She received her PhD in Medical Radiation Physics under Steve Webb, working on Intensity-Modulated Radiation Therapy optimization. Following her boardcertification, Dr. Coolens worked at the Royal Marsden Hospital leading the first clinical implementation of 4D CT and gated liver SBRT in the UK. In 2008 she was recruited to the University of Toronto to start her own lab focusing on development and validation of functional

imaging biomarkers to better characterize the tumor micro-environment and early treatment response assessment. Dr. Coolens is a PI on various grants, has multiple patents related to quantitative imaging, and is co-chair of the MRL consortium Image analysis Task Group. She is an active member of AAPM, RSNA and QIN and a keen tennis player.

#### Michele Ferenci, PhD



Michele Sutton Ferenci earned her undergraduate degree in Physics from Saint Vincent College in 1995 and her

PhD in Nuclear and Radiological Engineering from the Georgia Institute of Technology in 2001. She completed a postdoctoral fellowship at Emory University and joined their faculty in 2003. After working at the University of Pittsburgh Medical Center and University Hospitals of Cleveland, she joined the faculty of Penn State College of Medicine in Hershey, PA in 2008.

Dr. Ferenci is currently an Associate Professor and has been serving as the Chief of Therapeutic Medical Physics for Penn State Health since 2011. Based on her clinical, scientific, and professional contributions, Dr. Ferenci was nominated by AAPM and selected by CMS to serve on the Medicare Evidence Development & Coverage Advisory Committee in 2022. She is passionate about quality, safety, healthcare economics and leadership development. She remains active through various committees and workgroups within AAPM in these areas.

#### Tyler Fisher, MS



Tyler Fisher is a diagnostic and nuclear medical physicist working in Southern California. He graduated from San Diego State University with a

Master of Science in Physics in 2006 and began working at Therapy Physics, Inc. in 2007. In 2019, he became President of Therapy Physics and leads a team of consultant diagnostic physicists. His work as a consultant physicist and his broad expertise in all imaging modalities gives him the freedom to interact with many clients across the Western United States. Tyler has been active in AAPM for many years, particularly with the Annual Meeting Subcommittee

as Chair of the Annual Meeting Education Program Working Group. He currently serves on the AAPM Board of Directors as the Southern California chapter representative. He is married to his college sweetheart, and they enjoy traveling particularly to tropical islands and ski resorts. Tyler is happiest face-down in the ocean, snorkeling or scuba diving through coral reefs.

#### Luis Fong de Los Santos, PhD



Dr. Luis E. Fong de los Santos is an Assistant Professor of Medical Physics in the Department of Radiation Oncology at

Mayo Clinic in Rochester, MN. He earned his undergraduate degree in Physics Engineering from the Instituto Tecnológico y de Estudios Superiores de Monterrev in Monterrey, Mexico and his PhD in experimental biophysics from Vanderbilt University in Nashville, TN. He completed his medical physics residency at Mayo Clinic and joined the Department of Radiation Oncology in 2008. He is currently the Clinical Practice Chair for the Physics Division and the Quality and Safety Committee Co-Chair. Dr. Fong de los Santos'

primary interests are assessment of radiation oncology information systems, analysis and optimization of clinical process and safety and error mitigation strategies. He is a member of the AAPM Work Group on Prevention of Errors in Radiation Oncology and has participated in multiple national and international projects and task groups in the areas of quality and safety.

#### Carnell Hampton, PhD



Dr. Carnell
J. Hampton
has served
as Assistant
Vice President
of Medical
Physics for
Atrium Health's
Levine Cancer

Institute since 2016. He was previously a faculty member in the Department of Radiation Oncology at Wake Forest School of Medicine. After earning an undergraduate degree from South Carolina State University, he completed his graduate studies in Biomedical Engineering, earning a PhD from Wake Forest University. Dr. Hampton launched his medical physics career after completing a residency at Barnes-Jewish Hospital/Washinaton University School of Medicine in Saint Louis. MO. He has made contributions as President of the Southeast Chapter of AAPM and as a track organizer for both the AAPM Spring Clinical and Annual Meetings. The Medical Physics Leadership Academy (MPLA) has been a primary focus of his committee service. Dr. Hampton has been a passionate mentor for students and was instrumental in starting new clinical residency/training programs in Medical Physics and Medical Dosimetry. Carnell is a husband and father of two sons.

