



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE

IMPROVING HEALTH
THROUGH MEDICAL PHYSICS

AAPM NEWSLETTER

November/December 2024 | Volume 49, No. 6



Special Interest Feature:

Women's Professional Subcommittee

IN THIS ISSUE:

- ▶ Chair of the Board's Report
- ▶ Legislative and Regulatory Affairs Report
- ▶ International Council Reports
- ▶ Sexual and Gender Minority Subcommittee Report
- ▶ APS GMED Update
- ▶ Update from the AAPM Working Group on Medical Errors in Brachytherapy

...and more!

SAVE *the* DATES



2025 AAPM MEETINGS

MARCH/APRIL

3/29–4/1 Spring Clinical Meeting
Henderson, NV

JUNE

19–24 Summer School: *Clinical MR Physics: State-of-the-Art Practice*
Denver, CO

JULY

27–30 67th Annual Meeting & Exhibition:
Coming Together to Forge Ahead in Medical Physics
Washington, DC

aapm.org



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE



AAPM NEWSLETTER is published by the American Association of Physicists in Medicine on a bi-monthly schedule.
AAPM is located at 1631 Prince Street, Alexandria, VA 22314

TABLE OF CONTENTS

November/December 2024 | Volume 49, No. 6

REPORTS IN THIS ISSUE

- 5 Newsletter Editor's Report
- 7 Chair or the Board's Report
- 11 Executive Director's Report
- 13 Legislative and Regulatory Affairs Report
- 15 Health Policy and Economic Issues Report
- 19 ABR Update
- 21 Updates from ACR HQ
- 23 ASTRO Quality Improvement
- 25 International Council Report #1
- 29 International Council Report #2
- 33 Equity, Diversity, & Inclusion Committee Report
- 35 Special Interest Feature: Women's Professional Subcommittee
 - 35 EDIC Sessions at the 2024 AAPM Annual Meeting
 - 39 AAPM 2024 Women's Luncheon
 - 41 Women in Industry: My Personal Journey
 - 43 Featured Physicist: Maryam Mashayekhi, PhD
 - 45 Mentorship/Sponsorship Topic: Letters to a Pre-Scientist
 - 47 Book Review: *The End of Your Life Book Club* by Will Schwalbe
- 51 Sexual and Gender Minority Subcommittee Report
- 55 AAPM Accessibility Subcommittee Report
- 59 Specialty Meetings in Medical Physics
- 63 APS GMED Update
- 65 Update from IHE-RO
- 66 Update from the AAPM Working Group on Medical Errors in Brachytherapy
- 67 Southern California Chapter Report

EVENTS/ANNOUNCEMENTS

- 6 We Want You! Industry Scientists or Regulatory Physicists
- 10 SCAMP and ICAMP Mentorship Programs
- 12 Upcoming AAPM Webinars
 - Our Condolences
- 20 AAPM 2025 Important Dates
- 28 AAPM Career Services
- 38 2025 AAPM Funding Opportunities
- 44 Call For Editor-in-Chief of the *Journal of Applied Clinical Medical Physics*
- 49 2025 AAPM Spring Clinical Meeting
- 50 AAPM 2025: Coming in July
- 64 AAPM Reception at the 2024 RSNA Meeting
- 69 Warm Season's Greetings!

EDITORIAL BOARD

Jennifer Pursley, PhD, Editor

Assistant Professor
Massachusetts General Hospital
Department of Radiation Oncology
55 Fruit Street
Boston, MA 02114
617-643-8273
newsletter@aapm.org

Eileen Cirino, MS

Irena Dragojevic, PhD

Yanle Hu, PhD

Barbara Lilieholm, MS

Kristen McConnell, PhD

Wei Liu, PhD

Joann Prisciandaro, PhD

Anna Rodrigues, PhD

SUBMISSION INFORMATION

To keep all reports uniform, we kindly request that submissions be made through a [QuestionPro](#) portal.

Questions? Contact [Nancy Vazquez](#)

PUBLISHING SCHEDULE

The AAPM Newsletter is produced bi-monthly.

Next issue: January/February 2025

Submission Deadline: November 29, 2024

Posted Online: Week of January 6, 2025

CORPORATE AFFILIATE ADVERTISING

[Advertising Rates & Deadlines](#)

CONNECT WITH US!



EDITOR'S NOTE

I welcome all readers to send me any suggestions or comments on any of the articles or features to assist me in making the AAPM Newsletter a more effective and engaging publication and to enhance the overall readership experience. Thank you.

INTRODUCING **T3**

X-ray QA Meter

With New Smart
PROFILE
Technology

Compatible with
NEW **AG3** QA Software



Radcal

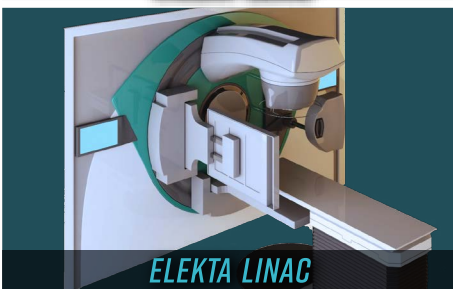
For further details:

Contact us at +1 (626) 357-7921 • sales@radcal.com or www.radcal.com

Visit us at *RSNA, Booth 3714*
12/1-12/4, Chicago, IL



VARIAN LINAC



ELEKTA LINAC

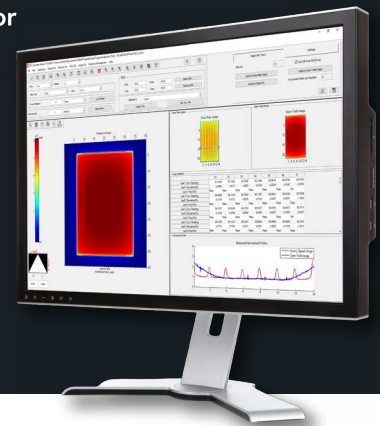


CYBERKNIFE® M6

PERFORM FULLY AUTOMATED MLC QA AND TRACK MLC PERFORMANCE OVER TIME WITH THE **RIT FAMILY OF PRODUCTS**

As part of RIT's comprehensive Machine QA capabilities, RIT software maximizes the accuracy of quality assurance for multi-leaf collimators on any linear accelerator or radiation delivery machine.

Perform leaf speed tests for Varian and Elekta, EPID and generic picket fence tests, Varian RapidArc® (including Halcyon®) tests, Hancock Tests for Elekta machines, the Accuray CyberKnife® M6 MLC test, and several other automated tests. Track and trend MLC performance over time and have confidence that patient treatments are proceeding as planned.



 **CLICK TO VISIT RADIMAGE.COM TODAY TO DEMO
ADVANCED MLC QA SOFTWARE SOLUTIONS FROM RIT**



RIT® RADIOLOGICAL IMAGING TECHNOLOGY, INC.
sales@radimage.com | 1(719)590-1077

© 2024, Radiological Imaging Technology, Inc.

RapidArc® and Halcyon are registered trademarks of Varian Medical Systems, Inc. CyberKnife® is a registered trademark of Accuray, Inc.

Preparing to Say Goodbye to 2024

NEWSLETTER EDITOR'S REPORT

Welcome to the final edition of the 2024 AAPM Newsletter, the November/December issue, and the end of my first three-year term as Newsletter Editor. I'm thrilled to stay on for a second term, and I'm looking forward to seeing AAPM change and grow in that time and sharing its news with members through the Newsletter. Happiest of holidays to all and I wish everyone a great start to 2025.

In this issue of the Newsletter, Chair of the Board of Directors **Ehsan Samei** reflects on the humanness of medical physics in his final report as part of the AAPM Presidential line. The Special Interest Group for this issue is the Women's Professional Subcommittee (**WPSC**), with numerous articles including reflections from the Equity, Diversity, and Inclusion Committee (**EDIC**) on the AAPM Annual Meeting. In particular, check out a summary of all EDIC Annual Meeting sessions from **Dominic Maes** and an overview of the WPSC Luncheon from **Chelsea Page-Robertson**. This issue also contains news relating to brachytherapy, with IHE-RO reporting on its publication of content standards for brachytherapy plan and delivery record files and an announcement of upcoming case studies from the Working Group on Medical Errors in Brachytherapy. You'll find these reports and many more in this issue.

We hope every AAPM member finds something of interest in the Newsletter. Our goal is to have the AAPM Newsletter content reflect current topics of interest and importance in medical physics. We accept submissions and suggestions from all AAPM members, which can be submitted directly through the link on the [Newsletter](#) page. Please enjoy this issue of the Newsletter and send us your feedback and ideas for the future. As always, please share the Newsletter articles you enjoy with your social media network. Best wishes for the holidays and we'll see you next year! ■



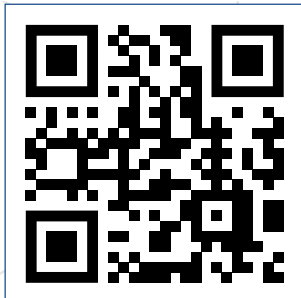
Jennifer Pursley, PhD
Massachusetts General Hospital

WE WANT
YOU!

INDUSTRY SCIENTISTS or REGULATORY PHYSICISTS:

VISIT

aapm.org/memb
for more details.



- As an Industry Scientist or Regulatory Physicist,
YOU CAN JOIN AAPM.

Individuals eligible to be an AAPM Full Member possess an earned graduate degree in the Physical or Biological Sciences, Computer Sciences, Mathematical Sciences, or Engineering from a college, university or program accredited by one of the organizations recognized by the Council on Higher Education Accreditation (or its successors), or an equivalent foreign degree. Applicants should also be engaged in clinical care, professional, research, or academic activity related to applications of physics in medicine and biology.

- As an Industry Scientist or Regulatory Physicist,
YOU CAN VOLUNTEER.

AAPM Full Members in good standing are eligible for voting appointments on Committees, Subcommittees, Working Groups, and Task Groups. Many AAPM groups could benefit greatly from the unique perspective an industry scientist or regulatory physicist offers. Explore current volunteer opportunities at w3.aapm.org/ads/committee_classifieds/classifieds.php (member login required).

- As an Industry Scientist or Regulatory Physicist,
YOU HAVE OPTIONS.

If the Full member class doesn't apply, consider the General, Associate, or Affiliate member classes, tailored to suit your career stage and qualifications.

The Humanness of Medical Physics

CHAIR OF THE BOARD'S REPORT

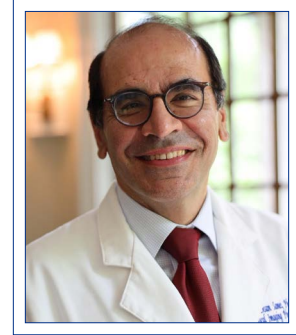
AAPM recently devised a new four-prong strategic plan, an achievement of which I am very proud, thanks to our Strategic Planning Committee (SPC). That plan includes:

- Sustaining, making consistent, and advocating for the current contributions of medical physics to human health, while also championing the role of physics in new clinical spaces and modalities¹,
- Preparing medical physics as a discipline and physicists as practitioners to take full advantage of new computational technologies, and serve essential roles in associated research and clinical applications²,
- Improving equitable access to health care by addressing the growth, development, and training of the medical physics workforce³, and
- Enhancing AAPM's operational sustainability by transforming its operations and governance to enable members to focus on the science and discipline of medical physics, empowering staff to lead association operations, and positioning AAPM financially to support the next generation of physicists in medicine.