#### Beth Harkness, MS



Beth Harkness is a Nuclear Medical Physicist who received her MS in Radiological Sciences from Georgetown University in

1992. She joined Wake Forest
University as a Medical Physicist
in the PET Center where she
supported clinical and research
activities. She served as the
Nuclear Medicine Physicist for
Henry Ford Health System from
2001 until she retired in 2019.
Beth was active in several AAPM
committees, chairing both the
Nuclear Medicine Subcommittee
and the AAPM/Society of Nuclear
Medicine and Molecular Imaging
(SNMMI) Joint Task Force on
the Training and Certification of

Nuclear Medicine Physicists. She was an active member of the American College of Radiology and SNMMI, and Editor of the Journal of Nuclear Medicine Technology from 2000 to 2006. Beth was also a member of the American Board of Radiology qualifying and certification exam committees and an examiner in nuclear medicine physics. During her career, she was interested in quality control and optimal imaging parameters for high-quality images in PET and SPECT.

#### Emily Hirata, PhD



Dr. Emily Yumeko Hirata is the Chief of Clinical Physics and Associate Professor at the University of California, San Francisco.

She has a Master of Science in Medical Physics from the University of Wisconsin-Madison and a PhD in Biomedical Sciences from the University of Hawai'i at Manoa. She is an ACR Physicist surveyor, is on the Radiation Oncology Practice Accreditation (ROPA) Committee, volunteers with the ABR, and served as curriculum advisor and lecturer with Rayos Contra Cancer. Within AAPM, Dr. Hirata volunteers on numerous

groups including TG263U1 and the IHE-RO Planning Committee as well serves as Vice Chair of the MPLA Community Subcommittee. She is an advocate for developing leadership skills, developed the framework for the MPLA Leadership Foundations Cohorts, and lead cohorts for the last two years. Her research interests include cardiac radioablation, quality and safety improvements, and clinical implementation of innovative treatment techniques. Dr. Hirata is a champion for medical physics education, mentorship, and improving the efficiency, safety, and effectiveness of clinical physics practices.

#### Chia-Ho Hua, PhD



Dr. Chia-ho Hua is the Director of Medical Physics Research in the Department of Radiation Oncology at St. Jude Children's Research

Hospital. He received his PhD in Biomedical Engineering from the University of Michigan and completed both his postdoc and residency at Memorial Sloan-Kettering Cancer Center. Dr. Hua has devoted his career to advancing pediatric radiotherapy by publishing key papers on

normal tissue dose-volume tolerance and advanced imaging which influenced the practice of pediatric radiation oncoloay. He also serves as the Physics Committee Chair of the Radiation Oncology Discipline of Children's Oncology Group (COG), Vice-Chair of the St. Jude Radiation Safety Committee, Associate Editor of Frontiers in Oncology, and as a member of the Steering Committee of the PENTEC consortium which develops auantitative evidence-based dose-volume guidelines to inform treatment planning and improve outcomes for childhood cancer. survivors. Dr. Hua has contributed to AAPM by participating in committees and task groups, organizing many education sessions, and presenting as an invited speaker at AAPM Annual Meetinas.

#### Xun Jia, PhD



Dr. Xun Jia is a Professor and Chief of the Medical Physics Division in the Department of Radiation Oncology and Molecular

Radiation Sciences at the Johns Hopkins University. He oversees a team of 28 faculty and staff medical physicists who provide support to radiotherapy practices at six different sites, including a proton therapy center. Dr. Jia earned his PhD in Physics from UCLA in 2009 and subsequently pursued postdoctoral training in Medical Physics at UCSD. His research focused on GPU-based high-performance computing, cone-beam CT reconstruction. deep-learning-based intelligent treatment planning, and preclinical radiation technology development. He has authored over 160 peer-reviewed manuscripts and has been awarded grants from federal, state, industrial, and private funding agencies, including multiple R01s. Dr. Jia serves as a Senior Associate Editor of Medical Physics and an Executive Editorial Board member of Physics in Medicine and Biology. He received the AAPM John S. Laughlin Young Scientist Award in 2017.

#### Mary Ann Keenan, DMP



Dr. Mary Ann
Keenan is a
Vanderbilt
University School
of Medicine
faculty
member in the
Department
of Radiology

and a clinical Diagnostic Medical

Physicist at Vanderbilt University Medical Center. Dr. Keenan started her medical physics journey later in life, finishing her undergraduate degree at age 40 and continuing her graduate education at Vanderbilt as a single working mother of three. She has served on many societal committees and writing groups, most recently as the Diagnostic Vice-Chair for the AAPM Medical Physics Practice Guidelines Subcommittee. She is also very active within the American College of Radiology, currently serving as Chair of the Committee on Technical Standards and Practice Parameters for Medical Physics. Dr. Keenan was an integral part of the development, launch, and support of the first CAMPEP-approved Doctorate of Medical Physics program where she continues to have an active role