I am so very delighted to see this articulate depiction of the desired trajectory of our Association. Will we succeed? Maybe so – but the suggestion of some of these ideas has been present in previous strategic plans as well. Dreaming ideas is always easier than implementing them. How do we approach their implementation? I submit to you that the effective implementation of these well-articulated ideas rests on the intentional practice of our humanity, a profound resource that can either help or hinder our progression forward.

In the fall of 2022, as the incoming President-Elect of our Association, I wrote an op-ed-style article entitled "Is our Diversity our Undoing?" I was advised not to publish it as my primary column for the Newsletter, as it might further inflame the ongoing verbal battles between some of our members in cyber-space about reproductive rights. So, I "buried" it as a link only accessible through my more "conventional" column. That was a mistake, as I believe the message of that article would have been helpful and relevant, then as well as now, given our continued national polarization, and its echoes in the misjudgments that are so readily voiced across our community today. And working from the foundation of my assertions there, I wish here to take a deeper look at what it means to be a human, and why that should matter in the way we relate to our Association, our strategic plans, our profession, and one another, an argument befitting my final column as a leading officer of our Association.

As physicists, we have a deep connection to theories, laws of nature, and principles. We deal with ideas and hypotheses and design our work into projects and programs. Without such conceptualizations and constructs, we cannot hope to advance our work. They serve a generative function. But what is the essence of worth in our profession and our pursuits? Our models,



Ehsan Samei
Duke University

CHAIR OF THE BOARD'S REPORT, Cont.

our designs, our principles? What gives value to a project or a program? I argue that the foundational asset, the “gold buried” within even the loftiest and most exotic of our technological or thought constructs, is our humanity. The person is the primary net value. Why do I say so? First, because there could not be any technological or thought constructs without us, humans, bringing them forth. That is the reason why a poor investment of our “selves” into a project creates little net value. And second, the net value of these constructs is never appreciated without recognition by humans, whether ourselves or others. That is why when a great project is underappreciated, it brings us such disappointment and causes us to question its value. You could say that what gives a project worth and value is the exercise of our human agency, either as a creator or as an evaluator and beneficiary. This topic was elaborated at the 2023 Presidential Symposium on the interaction of art, science, medicine, and vocation.

So, the first and foremost substance of value in our mental or physical workspace is the person. And that is the reason that humans and their value as patients do and should take center stage in healthcare. One might think this would be obvious given the mandate of a healthcare profession, but sadly, it is not. That is why we now face such an emphasis on the concept of “patient-centered care” in practicing medicine (isn't medicine all about patients anyway?!). Within medical physics, we ourselves have brought forth the moniker of “physics for patients” within the Medical Physics 3.0 initiative to counter the more common but less explicitly stated notions of “physics for machines,” “physics for regulators,” or “physics for compliance.” Given this stated value, the agency of the patient should be given the appropriate priority and space in our healthcare. This push is at the forefront of the advancement of our clinical practice, as it relates to patient-centeredness and effective patient communication in the Medical Physics 3.0 and PCORI grant initiatives.

This is also the reason that humans and their value as collaborators and cooperators in our workspace is central to our work. Just as in the case of patients, the agency of our colleagues must be given the appropriate priority and space. This is really the foundation of the practice of diversity, and why diversity matters. This is why democracy matters. This is why even when we disagree, we cannot

overlook the dignity of the individual we disagree with; they still hold full agency over their convictions. This is why coercion is wrong, and why negotiation and consensus are essential. The centrality of this personal autonomy is the reason why authoritarian governments (from Maoist China, to Islamist Iran, to Putinist Russia), in spite of their might and control over people and society, still seek “confessions” (even fake ones); this demonstrates that the regimes are buttressed by the agency of the person, even if it is coerced.

The centrality of personhood has major implications for how we conduct ourselves within our profession, with our colleagues, and even with ourselves. As far as our profession, we need to recognize that programs and designs by themselves are empty without the dignity bestowed on them by us. The beauty of a technology is not just in how great it is but also in how it was made and by whom, and how great a value it will have for the lives of patients — recalling the very purpose of our profession: the advancement of human health through physics. Likewise, the agency of the patient is central to the care they receive — we must honor that agency to ensure their full ownership. Of course, we also need to bring our expertise to bear, but the privilege of doing so is granted to us by our patients.

The centrality of personhood also has implications for how we treat our colleagues and other health professionals. Arrogance overlooks the value that others can bring to our work, while at the same time also overlooking the reality of the progressive nature of human knowledge: The approximate reality that we know needs refinement by others' perceptions — not that all insights are equally relevant, but better insights can often be attained through broader contributions by the essential value-generators (i.e., humans).

Finally, the centrality of personhood has implications for how we treat ourselves. We, as individual humans, are not slaves to our ideas or programs. Rather, those ideas and programs should be slaves to our personhood. We hold the essential value. We can cause much harm to ourselves, and by extension to others, by placing our creations above ourselves and losing our humanness in the process. In that space, I argue that we need to maintain a balance between our creativity, which stems from our agency as

CHAIR OF THE BOARD'S REPORT, Cont.

creators, and the honoring of our selfhood in that process. In religious terms, we need to recognize our gifts as sub-creators (as J.R.R. Tolkien puts it), but also our limits as creatures — maintaining a balance between creativeness and creatureliness. These are the sources of our dignity and our humility, respectively, and both should shape how we approach our workspace and our self-space.

So, why am I writing all this, instead of about AI, theranostics, digital twins, adaptive therapy, photon-counting, or any of the other glorious advancements of our profession? Why not write about the details of our strategic ideas (with which I can readily fill many pages), the perplexing challenges that medical physicists face, and how we can advance medicine yet further? I do so because we focus on those realities far too often to the detriment of the deep realities that perplex and limit them

all: our “selves.” We take ourselves along on all of our professional and personal journeys.

The fact is that ideas and plans don't come about by themselves, nor do they run by themselves. Their net value is not in themselves, but in us. These ideas only came about and will only advance by the investment of our selves, by our humble commitment to working with one another, by recognizing the agency and dignity of our colleagues, and by recognizing the primary ownership of the patient in their care. So, despite and through all the glorious achievements and potentials of our profession, we must accept that the net value of our medical physics enterprise is found in our humanhood, and that in practicing it, we are just humans caring for humans. Life is precious, make it count. ■

¹<https://www.aapm.org/pubs/newsletter/references/4705PresidentElectSupplemental.pdf>

²<https://mp30.aapm.org/>

³<https://w3.aapm.org/media/releases/AAPMPressRelease-2024FundingAward.pdf>



AAPM Science Council Associates Mentorship Program (SCAMP)

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 the advancement of science within AAPM. SCAMP uses the process of shadowing to integrate the Associate into the scientific activities of the organization.

BOTH selected SCAMP Associates and ICAMP Associates

will participate in the program through the end of the following calendar year. Each Associate will be reimbursed up to \$2000 to cover the costs (travel-related expenses including flight, hotel, and meeting registration) to attend the 2025 Annual Meeting in Washington, DC and the 2026 Annual Meeting in Vancouver, BC.

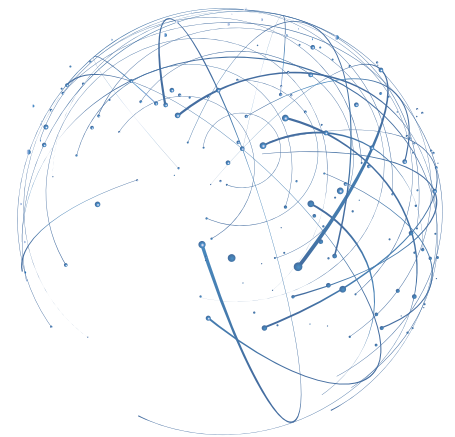
Applications for both programs open on January 13, 2025!

[SCAMP information on how to apply, including eligibility criteria](#)

[ICAMP information on how to apply, including eligibility criteria](#)

AAPM International Council Associates Mentorship Program (ICAMP)

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 global health and international activities within AAPM. ICAMP uses the process of shadowing to integrate the Associates into the International Council and its related internationally focused activities.



Behind the Scenes at AAPM

EXECUTIVE DIRECTOR'S REPORT

Last weekend, I attended a performance of *Emma* at the Clarice Performing Arts Center at the University of Maryland. As I watched, I paid close attention to the staging and stage management — our oldest daughter, Ella, is a senior and works as a carpenter in the scenery shop, so I had a special interest.

The stage crew, in addition to showcasing excellent carpentry, was flawless during the second night of the show. They moved stage elements seamlessly, creating the perfect ambiance and integrating beautifully with the actors' movements, the lighting, and the music. Their work was so smooth that, unless you were actively looking for it, you might not even notice it. This allowed the actors to truly shine. The smoothness came not only from practiced execution but also from the thoughtful planning of the director, the clear instructions given to all the skilled positions on how to achieve that vision, and the training, coaching, and collaboration throughout.

I mention this because it reminds me of the behind-the-scenes work happening at AAPM right now — much like in a theatrical production. Our Councils and their groups are planning activities for next year, the Strategic Planning Committee (SPC) has worked closely with staff on the implementation of our [new strategic plan](#), and soon the Finance Committee (FC) will meet to review and finalize the budget, which will then go to the Board of Directors.

This work — carried out by our dedicated volunteers and staff — often goes unnoticed, especially when everything runs smoothly. But it's vital. As I go through my first year at AAPM, I am incredibly grateful for their commitment and partnership.

In the coming months, you can expect to hear more about how we are advancing our strategic plan and our initiatives for 2025, once the plan and budget are finalized and approved. I'm excited about what lies ahead and the progress we'll make together in the coming year, as we continue to grow and strengthen the field of medical physics and contribute to the advancement of human health. ■



C. David Gammel
Executive Director, AAPM HQ



UPCOMING AAPM WEBINARS 2024

NOVEMBER

7

12:00 – 1:00 PM | ET

**AAPM Webinar Series on
Advances in Medical Physics**

Webinar #39

Present and Future of Photon
Counting CT

19

12:00 – 1:00 PM | ET

**Empowering Women in
Leadership: Strategies for
Overcoming Barriers and
Building a Supportive Network**

DECEMBER

5

12:00 – 1:00 PM | ET

**Understanding 2025 Medicare
Reimbursement**

17

12:00 – 1:00 PM | ET

**Identifying Research
Opportunities for Early Career
and Busy Clinical Physicists**

Webinar #2

How to Fund a Research Idea

Register for these events at
<https://aapm.me/webinars>

Our Condolences

[Kevin I. Kauweloq, PhD](#) • [Willi A. Kalender, PhD, FAAPM](#) • [Alan G. Kepka, PhD](#)
[Wu Liu, PhD](#) • [Ernest L. Madsen, PhD](#) • [Ben J. Mijneer, PhD, FIOMP](#) • [Andrew P. Santoso, PhD](#)
[Ronald V. Scheele, MS](#) • [Guy H. Simmons Jr., PhD, FAAPM](#)
[Andrzej Szechter, PhD](#) • [Robert G. Waggener, PhD, FAAPM, FACMP](#)

Our deepest sympathies go out to the families. We will all feel the loss in the Medical Physics community.

If you have information on the passing of members, please inform HQ ASAP so that these members can be remembered appropriately. We respectfully request the notification via email to: 2024.aapm@aapm.org

(Please include supporting information so that we can take appropriate steps.)

AAPM GRAC Members Attend ASTRO Advocacy Day

LEGISLATIVE & REGULATORY AFFAIRS REPORT

Written on behalf of the AAPM Government and Regulatory Affairs Committee

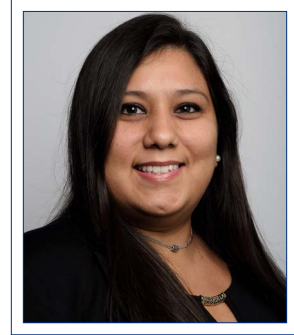
It is critical that medical physicists have a seat at the table when healthcare-related policies or legislation are being discussed. Medical physicists can provide key scientific insights and education on a variety of healthcare service issues and often play a significant role in helping government develop sound science policies and legislation at the federal, state, and local level. In addition to advocating for increased science funding for research and education, medical physicists can serve as guests on congressional commissions or provide expert testimony in congressional hearings. They may also be recruited as expert volunteers to work with federal or state agencies to help collaboratively set new regulatory standards. As medical physicists, we have a variety of useful skills and expertise that can support the mission of the government for the public good. From our work as researchers and technology experts in patient-care settings, to our roles as science communicators and educators, medical physicists can and should play an active role in interfacing with law- and policy- makers.

One way for groups to achieve this is by hosting advocacy days. Also known as Hill Days or Congressional Visit Days, these are events that allow constituents to meet with legislators and their staff to discuss important issues. As medical physicists, such issues could include advocating to increase funding for science research and development, to reform prior authorization practices, or to strengthen education and training programs to create a sustainable workforce.

New in 2025, AAPM will host its first ever Hill Day to build support and awareness for medical physics. This Congressional Visit Day is planned for the day immediately following AAPM's 67th Annual Meeting, which will be held in Washington DC from July 27-30. For those able to stay the extra day — on Thursday July 31 — AAPM will encourage and support members to engage with their congressional offices.

For organizations like AAPM, this event helps provide us with the opportunity to build ongoing, working relationships with lawmakers and helps educate them on issues related to physics in healthcare. It establishes medical physicists as valuable resources to members of Congress and better positions us to shape healthcare and policy decisions for the benefit of the public.

In preparation for this event, AAPM recruited two members of the Government and Regulatory Affairs Committee, **Judith Rivera, PhD** and **Barbara Marquez** as volunteers to attend ASTRO's 2024 Advocacy Day in Washington, DC. This was held last spring, from May 20-21. We were fortunate to represent AAPM and had the pleasure of working alongside many radiation oncology physicians and residents from across the country. We joined in learning about Radiation Oncology-specific legislative issues and discussing them with state



Judith N. Rivera, PhD
Indiana University



Barbara Marquez,
PhD Candidate
MD Anderson

LEGISLATIVE & REGULATORY AFFAIRS REPORT, Cont.

lawmakers and their key staff. The purpose of the trip from a medical physics standpoint was to understand how well-established advocacy day models are run and to identify key competencies that make advocacy days on the Hill a true success.

ASTRO organized their advocacy event over two days.

Day one included training that familiarized attendees with ASTRO legislative priorities via a number of training and education sessions. Sessions included discussions with key Hill staff, a congressional perspective on legislative issues from senior policy advisors and legislative assistants working with current and former administrations, a Federal Issues Briefing delivered by an expert panel of government affairs consultants, as well as trainings to aid in developing communication competencies and professionalism.

Day two was devoted entirely to Capitol Hill meetings with legislators and staff. All attendees were divided into small groups based on the state where individuals practice and then each group attended meetings with legislators and key staff representing their state in both the Senate and House of Representatives.

We summarized the two big picture takeaways from the ASTRO Advocacy Day event, below.

- The first key takeaway is that the primary champions of advocacy day are the attendees. We, as constituents, are responsible for becoming literate in how potential legislation affects patient care and our profession and then using that knowledge to inform the legislative priorities of federal lawmakers and their staff to affect change.

- The second key takeaway is that learning how to effectively communicate with non-experts is critical to success. Physicists by training communicate the importance of a given issue using lots of data and statistics. However, legislators learn best and are fueled by compelling personal stories that exemplify the significance of a specific legislative request or policy issue, backed by evidence as to how that request would affect their specific district or state. Representatives desire that stakeholders have an awareness on that legislator's particular history on the policy or issue at hand. Most importantly, legislators want to hear concrete examples of how that issue will impact their constituency (with brief and compelling data to support this).

Both important points are evident with a simple tune-in to C-SPAN: in the heart of any legislator's speech is the tale of a fellow citizen's need for change and how that compelled the legislator into action. What you will not see is them reading off a list of study citations.

On behalf of the AAPM GRAC and ourselves, we would like to thank ASTRO for allowing us to participate in their advocacy day. We look forward to distilling our insights from ASTRO Advocacy Day 2024 to fellow AAPM members who are interested in becoming advocates for the medical physics community on Capitol Hill. This will be the first of many programming efforts led by **M Mahesh, PhD**, incoming AAPM President, and GRAC leadership to bring our professional representation to legislative affairs in the US. ■



AAPM GRAC members work with ASTRO physicians to advocate for healthcare reform in radiation oncology

AAPM Submits Comments to CMS on 2025 Medicare Proposed Rules

HEALTH POLICY & ECONOMIC ISSUES REPORT

AAPM recently submitted comments to the Centers for Medicare and Medicaid Services (CMS) regarding the 2025 Medicare proposed rules for payments to hospital outpatient departments, ambulatory surgical centers, freestanding cancer centers and physicians.

Hospital Outpatient Prospective Payment System

AAPM provided written comments to CMS regarding the 2025 Hospital Outpatient Prospective Payment System (HOPPS) proposed rule, which provides facility payments to hospital outpatient departments.

Payment for Diagnostic Radiopharmaceuticals:

CMS currently packages several categories of non pass-through drugs, biologicals, and radiopharmaceuticals, regardless of the cost of the products. Payment for drugs, biologicals, and radiopharmaceuticals that function as supplies when used in a diagnostic test or procedure are packaged with the payment for the related procedure or service.

After significant consideration and ongoing engagement from interested parties, CMS is proposing a change to the current policy that packages diagnostic radiopharmaceuticals regardless of their cost. CMS proposes to pay separately for any diagnostic radiopharmaceutical with a per day cost greater than \$630, which is approximately two times the volume weighted average cost amount currently associated with diagnostic radiopharmaceuticals. Any diagnostic radiopharmaceutical with a per day cost below the threshold would continue to be packaged under the current packaging policy. AAPM strongly supports the CMS proposal to unpackage and pay separately for diagnostic radiopharmaceuticals with per day costs exceeding \$630. We believe that the proposed policy will reduce financial barriers and improve access to essential diagnostic tests that utilize radiopharmaceuticals. AAPM also supports the Society of Nuclear Medicine and Molecular Imaging (SNMMI) recommendation that CMS implement a lower threshold of \$550 per day costs, aligning with a 1.75 multiplier, which better identifies high-cost outliers.

New Magnetic Resonance Examination Safety Procedure Codes:

CMS proposed ambulatory payment classification (APC) assignment for new codes effective January 1, 2025 that describe magnetic resonance (MR) examination safety procedures that capture the work involving patients with implanted medical devices that require access to MR diagnostic procedures (CPT codes 76014-76019).



Wendy Smith Fuss, MPH
Health Policy Solutions

For additional information including Medicare rule summaries, 2024 final payments and impacts visit the [AAPM website](#).

HEALTH POLICY & ECONOMIC ISSUES REPORT, Cont.

CPT Code	SI	2025 Proposed APC Group	2025 Proposed Payment
76014 MR safety implant and/or foreign body assessment; initial 15 minutes	S	5731 Level 1 Minor Procedures	\$24.55
76015 MR safety implant and/or foreign body assessment; each additional 30 minutes (add-on code)*	N		\$0.00
76016 MR safety determination	S	5521 Level 1 Imaging without Contrast	\$87.56
76017 MR safety medical physics examination customization	S	5734 Level 4 Minor Procedures	\$127.99
76018 MR safety implant electronics preparation	S	5731 Level 1 Minor Procedures	\$24.55
76019 MR safety implant positioning and/or immobilization	S	5733 Level 3 Minor Procedures	\$59.07

* Add-on codes are typically packaged under the HOPPS with no separate payment

AAPM commented that the proposed APC assignments and their payment do not reflect the facility costs associated with these procedures. Now that it is possible to perform an MR examination in the presence of some of these devices and implants, it is necessary to appropriately reimburse hospitals for the work performed once a potential contraindication is discovered. The American College of Radiology (ACR) believes it is more appropriate to assign the majority of these codes to existing Radiation Therapy APCs than the CMS proposed APC group assignments.

AAPM recommends that CPT codes 76014 and 76016 be assigned to APC 5611 (Level 1 Therapeutic Radiation Treatment Preparation) with status indicator S and a proposed payment rate of \$133.40.

AAPM recommends that CPT codes 76017, 76018, and 76019 be assigned to APC 5612 (Level 2 Therapeutic Radiation Treatment Preparation) with status indicator S and a proposed payment rate of \$369.19. Procedure codes 7XX03, 7XX04, and 7XX05 require additional staff time, MR room time and clinical resources for planning, preparation, and patient positioning.

Physician Fee Schedule

AAPM also provided written comments to CMS regarding the 2025 Medicare Physician Fee Schedule (MPFS) proposed rule, which impacts payments to physicians and freestanding cancer centers.

CMS is proposing payment reductions for the majority of radiation oncology services due to a significant 2.8 percent decrease to the conversion factor effective January 1, 2025. AAPM cited concerns regarding continued payment reductions to radiation oncology that exceed 25 percent over the past decade. AAPM urges CMS to protect access to radiation oncology by mitigating payment cuts and ensuring that Medicare payments keep pace with inflation.