#### Haibo Lin, PhD



Dr. Haibo Lin is an Associate Research Professor and Director of Medical Physics at the New York Proton Center and an adjunct

faculty member at the Memorial Sloan Kettering Cancer Center and Albert Einstein School of Medicine. He received his Master's in Medical Physics and PhD in Physics from the University of Missouri in 2009. Upon graduation, he started medical physics residency training at the University of Pennsylvania (UPenn) and later served as Chief Resident. Before ioining New York Proton Center in January 2018, Dr. Lin was the lead proton physicist at **UPenn's Roberts Proton Therapy** Center. His professional interests are proton therapy radiation dosimetry, treatment planning, motion management, and developing new proton treatment techniques such as FLASH RT and SFRT (Spatially fractionated radiotherapy). In addition, he is an active member of various professional societies, including AAPM, ASTRO, PTCOG, ABR, RAMPS, RSS, NRG, ECOG, and IAFA.

#### Wei Liu, PhD



Dr. Wei Liu is Professor of Radiation Oncology and Research Director of the Division of Medical Physics at the

Mayo Clinic in Arizona. He was the recipient of the AAPM John S. Laughlin Young Scientist Award in 2019 and the NIH/NCI Early Career Award (K25) in 2012. The scientific term "Liu Limit" was named after him for his work in Plasma Astrophysics. He has 103 (51 as corresponding or first-authored) peer-reviewed journal publications. 10 United States patents, one European patent, 18 disclosures, and three book chapters. Currently, he serves as Co-Chair of the Particle Therapy Co-Operative Group Thoracic Subcommittee. He is an Associate Editor of both the International Journal of Radiation Oncology • Biology • Physics and Medical Physics, and an editorial board member of Physics in Medicine & Biology. He also serves in the Imaging Technology Development Study Section and Special Emphasis Panel of NIH and as a reviewer for the Netherlands Organisation for Scientific Research (NWO/ZonMw) and KWF Kankerbestriidina (Dutch Cancer Society).

#### K. Sunshine Osterman, PhD



Dr. Sunshine
Osterman
is a Clinical
Associate
Professor and
the Medical
Physics
Residency
Director in

the Department of Radiation Oncology at NYU Langone Health. She received a PhD in Biomedical Engineering from Thayer School of Engineering, Dartmouth College and was board-certified by the American Board of Radioloav in Therapeutic Medical Physics in 2006. Dr. Osterman plays a leadership role in the clinical and educational programs at NYU, with her clinical areas of expertise including CT simulation, brachytherapy, treatment planning, and Gamma Knife radiosuraery. Dr. Osterman coauthored the current AAPM Code of Ethics and she has presented as an AAPM-invited speaker at chapter meetings and at the Annual Meeting. Dr. Osterman now serves as Vice Chair of Ethics and is passionate in her work around EDI, both within the Diversity and Inclusion Subcommittee mentoring and supporting the DREAM Fellowship - and as Vice Chair of the Sexual and Gender Minority Subcommittee.

#### Brian Pogue, PhD



Dr. Brian W.
Pogue is the
Chair of the
Department of
Medical Physics
at the University
of WisconsinMadison and
Professor of

Medical Physics, Radiology and

Human Oncology, and BME. Dr. Pogue is a Fellow of Optica, SPIE, the American Institute for Medical and Biological Engineering, and the National Academy of Inventors, and is the Editor-in-Chief of the Journal of Biomedical Optics. Dr. Poque's research is at the intersection of medical physics and biomedical engineering. Specific translational effort has gone into Cherenkov imaging cameras that allow visualization of radiation dose in humans undergoing radiotherapy and in molecular sensing with optical probes that allow surgical intervention based upon function as well as structure. This work has led to more than 475 peerreviewed papers and 12 United States patents - with another 29 pending - as well as over \$50 million in NIH funding.

#### Thomas Purdie, PhD



Dr. Thomas G. Purdie completed his PhD in Medical Biophysics at Western University in 2002 and then completed a

medical physics residency and research fellowship at the Princess Margaret Cancer Centre. Dr. Purdie joined Princess Margaret Cancer Centre as Staff Medical Physicist in 2005 and became board certified through the Canadian College of Physicists in Medicine in 2017. Dr. Purdie is an Associate Professor in the Departments of Radiation Oncology and Medical Biophysics at the University of Toronto and is a Clinician Scientist at the Princess Margaret Cancer Research Institute.