New Magnetic Resonance Examination Safety Procedure Codes:

In September 2023, the CPT Editorial Panel created a new code family to describe magnetic resonance (MR) examination safety procedures involving patients with implanted medical devices that require access to MR diagnostic procedures (CPT codes 7XX00-7XX05). The new code family captures additional work of physicians, medical physicists, and technologists, as well as practice expenses for medical supplies and medical equipment.

HEALTH POLICY & ECONOMIC ISSUES REPORT, Cont.

AAPM agreed with the CMS proposal to accept the RUC-recommended work relative value unit (RVU) of 0.60 for CPT code 7XX02, work RVU of 0.76 for CPT code 7XX03, work RVU of 0.75 for CPT code 7XX04, and work RVU of 0.60 for CPT code 7XX05.

CMS proposed several refinements to the direct practice expense inputs for MR examination safety procedure codes 7XX00 through 7XX05. AAPM in coordination with the American College of Radiology voiced concerns regarding multiple CMS revisions and provided recommendations for implementation prior to January 1.

Quality Measures:

In the 2024 MPFS final rule, CMS finalized the *Excessive Radiation Dose or Inadequate Image Quality for Diagnostic Computed Tomography (CT) in Adults (Clinician Level)* quality measure for the CY 2025 Performance Period/2027 MIPS Payment Year and future years.

AAPM reiterated concerns regarding this quality measure as currently developed. In summary, this quality measure lacks national consensus of stakeholders and practitioners and has significant scientific limitations that will impact its practical value. AAPM advocates for the development of national consensus metrics, with input from scientific, manufacturing, and standards stakeholders, towards scientific, meaningful, and practical assessment and tracking of CT dose and image quality.

CMS will address public comments in the 2025 final rules, which will be published on November 1.

AAPM's complete comment letters to CMS can be found [here](#). ■

Precision in Every Insight



imalogix
Rethink Healthcare

Unlock the Power of Imaging Data

Transform your imaging workflow with Imalogix, the first cloud-based, end-to-end image management solution. Improve efficiency, reduce costs, and enhance patient safety while automatically capturing detailed data for every acquisition. Easily benchmark protocols and performance.



CMS Compliance Made Simple

Stay ahead of regulatory changes with Imalogix. Our solution seamlessly integrates CMS requirements, ensuring you meet compliance standards while improving imaging outcomes.

Join the Future of Imaging

Track efficiency, elevate patient care, and make data-driven decisions with confidence.

Visit imalogix.com to learn more.

Copyright © Imalogix 2024

Magphan® Phantoms for MR – designed for Radiation Therapy and Quantitative Imaging Applications.



Magphan® RT

Smári



SN:1620006

Magphan® S162

Sub-voxel geometric distortion measurements with our high-precision phantoms and critical image quality metrics with Smári – engineered for ease of use in the clinical workflow.

[Click to see our latest phantoms and request a demo of our Smári image analysis service.](#)

phantomlab

phantomlab.com

ABR Welcomes New Medical Physics Trustee

ABR UPDATE

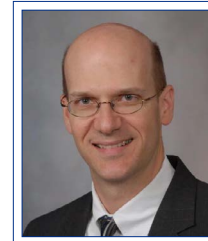


Dr. **Jennifer R. Stickel, PhD** became the new ABR Nuclear Medical Physics (NMP) Trustee in September 2024, at the conclusion of the fall board meeting of the ABR. Dr. Stickel replaces **Dr. Robert A. Pooley**, who is rotating off the Board of Trustees. As described in the article "[Roles and Responsibilities of an ABR Trustee](#)," each trustee has oversight of three to seven committees. Dr. Stickel will have oversight of the MP Part 1 Clinical and Part 2 NMP Qualification exams, Part 3 NMP Certification exam, and NMP OLA.

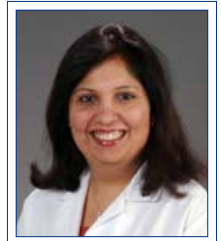
Dr. Stickel graduated with a PhD in Biomedical Engineering from the University of California (UC) at Davis; her advisor, **Simon R. Cherry, PhD**, literally wrote the book describing the discipline, "Physics in Nuclear Medicine." Dr. Stickel was introduced to medical physics when it was time to find employment after graduating with her PhD, having no awareness of the field prior to that time. UC-Davis was seeking a nuclear medical physicist to support the clinical imaging program and she realized she could have a rewarding career supporting the equipment and clinical applications. She was fortunate to have wonderful mentors: **Dr. John Boone**, **Dr. Ramsey Badawi**, and **Dr. Tony Seibert**, well-known to the AAPM and ABR communities. Dr. Stickel remained at UC – Davis for two years before moving to Colorado and joining Colorado Associates in Medical Physics (CAMP), a consulting group that provides medical physics services to the Rocky Mountain West. She was able to work her way up to joint owner and vice president while still supporting clinical medical physics needs.

Dr. Stickel is triple boarded! In addition to obtaining board certifications from the ABR in NMP and Diagnostic Medical Physics (DMP), she also has obtained certification in Nuclear Medicine Physics and Instrumentation from the American Board of Science in Nuclear Medicine (ABSNM).

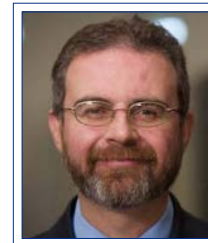
Dr. Stickel comes to the ABR Board of Trustees (BOT) with a long history of professional service. She has been a member of several AAPM task groups, including TG 356 with responsibility for creating a medical physics practice guideline (MPPG) related to Y-90 Microsphere Radioembolization. She has also been involved with the Intersocietal Accreditation Commission – Nuclear/PET (ICANL) organization since 2012 and has served in executive leadership roles including the presidential chain since 2017. She also helped develop the new radiopharmaceutical therapy standards and accreditation program with IAC. Dr. Stickel's service to the ABR began in 2016 as an item writer for the NMP Part 2 exam and she served as chair for this committee since 2019,



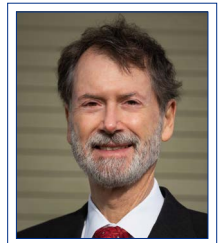
Robert Pooley, PhD
Mayo Clinic
ABR Trustee
Emeritus



Kalpana Kanal, PhD
University of Washington
ABR Trustee



Matthew Podgorsak, PhD
Roswell Park
Cancer Institute
ABR Chair, Board of Trustees



Geoffrey Ibbott, PhD
American Board of Radiology
Associate Executive Director

ABR Trustee terms are normally three years and are renewable once. Trustees are responsible for supervising and managing the work done by the large number of volunteers who write and review exam questions, assemble them into the ABR's exams, and administer the oral exams.

ABR UPDATE, Cont.

rotating off as chair at the end of this year. Additionally, Dr. Stickel regularly serves as an NMP Certification Exam oral examiner.

Dr. Stickel has been married to her husband, Jonathan, for 25 years. They have two children: Jebediah, 17 years old and a senior in high school and Jaelina, 13 years old and in 8th grade. When not supporting school events, they enjoy traveling both within the US and internationally. Jen also enjoys baking — cakes, bread, and pastries are all known to come out of the Stickel kitchen.

When thinking of her ABR volunteer time so far, Jen said "The ABR exam process is such a rite of passage for medical physicists. Being able to be a part of the process and ensure that the exams are relevant and appropriate is such an important part of maintaining the impact of board certification for our field. The volunteers and staff are so committed to the process that it is great to be a part of this group."



We welcome Dr. Stickel to the BOT and look forward to working with her. ■

AAPM 2025
JULY 27–30 | WASHINGTON, DC
67TH ANNUAL MEETING & EXHIBITION



COMING TOGETHER TO FORGE AHEAD
IN MEDICAL PHYSICS

IMPORTANT DATES!

NEW! \$25 Abstract Submission Fee

Abstract Submission Site Opens for Proffered Abstract Submissions

Tuesday, **November 5, 2024**

Deadline for **Proffered Abstract Submissions**

Tuesday, **January 14, 2025**

Authors Notified of Presentation Disposition

Thursday, **April 24, 2025**

Online Meeting Program Goes Live

Friday, **May 9, 2025**

ACR Accreditation & More: Info for Medical Physicists

UPDATES FROM ACR HQ

Changes to Supervision of Intravenous Contrast Media Use

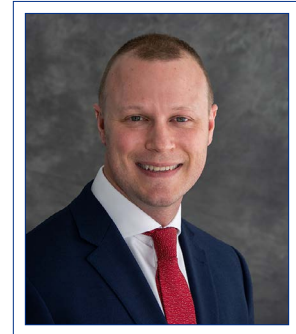
Recently, the ACR Contrast Committee came up with specific criteria that allow for remote direct supervision of contrast media. To ensure patient safety, the ACR believes there should be onsite personnel who would be, in the unlikely event of an adverse contrast reaction, able to appropriately handle contrast reactions. The committee chose to focus on qualifications as opposed to specific onsite personnel to account for differences in state and local regulations and in anticipation of possible future changes in the scope of practice. The CT and MRI accreditation committee agreed to update the accreditation requirements to coincide with the ACR Contrast Committee's new criteria. CMS has approved the changes.

Below is what was added to the Program Requirements for [MR](#) and [CT](#):

Onsite Personnel to Ensure Safety

On site, there must be a radiologist or other physician OR qualified person who is acting under the general supervision of a physician. This individual must:

1. Have received training and meet institutional periodic competency guidelines at evaluating patients and diagnosing and differentiating different types of adverse reactions to contrast material.
2. Be able to recognize when medical intervention is required for hypersensitivity immediate reaction or physiology adverse event due to contrast administration.
3. Be trained and legally permitted to administer prescription medications (e.g. antihistamine, intravenous fluid, beta agonist inhalers, epinephrine) and other appropriate interventions independently or under a standing orders/algorithmic approach under state law or regulations, and under local, institutional, site and facility policies, guidelines and rules. These interventions are those indicated for urgent response to a contrast material adverse event as listed in the ACR Manual of Contrast Media or similar local policies or guidelines.
4. When qualified to act under general supervision of a physician, be able to consult with the supervising physician within an appropriate timeframe.
5. Have minimum BLS certification.



Dustin A. Gress, MS
Senior Advisor for Medical Physics
ACR Quality and Safety, Reston, VA

In each issue of this newsletter, I present information of particular importance or relevance for medical physicists. You may also check out the [ACR's accreditation support page](#) for more accreditation information and QC forms. **Thank You** to all the other staff that keep ACR programs running and assist with creating the content in this column.

UPDATES FROM ACR HQ, Cont.

6. Understand when to call for assistance and how to activate emergency response systems.
 - If the general supervision by a physician is performed remotely, the process should comply with all federal/state law or regulations and local, institutional, site and facility policies, guidelines, or rules related to telemedicine. This remote general supervision should be available whenever contrast material is administered and include the standard post administration monitoring as dictated by all federal/state law or regulations and local, institutional, site and facility policies, guidelines, or rules.
 - Overall staffing should take into account the timeliness of available emergency response systems.

Note: Other physicians include radiology residents and fellows

Radiologist Led Teams

In order to ensure quality in diagnostic imaging, it is essential that the supervising professional be able to assess the quality of an image relative to the capability of the equipment and diagnostic demands, ensure diagnostic

quality, and minimize unnecessary radiation exposure to the patient and personnel. Onsite personnel should continue to be part of the radiologist led teams. To ensure that, APRNs and PAs should continue to work alongside physician-led teams.

Recent Accreditation Article Updates

- [Phantom Testing: Nuclear Medicine \(Revised 9-4-2024\)](#) — Updated large rectangular field camera dimension requirements and included the article on Modalities with Low Volume or Emergency Use.
- [Quality Control: Nuclear Medicine \(Revised 9-6-2024\)](#) — The annual physics survey and continuous QC sections were updated to state “if applicable” for the thyroid uptake and counting systems tests. The NM Equipment Evaluation Summary form was also updated to include these tests to only be performed if applicable.
- [Quality Control: PET \(Revised 9-6-2024\)](#) — The annual physics survey section now lists descriptions of the QC tests. The camera interlock test has been removed from the PET QC requirements and the PET equipment evaluation summary form has been updated to reflect this change. ■

Exciting News: APEX Unveils NEW Accreditation for Radiopharmaceutical Therapy

ASTRO QUALITY IMPROVEMENT

The American Society for Radiation Oncology (ASTRO) is excited to introduce a new radiopharmaceutical therapy (RPT) option within the APEX - Accreditation Program for Excellence. This new offering is designed to recognize practices for staying at the cutting edge of radiation oncology while maintaining alignment with national standards. As treatments and technologies evolve, ASTRO remains committed to keeping APEX adaptable and in sync with the changing landscape. The introduction of RPT accreditation reflects this commitment, offering practices an opportunity to enhance their services and gain recognition among the community, field and pharmaceutical companies for their expertise.



A radiopharmaceutical agent being prepared for delivery

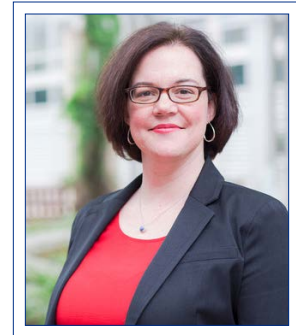
ASTRO understands that the management of RPT varies across different practice settings, which is why we've made the APEX RPT assessment more specialty agnostic than the traditional APEX program. We know that radiation oncology,

nuclear medicine, urology, and medical oncology can all play a role with planning, delivery, and patient management in RPT, which is why the APEX RPT designation focuses on comprehensive communication, training, processes, and systems to support patient safety.

What's New?

2024 marks a major milestone for APEX, with the most significant updates since the program's inception in 2014. In the [March/April 2024 issue of the AAPM Newsletter](#), we reviewed the breadth of program enhancements, including revised standards, increased practice guidance, and the new platform that makes APEX more accessible, transparent and user-friendly. All of these improvements are now live and ready for your practice.

What we weren't ready to announce in that previous issue was an RPT-specific assessment, which underscores ASTRO's dedication to supporting the use and continued growth of radiopharmaceuticals in treating cancer. APEX continues



Randi Kudner
ASTRO - Assistant Director of Quality Improvement

Learn more about the new radiopharmaceutical therapy designation at APExSupport@ASTRO.org.

ASTRO QUALITY IMPROVEMENT, Cont.

to be the [fastest growing radiation oncology accreditation program in the United States](#), and the inclusion of RPT supports APEx remaining comprehensive and forward focused.

Why RPT Accreditation Matters

Accreditation for RPT is essential for practices looking to demonstrate their commitment to the highest standards of safety, quality and effectiveness in this rapidly growing field. As the use of RPT expands, so does the need for standardized processes that support patient safety and consistent treatment outcomes. By undergoing an RPT-specific assessment, practices not only show their dedication to excellence in patient care and rigorous staff training but also maintain compliance with national standards from ASTRO, AAPM, and others.

APEx for RPT serves as a mark of distinction, signaling to patients and peers that a practice is equipped to deliver these therapies. APEx also fosters trust, helping patients feel confident in the care they receive, knowing it meets or exceeds national standards. Additionally, accredited practices are marked as leaders in the field, highlighting their ability to adapt to new technologies and deliver innovative treatments.

Getting Started

Getting started with the RPT-specific pathway, or the full APEx accreditation process, is easy. Practices can choose between pursuing:

- RPT accreditation as a standalone offering or
- integrating it into their larger APEx accreditation.

Both options provide practices specializing in RPT with the opportunity to be recognized for their expertise and dedication to quality care.

2024 is a big year for APEx, and ASTRO is proud to offer the new RPT pathway. Now is the perfect time to [join over 450 facilities](#) that have already committed to the APEx accreditation process.

Interested practices can contact APExSupport@ASTRO.org [schedule an individual interest meeting with ASTRO staff](#) to learn more about the process. Whether you're seeking the standalone RPT accreditation or the comprehensive APEx accreditation, ASTRO is here to help you every step of the way.

Take the next step in advancing your practice and demonstrating excellence in radiopharmaceutical therapy! ■

Empowering Global Early-Career Researchers: Maximizing Impact through Scientific Publication, Open-Source Resources, and Global Education

INTERNATIONAL COUNCIL REPORT #1

The Global Early Career Research Subcommittee ([GECRSC](#)) is committed to fostering international collaboration, mentorship, and showcasing rising talent in medical physics. Initiatives such as the **Global Rising Stars** program highlight the research, experiences, and achievements of emerging leaders in the field to advance the global research landscape in medical physics.

This article features interviews with some of our Global Rising Stars, providing insights into their expertise and offering advice to young investigators aspiring to advance their careers through high-impact research publications, open-source resources, and global outreach. To learn more about their research and professional development, please engage with the [AAPM Global Research Education and Global Rising Stars Webinar Series](#).

Maximizing your Research Impact by Understanding the Scientific Publication Process¹



Qihui Lyu, PhD is an Assistant Professor in Residence and board-certified Medical Physicist at the UCSF Department of Radiation Oncology. She received her bachelor's degree in physics from Nanjing University in 2016, and PhD in Medical Physics from University of California, Los Angeles (UCLA) in 2021. From 2021 to 2023, she received clinical training from the UCLA Medical Physics Residency Program. Her research focuses on image reconstruction, dual-energy CT, treatment plan optimization, machine learning,

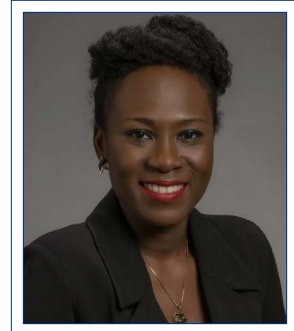
etc. Dr. Lyu developed optimization algorithms that open new dimensions in image-guided radiotherapy.

What advice do you have for students and residents looking to get more experience in the journal reviewing process?

I recommend reaching out directly to editors or associate editors to inquire about review opportunities, as there is often a strong demand for competent reviewers. Once you start to review a manuscript, you will get feedback during the review process. For example, some journals will share the review comments from other reviewers and the associate editor. Additionally, participating in reviewer training programs, which are often offered by journals (e.g. PMB), professional societies (e.g. ASTRO), or academic institutions, can be an excellent way to build the necessary skills and confidence for effective reviewing.



Derek Tang
University of Massachusetts Lowell



Afua Yorke, PhD
University of Washington-Seattle

We are grateful to **Dr. Qihui Lyu**, **Dr. Humza Nuzrat**, and **Dr. Joe Weygand** for sharing their experiences, knowledge, and advice. For those interested in showcasing their research activities and professional development, we encourage you to apply to the **GRS** program and join the [Global Early Career Research Network](#).

INTERNATIONAL COUNCIL REPORT #1, Cont.

What strategies do you have for writing an impactful scientific paper?

Impactful and meaningful research is the key to writing an impactful paper. A clear and well-executed methodology (such as using figures, flowcharts, or pseudo code) and detailed results will enhance the readability, credibility, and impact of the paper. Additionally, consider making your data, code, and any supplementary materials available as open-source resources. This promotes transparency, allows others to validate or build upon your work, and ultimately increases its reach and influence.

Open-Source Resources in Medical Physics²



Humza Nusrat, PhD is a Senior Staff Physicist in the Department of Radiation Oncology at Henry Ford Health in Detroit, Michigan. He completed his PhD in physics at Toronto Metropolitan University in 2019, followed by a medical physics residency at the University of Toronto, where his research on optimizing diffusion-

weighted imaging for MR-Linac systems earned him the UTDRO J. R. Cunningham Award for Academic Excellence in Physics Research in 2021. Before joining Henry Ford Health, he was a Staff Medical Physicist at Sunnybrook Health Sciences Centre. His research program focuses on integrating virtual and augmented reality technologies to enhance cancer care. He is committed to mentoring graduate students and residents and has held leadership roles in both the Canadian Organization of Medical Physicists (COMP) and the AAPM.

What are the primary advantages of utilizing open-source resources and data in research, particularly for early-career researchers?

I see three main advantages: costs, developer resources, and enhanced transparency.

My lab focuses on building virtual reality (VR) applications to improve training for cancer care professionals. As an early-career researcher, grant funding is often limited until you establish your research program. By utilizing open-

source tools, I can innovate, and experiment more rapidly compared to using closed-source alternatives, without the burden of high licensing fees.

Secondly, open-source tools are supported by large developer communities rich in resources. This environment not only provides extensive guidance but also opens doors to valuable partnerships and collaborations. Being part of an open-source developer community has enabled me to connect with experts in VR and medical physics, accelerating the development of applications that can make a real difference in radiation oncology training.

Finally, open-source tools facilitate transparency and reproducibility. Having full access to the source code allows me to dive deep into the software and understand exactly how everything works. The ability to modify and adapt to our specific needs ensures that the VR applications we develop are tailored to help achieve our goals.

How can early career researchers contribute to the open-source community while benefiting from its resources?

This should always be top of mind when building a research program using open-source tools. In my experience, there are several key ways to give back to the community, including sharing tools and code, actively participating in open-source projects, and engaging with the broader community. Sharing your lab's open-source code not only allows others to collaborate but also helps advance the field by enabling others to build upon your work. For example, in my lab, we've developed an immersive simulator for prostate brachytherapy training. By making this application open source, we've provided a foundation that others can use to develop simulators for interventional procedures outside of oncology, thus broadening its impact. Participation in open-source projects can take many forms, from improving documentation and fixing bugs to offering support on developer forums. Being an active member of the community is a great way to contribute and collaborate while also learning from others. Engaging with the open-source community through these contributions not only strengthens your own research but helps sustain the collaborative spirit that drives innovation forward.

INTERNATIONAL COUNCIL REPORT, Cont.