Dr. Purdie is actively involved in AAPM activities including contributions to task groups, committees, and continuing education. He also served as the first Senior Editor in medical physics for artificial intelligence for the International Journal of Radiation Oncology • Biology • Physics. Dr. Purdie has been developing machine learning methods applied to radiation oncology since 2012 and has patented and commercialized technologies in automated treatment planning and machine learning.

#### Ingrid Reiser, PhD



Dr. Ingrid Reiser is an Associate Professor in the Department of Radiology at the University of Chicago. She received a Master's

in Physics from the University of

Kaiserslautern in Germany and a PhD in Physics from Kansas State University. She is certified by the American Board of Radiology in diagnostic medical physics. She has numerous publications on breast tomosynthesis and has coedited a book on tomosynthesis imagina. She is an active member of AAPM and has co-led TG 305. which recently published a report on standards for vendor-neutral reject analysis in radioaraphy. She currently leads the X-ray Breast Imaging Subcommittee and, in 2019, she co-directed the AAPM Summer School on practical medical image analysis. During the COVID-19 pandemic, she pioneered the AAPM Multi-Institutional Journal Clubs, which were attended by 131 residents from 46 residency programs in the past year, and has been Chair of the Annual Meetina Subcommittee since late 2020.

#### George Sgouros, PhD



Dr. George Sgouros is Professor and Director of the Radiological Physics Division in the Department of Radiology

at the Johns Hopkins University, School of Medicine. He is author on more than 200 peerreviewed articles, several book chapters, and numerous review articles. He is recipient of the SNMMI Saul Hertz Award for outstanding achievements and contributions in radionuclide therapy. He is a member of the Medical Internal Radionuclide Dose (MIRD) Committee of the Society of Nuclear Medicine and Molecular Imaging (SNMMI), which he chaired from 2008 to 2019. He has chaired a Dosimetry & Radiobiology Panel at a DOE alpha-emitters workshop and also an ICRU report committee for ICRU guidance document No. 96. Dr. Sgouros is a former chair (2015-2017) of the NIH study section on Radiation Therapeutics and Biology (RTB). Dr. Sgouros is also founder and principal of Rapid, a dosimetry and imaging services and software products start-up in support of radiopharmaceutical therapy.

#### **Emilie Soisson, PhD**



Dr. Emilie Soisson is the Assistant Chief for Therapy Physics at the University of Vermont Medical Center in Burlington, VT. Dr. Soisson

holds a faculty position there as well as an adjunct faculty position at McGill University. Dr. Soisson started her career in oncology as a medical dosimetrist at the Massachusetts General Hospital and went on to earn a PhD in medical physics from the University of Wisconsin, where she was involved with the clinical development of helical tomotherapy. After obtaining her PhD, Dr. Soisson worked at McGill University in Canada and is a Canadian College of Physicists in Medicine Fellow. Dr. Soisson has held positions on the boards of AAPM, the Canadian Organization of Medical Physicists, the Medical Dosimetrist Certification Board, and the New England Chapter of the AAPM (NEAAPM). She has been involved in AAPM's international activities, is a member of the AAPM Strategic Planning Committee, and serves as chair of the current AAPM Ad Hoc Advisory Committee on Administrative Proficiency. Dr. Soisson would like to thank the NFAAPM for this nomination and their support.

#### Raja Subramaniam, PhD



Dr. Raja
Subramaniam
is the Chief
Medical Physicist
in the Radiology
Department
at Mount Sinai
Medical Center
in New York

City. He also has an appointment as Professor of Radiology at the Icahn School of Medicine at Mount Sinai Medical Center, Dr. Subramaniam received his PhD in Chemical Physics from the University of Maryland at College Park. He completed a postdoctoral fellowship in Medical Physics at the Johns Hopkins University, School of Medicine and is board certified by the American Board of Radioloav in Diagnostic Radiologic Physics and Medical Nuclear Physics. As an active member of the AAPM Physics Education Task Force Subcommittee, Dr. Subramaniam has been part of the RSNA/ AAPM online physics module as an author and reviewer since its inception. He has served in the past as a member of several AAPM committees and working groups and currently serves as the Vice-Chair of AAPM Task Group 380.