Expanding Access and Delivering Education in Radiological Health Sciences to Low-Resource Areas



Joe Weygand, PhD, DABR is an Assistant Professor of Radiation Oncology and Applied Sciences at Dartmouth College in Hanover, NH, and serves as the Program Manager of Therapeutic Medical Physics at the charitable organization RAD-AID International³. He has a

longstanding interest in the global application of radiological health sciences and has been on medical physics outreach trips to Tanzania, Senegal, Uganda, Ghana, Mongolia, and Rwanda. He particularly focuses on global medical physics education and has founded, directed, and served as a lecturer at numerous education programs from Kenya to Ukraine, including the Global Medical Physics Education Lecture Series for physicists in LMICs and most recently an MRI course for the Turkish Medical Physics Association. His long-term goal is to establish regional medical physics training centers all over the world.

How did your early career experiences shape your interest in global health and education?

Between my PhD and my residency, I spent one year traveling around sub-Saharan Africa volunteering in radiation oncology and radiology clinics. My goal was to come away with a better understanding of the unique problems physicists face in these lower-resource settings. I would always ask the physicists, technologists, and physicians in these settings what was the biggest barrier to access to radiological health services (radiology or radiation oncology, depending on the context) in their country, and the answer I repeatedly received was

access to high-quality education. For example, out of the approximately fifty countries in sub-Saharan Africa, only four have either graduate programs and/or clinical training programs in medical physics⁴. Thus, for everyone else, access to medical physics education requires moving abroad which is often prohibitively expensive or overly competitive. I resolved to harness available technology (i.e., virtual meeting platforms) in my career to enhance medical physics education in LMICs and hopefully help mitigate some of the global disparities that exist in radiological health services.

How do you tailor your educational materials and approaches to meet the needs and limitations of LMICs?

Most of the educational content that I've prepared was originally tailored to resources available in LMICs. For example, in the course I taught to medical residents in Kenya, I placed a larger emphasis on ultrasound techniques than I probably would have had I been teaching medical residents in the US. My plan was to shy away from the more advanced technologies like MRI-guided radiotherapy (my research interest), proton or heavy ion therapy, and other high-cost applications. However, most of the students I work with, being physicists or medical doctors, are intensely curious people and have specifically requested lectures on these advanced topics. While I still try to be mindful of the setting in which specific students work in when delivering or organizing lectures, I have expanded the scope of material that I present. At the end of the day, as physicists, our job is to think outside of the box and solve problems. Even if a given technology is not presently available in the student's country and won't be for the foreseeable future, the concept itself might stimulate ideas which result in solutions that are possible within the student's setting and, ultimately, helps better treat their patients. ■

¹<https://www.aapm.org/meetings/webinars/GRSICWebinarSeriesNo2.asp>

²<https://www.aapm.org/meetings/webinars/GRSICWebinarSeriesNo3.asp>

³<https://rad-aid.org/>

⁴Ge T, Hasford F, Tabakov S, et al. Medical Physics Development in Africa – Status, Education, Challenges, Future. *MPI*. 2020

AAPM CAREER SERVICES

CONNECTING medical physicists with the finest JOBS

POST YOUR RESUME

APPLY FOR JOBS

GET JOB ALERTS

GET STARTED!

Find your future at aapm.org/careers



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE

A Day in the Life of a Medical Physicist in Latin America and the Caribbean

INTERNATIONAL COUNCIL REPORT #2

Introduction

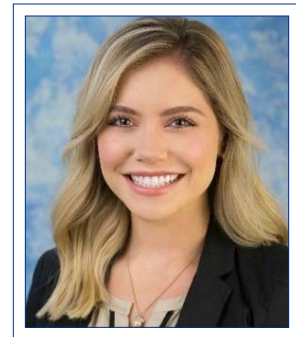
The Global Needs Assessment Committee (GNAC) of the AAPM International Council evaluates the needs of medical physicists in Low-and-Middle Income Countries (LMICs) to inform global health outreach and research. The GNAC is organizing a series of webinars focusing on the six World Health Organization (WHO) global regions to highlight the roles of medical physicists in LMICs and explore collaboration opportunities in order to guide AAPM's strategies to address the unique challenges in these regions. The second webinar, held on August 13, 2024, featured physicists from Bolivia, Argentina, and Barbados discussing their infrastructure and specific challenges. The event was organized and moderated by GNAC members Izabella Barreto, Damian Rudder, and Cesar Della Bianca. We invite you to watch the webinar [A Day in the Life of a Medical Physicist in Latin America and the Caribbean](#). This article summarizes key themes from the presentations to provide valuable insights for potential collaborators.

Speaker Presentations



Leslie K. Fanola Guarachi, PhD, Head of Medical Physics at the Nuclear Medicine and Radiotherapy Center (CMNyR) under the Bolivian Nuclear Energy Agency (ABEN), discussed CMNyR's role in delivering nuclear medicine, radiation therapy, and chemotherapy. The center utilizes advanced technologies such as a cyclotron, Elekta Synergy linear accelerators, and HDR brachytherapy units, supported by a multidisciplinary team of over 90 professionals. CMNyR collaborates with Argentina's

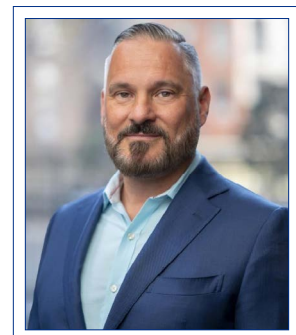
Nuclear Diagnosis Center and participates in the IAEA's Technical Cooperation Project RLA6091 to enhance training and improve safety practices. However, Bolivia faces significant resource challenges, with only 21 medical physicists in total throughout the country — 11 employed by ABEN. Dr. Guarachi emphasized the need for a clinical training program in radiation therapy and nuclear medicine, which they plan to propose to the Ministry of Health. However, current financial and staffing limitations hinder the establishment of a master's program in medical physics. Proposed solutions include revisiting ABEN's program proposal and collaborating on training requirements.



Izabella Barreto, PhD
University of Florida College of Medicine

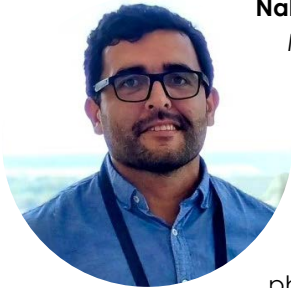


Damian Rudder, MS
UPMC Hillman Cancer Centers



Cesar Della Bianca, PhD
Memorial Sloan-Kettering Cancer Center

INTERNATIONAL COUNCIL REPORT #2, Cont.



Nahuel Diaz Giunta, MS, Chief Medical Physicist at the Centro Oncológico Anna Rocca de Bonatti, as well as staff medical physicist at CETAC Juncal in Argentina, outlined opportunities for collaboration and growth within the medical physics community in Argentina.

Nahuel highlighted the challenges faced by medical physicists, such as budget constraints and the need for shared equipment, which can lead to delays during malfunctions. Argentina has 134 megavoltage radiotherapy units across 98 centers, yet training opportunities remain limited due to financial restrictions. Despite this, Nahuel noted the benefits of thermoluminescent dosimeter (TLD) services and the IAEA/WHO Network of Secondary Standards Dosimetry Laboratories and praised the adaptability of Argentina's medical physicists, who uphold high standards of patient care through strong national and international collaborations.



Corey Drakes, MS, Chief Medical Physicist at Queen Elizabeth Hospital in Barbados, oversees radiation oncology, nuclear medicine, diagnostic radiology, and radiation safety. As the only public facility providing these services in Barbados,

Corey's responsibilities include quality control (QC) and assurance (QA), treatment planning, and staff training. He often addresses urgent issues, such as equipment malfunctions, due to staff shortages and aging equipment. Corey emphasized the importance of international collaboration with AAPM, which can provide training and support to improve competencies. He reflected on the rewarding yet challenging nature of his role in an LMIC, underscoring opportunities for growth through collaboration and continuing education.

Question and Answer Panel Session

The Q&A panel focused on the unique challenges by medical physicists in Bolivia, Argentina, and the Caribbean.

When asked what one thing would most improve their ability to do their jobs, Corey stressed the urgent need for additional medical physicists in Barbados, calling for the immediate recruitment of a second or third physicist to alleviate his overwhelming workload. Nahuel highlighted the lack of onsite training in Argentina and expressed that providing local, hands-on training would greatly enhance the skillsets of medical physicists in his country. Leslie emphasized the importance of developing a Master's program in medical physics in Bolivia, citing the lack of time and human resources as barriers to implementing the program and providing proper instruction. She noted that existing staff are stretched too thin to manage both clinical and educational duties.

Panelists shared varying experiences with collaboration. Leslie mentioned that there are only a few geographically dispersed medical physicists in Bolivia, which limits collaboration. In contrast, Nahuel noted Argentina's established national and international networks that facilitate training and cooperation. Corey emphasized the need to view the Caribbean as a region rather than individual islands, explaining that regional collaboration is key to overcoming the challenges faced by medical physicists. He noted that a growing effort is underway to unite medical physicists across the Caribbean, and he expressed hope that this momentum would continue, with AAPM potentially playing a key role in motivating others and spreading awareness about the benefits of regional cooperation.

The discussion also addressed training and funding availability. Leslie highlighted Bolivia's need for more medical physicists amid the introduction of new technologies. Nahuel noted the limited access to international training despite available domestic funding. Corey shared that the IAEA supports Caribbean training, aiming to fill the deficit of medical physicists in the region. Regarding online learning, both Nahuel and Corey acknowledged the benefits but agreed that it cannot replace onsite clinical training. Corey emphasized the necessity of combining didactic training with clinical experience, while Leslie pointed out the lack of interest among potential trainees in Bolivia.

In discussing the status of medical physics, the panelists revealed the significant role of radiation therapy and

INTERNATIONAL COUNCIL REPORT #2, Cont.

nuclear medicine physicists, while the need for diagnostic physicists remains unmet. Corey described the burnout he experiences as the sole physicist in Barbados, working late and during vacations without adequate support. The lack of peer review and collaboration opportunities hinders policy development, though he has utilized IAEA and PAHO-trained professionals to delegate tasks. The number of radiotherapy machines and medical physicists

are reported in Figure 1 and Table 1, respectively, for Bolivia, Argentina, and Barbados, as compared to the United States. While Corey reported being the sole medical physicist in his country, it is clear Bolivia, with a significantly larger population, is in dire need of both radiotherapy machines and more qualified medical physicists to serve their population of over 12 million people.