#### Michelle Svatos, PhD



Dr. Michelle Svatos received her PhD in Medical Physics from the University of Wisconsin– Madison. Over the course of

her Radiation Oncology career, she worked at Lawrence Livermore National Laboratory, the UCSF Medical Center, and multinational

Fortune 500 companies such as Siemens and Varian and has also been heavily involved in numerous start-up executive roles. Dr. Svatos was co-founder of Topas MC and an early CEO of Celestial Oncology and TibaRay and is currently leading the Global Research and Development at Palette Life Sciences. She was previously Product Manager of TrueBeam in its formative stages which became Varian's most successful product for cancer treatment worldwide. treating over 60,000 patients daily. She invented TrueBeam Developer Mode, with its Developer Community and Workshops, holds more than 18 patents, and has coauthored over 20 peer-reviewed papers. She is an Adjunct Professor of Medical Physics at the University of Wisconsin-Madison and Dalhousie University in Canada. Dr. Svatos enjoys consulting for a variety of creative medical device companies, specializing in early-stage start-ups in radiation oncology and radiology.

#### Yevgeniy Vinogradskiy, PhD



Dr. Yevgeniy Vinogradskiy is Professor and Director of Medical Physics in the Department of Radiation Oncology and Vice-Chair of Radiation Oncology at Thomas Jefferson University. Dr. Vinogradskiy has been successful in securing NIH/ NCI grants totaling over \$5 million which has enabled him to lead two multi-institutional prospective clinical trials which have enrolled over 150 luna cancer patients. Dr. Vinogradskiy currently serves as Chair of the Working Group on Lung Function Imaging in Radiation Therapy, Chair of the AAPM Task Group on Multi-lesion Stereotactic Radiosurgery, and is the former Chair of the AAPM Radiation Dosimetry and Treatment Plannina Subcommittee. Dr. Vinogradskiy has mentored more than 10 trainees, including post-doctoral fellows, medical and medical physics residents, and masters and PhD students.

#### Kevin Wunderle, PhD



Dr. Kevin
Wunderle is a
board-certified
diagnostic
medical
physicist at
the Cleveland
Clinic and
an Associate

Professor of Radiology at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. He completed his Master's degree in Physics at Cleveland State University and PhD in Medical Physics at Wayne State University. Dr. Wunderle has served AAPM in numerous roles, including Task Groups, Science Council, and presidential ad-hoc Committees. Currently, he serves as Chair of the Radiography and Fluoroscopy Subcommittee and Vice Chair of the Imaaina Physics Committee. Dr. Wunderle also serves in various roles with the American College of Radiology, Intersocietal Accreditation Commission. International Commission on Radiological Protection, International Electrotechnical Commission, and National Council on Radiation Protection and Measurements. He has published a number of peer-reviewed articles and co-authored several book chapters related to fluoroscopic imaging and radiation protection. He enjoys teaching both imaging and radiation physics to physicians and physicists at Cleveland Clinic and has taught in the AAPM Diagnostic Review Course for the past six years.

#### Kai Yang, PhD



Dr. Kai Yang earned his Bachelor's and Master's degrees in Engineering Physics from Tsinghua University, China and his PhD in Biomedical Engineering from the University of California, Davis in 2007. He is currently a diagnostic medical physicist and Assistant Professor of Radiology at Massachusetts General Hospital, Harvard Medical School. Prior to his current appointment at MGH, Dr. Yana held faculty positions at UC Davis and the University of Oklahoma. With more than 77 peer-reviewed publications and three book chapters, Dr. Yang's research interests include cone beam CT. breast imaging, photon counting, scatter imaging, quantitative image analysis, image guidance for surgical and interventional procedures, and automated x-ray shielding methods. In addition to his service to AAPM, Dr. Yana has been active in numerous professional societies includina the Radiological Society of North America, American Board of Radiology, DICOM, and the North American Chinese Medical Physicists Association. Within AAPM, Dr. Yang is a member of the CT Subcommittee, Breast Imaaina Subcommittee, MOC Subcommittee, Working Group on DICOM Coordination, and Annual Meeting Work Group as the Imaging Education Program Director.

#### Wensha Yang, PhD



Dr. Wensha Yang is an Associate Professor of Radiation Oncology at the University of California, San Francisco. She obtained her

PhD in Chemistry at the University of Wisconsin Madison and completed her Medical Physics training at the University of Virginia in 2010. With more than 60 peerreviewed publications, Dr. Yang has contributed to several areas including nanomaterial synthesis for radiation therapy applications, MR-quided radiation therapy, and treatment outcome prediction. She is a principal investigator or multiple principal investigator on four NIH R grants, including an RO3, two R21, and one R01. She is also a standing member of the NIH Imaging Technology Development study section. Dr. Yang is an active participant on AAPM and ASTRO committees, most notably as an Associate Editor for both Medical Physics and the Journal of Applied Clinical Medical Physics, a member of the AAPM Research Committee. and co-chair of the ASTRO Annual Meeting physics track. Outside work, Dr. Yang is a mother to two wonderful airls and enjoys traveling with her family.

#### JOHN S. LAUGHLIN EARLY-CAREER SCIENTIST AWARD

This award recognizes outstanding scientific achievement in medical physics for an early-career scientist member of AAPM. The award will usually be given to a member who has been engaged in a medical physics career for fewer than 10 years on December 31 of the year of nomination, and who has been an AAPM member (student, resident, junior or full) for at least five years.

#### Hao Gao, PhD



Dr. Hao Gao received his undergraduate degree in Astrophysics from the University of Science & Technology of China in 2004 followed by his Master's degree in Medical Physics from the University of California at Irvine in 2007 supervised by Drs. Orhan Nalcioglu and Gultekin Gulsen on diffuse optical imaging, MRI, and CT. Dr. Gao received his PhD in Computational Mathematics from University of California at Irvine in 2010, supervised by Dr. Hongkai

Zhao, on PDE-based forward modeling and optimization based inverse problem methods followed by postdoctoral training at the University of California Los Angeles, supervised by Dr. Stanley Osher, on optimization algorithms for compressive sensing with a NIH R21 award. He began as a tenure-track Assistant Professor jointly in both the Department of Mathematics & Computer Science and Department of Radiology & Imagina Sciences at Emory University in 2012, then was recruited as a tenured full Professor by the School of Biomedical Engineering at Shanghai Jiao Tong University in 2013, receiving Qiu Shi Outstanding Young Scholars Award and several major research grants. In 2016, he received medical physics residency training at Duke University and returned to Emory University in the Department of Radiation Oncology as an Assistant Professor after a residency with Varian research funding. Currently, he is a tenured Associate Professor and Director of Physics Research at the University of Kansas Medical Center. His team is supported primarily by a NIH R37 MERIT grant, a NIH R01 grant, and a University of Kansas Cancer Center physicist-scientist recruiting grant, for the development of nextgeneration imaging and radiation therapy modalities for cancer diagnosis and treatment, including FLASH and SFRT, with research awards such as the PTCOG 2021 Michael Goitein Best Abstract Award in Physics and the ASTRO 2022 Annual Meeting Basic Transitional Award (Senior - Physics).

## EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD RECIPIENTS

1996: Arnold Feldman 1997: Robert O. Gorson

1998: John Hale

Jon H. Trueblood

Kenneth A. Wright

**1999:** Perry Sprawls

Joe. P Windham

**2000:** William F. Hanson Mary L. Meurk

2002: Amos Norman

**2003:** Stewart C. Bushong

2003: Radhe Mohan

**2004:** Donald E. Herbert

2006: Azam Niroomand-Rad2007: Lawrence N. Rothenberg

Marilyn Stovall

**2008:** James M. Galvin Kenneth R. Kase

**2009:** James A. Deye Lawrence E. Reinstein Raymond L. Tanner

**2010:** Joel E. Gray Martin S. Weinhous

2012: Charles A. Mistretta Edward S. Sternick Kenneth N. Vanek 2013: Caridad Borras Norbert J. Pelc George Starkschall

2014: Howard Ira Amols

Bruce H. Curran

Edward Lee Nickoloff

2015: Larry A. DeWerd

Kunio Doi

Melissa Carol Martin

2016: Wendell R. Lutz Robert J. Pizzutiello Michael V. Yester

**2017:** G. Donald Frey John W. Wong

**2018:** Jerry D. Allison Frank J. Bova

**2019:** James C. Chu Ellen D. Yorke

**2020:** Frederic Fahey X. George Xu

**2022:** Indra Das Martin Yaffe

**2023:** M. Mahesh Lei Xing

#### EDITH H. QUIMBY LIFETIME ACHIEVEMENT AWARD

This award recognizes AAPM members whose careers have been notable based on their outstanding achievements.

#### M. Mahesh, MS, PhD, FAAPM, FACR, FACMP, FSCCT, FIOMP



M. Mahesh is Professor of Radiology and Cardiology at the Johns Hopkins University School of Medicine and Chair of the Radiation Control Committee for Johns Hopkins Health Systems.

Dr. Mahesh is board certified by the American Board of Radiology and is a member of the Radiation Control Advisory Board for the state of Maryland. His research interests are in medical imaging, particularly in the areas of computed tomography, interventional

fluoroscopy, and digital mammography. In addition, he has broad experience in medical imaging physics and radiation safety. Dr. Mahesh strives to enhance radiation risk communications with patients, the public, and the media.