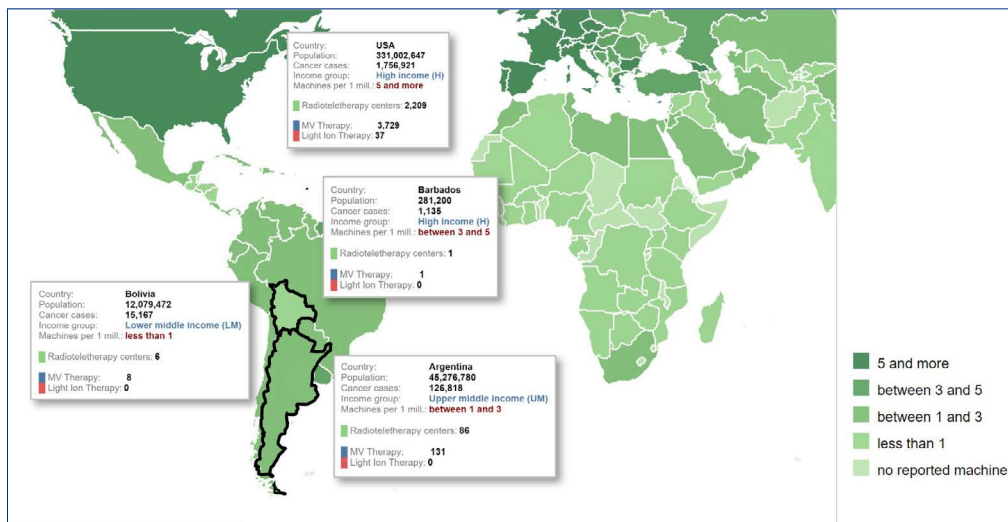


Figure 1. Number of Radiotherapy Machines per Million People¹

The potential for artificial intelligence (AI) to improve efficiency was also discussed. Corey suggested AI could automate tasks in radiation therapy, while Nahuel mentioned using open-source software for quality assurance. Leslie highlighted AI's potential for improving quality control in nuclear medicine, with Corey advocating for AAPM to guide effective AI implementation. Finally, panelists addressed equipment calibration services and regulatory frameworks. Corey explained that Barbados

	Number of Medical Physicists			Total	Medical Physicists per 1,000 people	Population (million) ²	Ratio of population to number of medical physicists
	Radiation Therapy	Nuclear Medicine	Diagnostic Imaging ^b				
Bolivia	15 ^a	6 ^a	-	21	0.021	12.39	590,000
Argentina	185	24	-	209	0.209	46.65	223,205
Barbados	1	-	-	1	0.001	0.28	280,000
United states ^{3,4}	6150	235	1794	8200	6.385	334.9	40,841

^a Includes reported medical physicists under supervision and in training
^b Medical physicists in LMIC reported radiation therapy and nuclear medicine medical physicists perform QC tasks related to diagnostic imaging

Table 1. Number of reported medical physicists working in each country

INTERNATIONAL COUNCIL REPORT #2, Cont.

relies on external institutions for calibration, calling for a regional facility. Leslie described regulatory challenges in Bolivia, noting that new legislation on ionizing radiation is hindered by insufficient enforcement capacity, posing obstacles to advancing medical physics.

Conclusion

In summary, the speakers identified common challenges such as a shortage of trained medical physicists, limited

resources for training and collaboration, and gaps in regulatory frameworks. However, they expressed optimism about growth potential through regional and international collaboration, training program development, and new technologies. AAPM was recognized as a key player in facilitating these advancements, highlighting critical areas for the International Council to strengthen the physics workforce and improve practices through international partnerships. ■

References

1. IAEA DIRAC (Directory of RAdiotherapy Centres) Database. <https://dirac.iaea.org/> Accessed 9/22/24
2. "Population, total." World Development Indicators, The World Bank Group, <https://data.worldbank.org/indicator/SP.POP.TOTL>. Accessed 9/26/24
3. Newhauser WD, Gress DA, Mills MD, Jordan DW, Sutlief SG, Martin MC, Jackson E. Medical physics workforce in the United States. *J Appl Clin Med Phys*. 2022 Dec;23 Suppl 1(Suppl 1):e13762. doi: [10.1002/acm2.13762](https://doi.org/10.1002/acm2.13762)
4. Rose SD, Jordan DW, Bevins NB, et al. Estimated size of the clinical medical imaging physics workforce in the United States. *J Appl Clin Med Phys*. 2022; 23:e13664. doi: [10.1002/acm2.13664](https://doi.org/10.1002/acm2.13664)

I am Still Clapping

EQUITY, DIVERSITY, AND INCLUSION COMMITTEE REPORT

I know I can't be the only one who feels like this. After having been a member of this illustrious society of medical physicists for over 15 years now, very little could shock me or impress me. And then this past Annual Meeting in Los Angeles happened. Trust me, coming from Houston to LA in the midst of the CrowdStrike travel fiasco, I was tired and just happy for a change in scenery, but I did not expect my worldview to change along with the landscape.

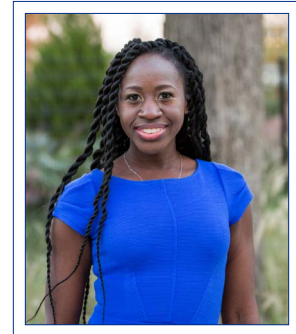
Now, I will be the first to admit that we all knew who would be awarded during the Awards and Honors Ceremony on that pivotal Monday night, but it was an entirely different experience being there in the room and seeing it unfold. We all sat there huddled together in just a bit too close for comfort dining room chairs, all eager to hear the names of friends we know, so we could politely clap and then descend upon the open bar and hors d'oeuvres waiting just outside the backdoors of that dimly lit ballroom.

But something happened. Something fantastical.



L – R: Mary Martel, Cynthia McCollough, Dianna Cody

McCollough as our 2024 Coolidge Gold Medal winner but also saw fit to award **Robin Stern, PhD**, as the Marvin M.D. Williams Professional Achievement Award recipient alongside equally notable **Per Halvorsen, MS**. They awarded **Mary Martel, PhD** and **Dianna Cody, PhD** with the Edith H. Quimby Lifetime



Julianne M. Pollard-Larkin, PhD
The University of Texas M.D. Anderson
Cancer Center

Amidst the litany of names of outstanding literal award-winning medical physicists, four women medical physicists won the top three awards in all of AAPM!

This has never happened before in our 66-year history. How big is this? About 20% of all AAPM full members identify as women, and the first woman to ever win the William D. Coolidge Gold Medal was Edith Quimby, PhD, in 1977, and the next woman to win was **Maryellen Giger** in 2015, nearly 40 years later. To say that it was time for our third woman to win a Coolidge award is quite an understatement. However, our awards committee not only approved and appointed **Dr. Cynthia**

EQUITY, DIVERSITY, AND INCLUSION COMMITTEE REPORT, Cont.

Achievement Award jointly. Beyond that, two women, **Lyobosa Uwadiae, PhD**, and **Kelly Kisling, PhD**, were Program Directors for the global education program that won the 2024 Arthur Boyer Award for Innovation in Medical Physics education. All of that, taken together with our recent 2024 election results — **Robin A. Miller, MS**, is our President-Elect, makes an incredible year for our 66-year history. None of this is the result of politics but of actual grit and lifetimes dedicated to hard work and excellence in the field. For example, Dr. McCollough has been outworking and excelling most of us these last 38 years, with over 500 publications, 130 mentees, 39 patents, and an h-index of 108! She earned every bit of the award, and the stunning red ball gown she wore to the ceremony was replete with functional pockets.

Full disclosure, Dr. Martel is my boss, but she is not the reason why I am writing this. I, too, am a boss, mentor, and AAPM member/leader. This means my words can be used to help encourage other members, whether they are junior or senior to me and I respect that. It wasn't too long ago when I first joined AAPM in the early 2000s, and I knew no member besides the faculty from my graduate program. Despite being a woman trainee medical physicist, I did not have a woman medical physicist mentor, nor was I worried about that. Being African American and female, I was already satisfied to encourage myself and find mentorship from whoever was readily available since so few women or Black physicists were in the field. The idea that there would ever be a day in my mid-career when four women would win the top 3 awards was nowhere on my radar. It was an idea shelved next to "unlikely" and "don't hold your breath." And here we are, post-July 22, 2024, when all of this happened.

I can't help but clap. Not just for the winners but for our whole organization. We **all** won that night. A glass ceiling, a myth about our collective norms, values, and potential, crashed and died that night.

I see us differently now. Psychological safety and trust are sacred values to me, and I don't mince words when describing them if I sense them. Early in my career, I was guarded as a junior AAPM member, unsure of what my potential could be in a large organization that seemed complicated, cold, uninviting, and difficult to navigate. And now, after making the huge adjustment by sticking my neck out and volunteering as a guest member for initiatives I am passionate about, AAPM feels as familiar as a pair of well-worn jeans. I feel seen, valued, and heard, and I now know that if I do the work, I will be acknowledged.

It feels great to be alive and to have seen how far AAPM has advanced in its science and its acknowledgment of scientific excellence from more backgrounds. We are not just getting older; we are getting better day by day. We are improving how we represent the values and norms of our members. Look at our Board of Directors and the growing number of new leaders in our organization. If you never thought AAPM could improve, look again and lean in! This is the time to volunteer, regardless of how you identify, and help physically be part of the solution you want to see implemented in our field. The moral arc towards equity is long, and we are smack dab in the middle of its glorious bow with still so much work to do. As your chair of the Equity, Diversity and Inclusion Committee, I wholeheartedly want you to take some calculated risks and volunteer for one group and see how far you can grow and improve us. We are the future we are hoping for, so get to work, and let's go!! ■

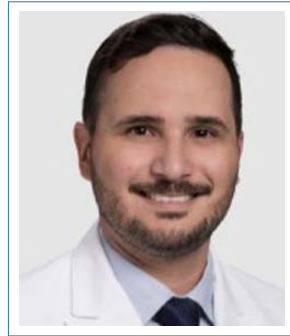
Special Interest Feature: Women's Professional Subcommittee

EDIC SESSIONS AT THE 2024 AAPM ANNUAL MEETING

Dominic Maes, PhD | University of Washington

The EDIC sessions at this year's AAPM Annual Meeting reflected the organization's ongoing commitment to fostering equity, diversity, and inclusion within medical physics. From advocating for women in leadership to ensuring accessible workplaces for all, these sessions not only highlighted current challenges but also provided attendees with the tools and inspiration to create change within their own institutions.

Since 2021, our Equity, Diversity and Inclusion Committee (EDIC) has been providing the entire medical physics community with publications, educational trainings, webinars and resources to help educate AAPM members and the public at large about the value and importance of making medical physics accessible and inclusive to everyone. At this year's AAPM Annual Meeting, EDIC showed up and outperformed by several metrics! We not only had sessions led by EDIC members and leadership but, notably, there were several regular sessions in the scientific tracks that included EDI-related themes such as posters evaluating how to navigate fair and equitable AI practices to evaluating the impact of diversity training when reviewing the MedPhys Match application process. EDI has become mainstream! And if you are interested in seeing more, here are some highlights from some of the EDI-related sessions:



Neurodiversity, Mental Health, and the Rise of Burnout: Cultivating Mental Wellbeing at the Workplace

Moderator: Ghada Aldosary, PhD

Speakers: Christopher Thomas, PhD, Deborah Schofield, PhD and Eric Ford, PhD

This session explored three branches of mental health and their impact on the professional life of medical physicists: neurodiversity, chronic mental health conditions and burnout. **Ghada Aldosary, PhD** opened the session by disclosing that although nearly 20% of the North American adult population has chronic mental health conditions, this topic is often not discussed in professional spaces due to lack of awareness and/or associated stigma.