Dr. Mahesh has been the Associate Editor for the Journal of the American College of Radiology since 2007. He is serving as a member of the Board of Chancellors and as Chair of the Commission of Physics for the American College of Radiology (ACR) since 2016. He served as the AAPM Treasurer as well as a member of the AAPM Board of Directors from 2016 to 2021 and served as first Vice-President of the Radiological Society of North America. He serves as subject matter expert to the United Nations-International Atomic Energy Agency also serving as the national contact person of the United States. He is also a member of a small group of experts on medical exposure for the United Nation Scientific Committee on Effects of Atomic Radiation. Dr. Mahesh was the first medical physicist to serve as President of the Maryland Radiological Society and is the only medical physicist to have served on the board of the Society of Cardiovascular Computed Tomography.

Dr. Mahesh has published more than 150 peer-reviewed publications and given over 110 international talks and several grand rounds. Dr. Mahesh is the author of the textbook "MDCT Physics: The Basics – Technology, Image Quality and Radiation Dose", which has been translated into Japanese.

Dr. Mahesh is a Fellow of AAPM (2007) as well as ACR (2009), the American College of Medical Physics (2011), SCCT (2011), and IOMP (2019).

#### Lei Xing, PhD



Dr. Lei Xing is the Jacob Haimson & Sarah S. Donaldson Professor and Director of the Medical Physics Division of the Radiation Oncology Department at the Stanford University School of Medicine. He also holds affiliate faculty positions in the Department of Electrical Engineering, Biomedical Informatics, Bio-X, and the Molecular Imaging Program at Stanford (MIPS). Dr. Xing obtained his PhD in Physics from the Johns Hopkins University and received his Medical Physics

training at the University of Chicago. His research has been focused on AI in medicine, medical imaging, treatment planning, image-guided interventions, and applications of molecular imaging in radiation oncology, making unique and significant contributions to each of these areas. Dr. Xing is the author of more than 400 peer-reviewed publications. He is an inventor or co-inventor on many issued and pending patents as well as a principal investigator or co-investigator on numerous NIH, DOD, NSF, RSNA, Komen, ACS, and corporate grants. He is a Fellow of AAPM as well as of the American Institute for Medical and Biological Engineering.

#### AAPM LIFETIME ACHIEVEMENT AWARD

This award serves as recognition for the recipient's unwavering commitment, exceptional achievements, and lasting influence on the Association.

#### Angela R. Keyser



Mrs. Keyser was the first employee hired in the fall of 1993 by previous Executive Director Sal Trofi when AAPM moved headquarters operations from New York City to College Park, Maryland. First serving as the Director of Meetings and Programs, Mrs. Keyser was promoted to Deputy Executive Director in 1998 and then assumed the Executive Director's position in 2004 upon Mr. Trofi's retirement. During the ensuing years, AAPM has experienced tremendous growth in

membership and volunteer engagement. Accomplishments of particular note include the re-building of the AAPM HQ team in Maryland, numerous technology advances, many successful AAPM meetings, the purchase, renovation and relocation to the current HQ building in Alexandria, Virginia, and leading HQ operations during the time of tumultuous change brought on by the COVID-19 pandemic.

Mrs. Keyser holds a Bachelor of Arts in Government and Politics from the University of Maryland – College Park. Prior to joining AAPM, she worked for the American Waterways Operators and the National Society of Professional Engineers. During her career, Mrs. Keyser served on the Board of Directors of the American Institute of Physics, the Council of Engineering and Scientific Society Executives, and the King Street Exchange Condominium Association, where AAPM is headquartered. She also served on the American Physical Society Insurance Trust Board of Trustees, the Tourisme Montreal Meetings Advisory Board, and many other committees supporting the non-profit association profession.

Mrs. Keyser notes her greatest joys are being the proud wife to her husband, Jimmy, mother to their daughter Kaitlyn and son Korey and having the honor of serving alongside the AAPM HQ team and countless dedicated volunteers for three decades. Upon retirement at the end of 2023, Mrs. Keyser and Jimmy plan to head out in their motorhome to travel the country.

#### WILLIAM D. COOLIDGE GOLD MEDAL RECIPIENTS

1972: William D. Coolidge

1973: Robert J. Shalek

1974: John S. Laughlin

1975: Marvin M. D. Williams

1976: Harold E. Johns

1977: Edith E. Quimby

1978: Lawrence H. Lanzi

1979: Herbert M. Parker

1980: John R. Cameron

1981: James G. Kereiakes

1982: Gail D. Adams

1983: Edward W. Webster

1984: Robley D. Evans

**1985:** Jack S. Krohmer

1986: Warren K. Sinclair

1987: Gordon L. Brownwell

1988: John R. Cunningham

1989: William R. Hendee

1990: Peter R. Almond

1991: Moses A. Greenfield

**1992:** Nagalingam Suntharalingam

1993: Colin G. Orton

**1994:** F. Herb Attix

1995: Robert Loevinger

1996: Leonard Stanton

1997: James A. Purdy

1998: Bengt E. Bjarngard

1999: Faiz M. Khan

2000: Lowell L. Anderson

2001: Ravinder Nath

2002: Bhudatt R. Paliwal

2003: Kenneth R. Hogstrom

2004: C. Clifton Ling

2005: Gary T. Barnes

2006: Ervin B. Podgorsak

2007: Arthur L. Boyer

2008: Paul L. Carson

2009: Willi A Kalender

2010: David W. O. Rogers

2011: Richard L. Morin

2012: Stephen R. Thomas

2013: Benedick A. Fragss

2014: Thomas Rockwell Mackie

2015: Maryellen L. Giger

2016: Paul M. Del uca

2017: Jatinder R. Palta

2018: Radhe Mohan

2019: John Boone

2020: Randall Ten Haken

2022: Jacob Van Dyk

2023: M. Saiful Hug

#### 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.

#### M. Saiful Huq, PhD, FAAMP, FInstP



M. Saiful Huq, PhD was born in Bangladesh to a middleclass family that emphasized the importance of making an impact on other's lives through public service. It was this upbringing combined with his childhood love for physics that shaped his career. He received his B.Sc. (1974) and M.Sc. (1976) in Physics from Dhaka University, then immigrated to the United States to complete his MS in Physics (1979) and PhD in Atomic

and Molecular Physics (1984) from William & Mary. Saiful then completed two postdoctoral fellowships before stumbling into medical physics during a third postdoctoral fellowship at Yale New Haven Hospital (1988-1990). He realized this was the perfect avenue to combine his love for physics with the ability to improve human health around the world.

Saiful started his career at Thomas Jefferson University in 1990 focused on the triad mission of patient care, teaching, and research. He joined the UPMC Hillman Cancer Center in 2004 where he is currently Professor of Radiation Oncology and Director of the Medical Physics Division. In this role he oversees medical physics operations for 24 cancer centers in the greater Pittsburgh area, and provides guidance to four cancer centers in Ireland and Italy. He is certified by the American Board of Radiology in Therapeutic Radiological Physics, has over 170 peer-reviewed publications, and has given over 225 invited presentations domestically and globally. He established the CAMPEP accredited medical physics residency program at UPMC and has mentored 26 students, residents, and postdocs.

Saiful's research is focused on radiation metrology, dosimetry, and quality management. He collaborated with pioneers in the field to introduce new external beam dosimetry protocols (TG51) and actively contributed to international codes of practice for beam calibration such as IAEA TRS398. Recognizing a need to harmonize small-field dosimetry for stereotactic radiosurgery and stereotactic body radiation therapy treatments across

the world, he spearheaded a collaboration between IAEA and AAPM leading to the publication of IAEA-AAPM TRS483 in 2017.

Saiful has been a member of AAPM for over 30 years and has served in many capacities including Board Member-at-Large (2012-2014), President (2020), Chair of the Board (2021), Chair of Therapy Physics Committee (2012-2017), Vice-Chair of Science Council (2012-2017), co-director of two AAPM Summer Schools (Quality and Safety in Radiotherapy and Small Field Dosimetry), and Chair of the Calibration Laboratory Accreditation Subcommittee (2001-2005). He has served on nine Task Groups and Reports, including as Chair of TG-100, a document that represents a paradigm shift from how quality management is practiced today and forms the basis for how QM and risk assessment will continue to be practiced at radiotherapy centers across the world.

Saiful is passionate about the involvement of medical physicists on a global scale to improve cancer care. He has served as a consultant to IAEA for over two decades, the longest term any individual has served, where he has made significant contributions and co-authored many IAEA documents including important guidance for low- and middle- income countries to transition from 2D radiotherapy to 3D conformal and IMRT. As President of AAPM he led the formation of the International Council to facilitate the engagement of AAPM medical physicists in global health collaborations, reaching beyond its traditional and historic role to impact cancer care ground the world.

# Congratulations

TO ALL 2023 AWARD RECIPIENTS!

American Association of Physicists in Medicine 1631 Prince Street | Alexandria, VA 22314 www.aapm.org

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