Christopher Thomas, PhD began his talk on "Mental Wellbeing: Burnout and Mental Health" by sharing the prevalence of burnout among medical physicists and distinguished between chronic mental health conditions and burnout. He also defined neurodiversity and discussed how neurodiversity can be leveraged in the workplace. **Eric Ford, PhD** then shared his insights on "Institutional Considerations and Mental Wellbeing".

He identified how workforce shortages and staffing issues can cause systemic factors that lead to burnout. He shared tips on what managers can do to prevent their staff from burning out, including streamlining workloads and being attentive to procedures and clinical demands. Afterwards, in her talk on "Supporting Resilience and Wellbeing of Medical Physicists," **Deborah Schofield, PhD** provided more information on how to identify burnout, how to prevent it from occurring, and shared examples of personal strategies to build resilience and navigate burnout.

The talks were followed by a lively discussion which included acknowledgment of the importance of creating more inclusive workplaces for neurodivergent medical physicists, as well as an exchange of resources on how to create healthier workplaces that support mental wellbeing.

Disability and Accessibility: I Don't Want to Say the Wrong Thing

Moderators: Andrea Molineu, MS, E. Park

Speakers: Lindsey Jones, MS, Abby Besemer, PhD, Grace Eliason, MS

This session focused on the accessibility challenges faced by medical physicists with disabilities. The discussions emphasized the need for universal design principles to be applied to work environments and highlighted tools that can make medical physics more accessible. Attendees also discussed ways to increase awareness of disability issues in the field.

EDIC SESSIONS AT THE 2024 AAPM ANNUAL MEETING, Cont.



From left to right: Rebecca Howell, PhD, Toni Roth, MS, Kristi Hendrickson, PhD, Stephen Avery, PhD, and Julianne Pollard-Larkin, PhD, discuss the evolution and impact of AAPM's EDI efforts, highlighting the growth from WMRSC to EDIC and the importance of inclusive practices in medical physics

The Impact and Value of EDI in Medical Physics: How Have We Benefited and How Do We Keep the Momentum?

Moderator: Julianne Pollard-Larkin, PhD

Speakers: Stephan Avery, PhD, Richard Castillo, PhD, Kristi Hendrickson, PhD, Toni Roth, MS, Rebecca Howell, PhD

This standout session included the EDI-heavy-hitters, including **Julianne Pollard-Larkin, PhD**, chair of EDIC, **Stephen Avery, PhD**, former chair of WMRSC (which is the progenitor of EDIC, hence how he has been dubbed the "AAPM's EDI Godfather" by Dr. Pollard-Larkin), **Kristi Hendrickson, PhD**, former WPSC chair, **Toni Roth, MS**, current Sexual and Gender Minority Subcommittee chair (SGMSC) and **Rebecca Howell, PhD**. The point of this session was to speak to those who have difficulty seeing the value in discussing EDI in a scientific setting. The panel gave a historical

overview of how the AAPM EDI efforts started with the WMRSC (Women and Minority Recruitment Subcommittee) and evolved into the EDIC that we appreciate today with its cluster of affinity groups. Beyond explaining why EDIC exists, the panel described how much AAPM, its members, and medical physics itself are gaining from EDIC's initiatives which give a safe space to all of our members, professional guidance in EDI topics and data to help ensure our AAPM community and practices are inclusive of all of our members. The session was well-attended and well-received with robust discussion amongst the audience that continued well beyond the bounds of the session's allotted time.

EDIC Affinity Reception

If you have never gone to it, make sure you find time at next year's meeting to attend the hottest reception at AAPM Annual Meetings. The EDIC

reception is frequented by all of AAPM leadership from EXCOM, the President-Elect, the new Executive Director, **David Gammel, MA** and of course all of EDIC leadership from EDIC chair, **Julianne Pollard-Larkin, PhD**, Diversity and Inclusion Subcommittee chair (DISC), **Richard Castillo, PhD**, Women's Professional Subcommittee (WPSC) chair, **Jennifer Pursley, PhD**, Sexual and Gender Minority Subcommittee chair, **Toni Roth, MS**, Accessibility Subcommittee chair, **Lindsay Jones, MS**, Hispanic and Latin-X Medical Physics Subcommittee chair, **Paulina Galavis, PhD**, amongst other EDIC members and leaders from other committees across all of AAPM. This year's reception was even more electric than the music that flowed through the night because everyone's spirits were buoyed by the successful launch of our first ever SGMSC Brunch. The EDIC reception is an event for celebrating all of our wins as a community that is getting more inclusive and representative of our overall membership.

Bridging the Leadership Gap: Increasing Representation of Women in Leadership Roles in Medical Physics

Moderator: Izabella Barreto, PhD

Speakers: Jean Moran, PhD, Eric Ford, PhD, Jennifer Pursley, PhD, Kalpana Kanal, PhD

Moderated by **Izabella Barreto, PhD**, this session highlighted the internal and external barriers that women encounter when seeking leadership positions in medical physics. **Jean Moran, PhD**, provided real-life examples of these challenges, while **Eric Ford, PhD**, emphasized the successes of women in the field,

EDIC SESSIONS AT THE 2024 AAPM ANNUAL MEETING, Cont.

stating that they deserve leadership roles and that the current landscape must evolve to support this. **Jennifer Pursley, PhD**, introduced ideas on bridging the leadership gap, encouraging attendees to consciously promote women from entry-level roles and to set clear goals for hiring and promotions. Dr. Pursley also touched on the need for women to consider leadership opportunities without a formal title, such as leading projects, and for employers to recognize the value of employees in remote or flexible roles. **Kalpana Kanal, PhD**, left a strong impact with her quote, "Women are raised to be perfect while men are raised to be brave," encouraging women to overcome fear and be more visible in their workplaces.

Women Physicist's Luncheon

The Women's Luncheon was another standout event featuring speeches

from AAPM President **Todd Pawlicki, PhD**, and newly appointed AAPM Executive Director **David Gammel, MA**. Dr. Pawlicki emphasized an action plan to reduce the time burden of the AAPM president role, making the position more accessible to women, who often carry a disproportionate amount of responsibilities at home. The session also continued the previous session discussing the disparity in leadership positions between men and women, diving deeper into the reasons and possible solutions. The event fostered rich dialogue with table discussions focusing on leadership topics, including ways to address these inequalities.

Wiz Kidz

This family-friendly event just celebrated its 8th year! Wiz Kidz brought together kids and adults alike in an engaging, educational

experience with games centered around teamwork and some understanding of radiation. This year, kids worked on teams to compete on finishing a scavenger hunt in the exhibit hall with clues all based on vendor products. This meant our wonderful exhibitors pre-arranged to engage with the students and help explain the purpose behind their products. Beyond that, the students got to play a round of a "Jeopardy"-inspired "Guess that Linac Part" to help them have fun while learning what makes medical physics so great. Wiz Kidz was a fantastic opportunity for children to explore STEM in a fun and interactive way, fostering an interest in medical physics from an early age. ■



2025

AAPM

FUNDING OPPORTUNITIES



SCAN THE QR CODE AND VISIT:
for regularly updated information on all
AAPM funding opportunities.

gaf.aapm.org

AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE

Special Interest Feature: Women's Professional Subcommittee

AAPM 2024 WOMEN'S LUNCHEON

Chelsea Page-Robertson, MS, DABR | Common Spirit Health

The Women's Luncheon is a vibrant and engaging gathering, with professionals coming together to celebrate and strengthen our bonds within the field of medical physics. This year's event at the 66th AAPM Annual Meeting in Los Angeles, CA, was no exception. The event sold out of its 300 seats, as it usually does, highlighting just how much of a fan-favorite this gathering is.

Jennifer Pursley, PhD, chair of the **WPSC** and newly elected Fellow, welcomed the crowd and thanked our Platinum sponsor of the event, Elekta. Thanks to their generosity, leftover funds from the sponsorship were put to good use — the attendees received unique "This is What a Physicist Looks Like" enamel pins, a small but meaningful token that champions visibility and diversity in the profession.



Dr. Pursley also took a moment to extend a special thank you to **Lauren Long**, the chair of the Luncheon Working Group, for her hard work and dedication in organizing such a successful and memorable event.

Next, the new AAPM Executive Director, **David Gammel**, addressed the crowd and thanked everyone for the invitation to the event. He then handed it over to the current AAPM President, **Todd Pawlicki, PhD**. Dr. Pawlicki spoke about the

challenges women face in leadership positions, noting that leadership roles often come with a disproportionate burden of responsibilities at home. He emphasized that while women are more than capable of carrying this burden, they shouldn't have to, advocating for a more equitable distribution of responsibilities.

Dr. Pawlicki expressed his excitement about the future of the Women's Professional Subcommittee and its potential to make a lasting impact on the profession. He pledged to work with the committee to develop resources addressing the unique challenges faced by women in medical physics, from implicit bias to work-life balance. He encouraged everyone in the room to share feedback and ideas with AAPM leadership, emphasizing that by working together, women can have



AAPM 2024 WOMEN'S LUNCHEON, Cont.

equal opportunities to succeed, lead, and make meaningful contributions to the AAPM and the profession as a whole.

Before closing his remarks, Dr. Pawlicki took a moment to recognize the outstanding achievements of female colleagues honored at this year's Annual Meeting. He congratulated the 11 newly elected AAPM Fellows, **Robin L. Stern, PhD**, recipient of the Marvin MD Williams Professional Achievement Award, **Mary K. Martell, PhD** and **Dianna D. Cody, PhD**, recipients of the Edith H. Quimby Lifetime Achievement Award, and **Cynthia H. McCullough, PhD** who was awarded the William D. Coolidge Gold Medal.

Izabella L. Barreto, PhD, then took the stage to deliver a comprehensive recap of the prior session, *Bridging the Leadership Gap: Increasing Representation of Women in Leadership Roles in Medical Physics*. For those who hadn't attended, she highlighted key takeaways and encouraged the audience to reflect on the session's themes during the upcoming panel discussion and Q&A.

Following her remarks, Dr. Barreto introduced the moderators, **Erika K. Kollitz, PhD**, and **Kai Huang, PhD**, who were joined by an esteemed panel: **Eric C. Ford, PhD**, **Jean M. Moran, PhD**, **Jennifer M. Pursley, PhD**, **Kalpana M.**

Kanal, PhD, and **Young Lee-Bartlett, PhD**. Drs. Kollitz and Huang guided a lively and insightful discussion with a series of prepared questions for the panelists, who shared their personal experiences and expert advice on navigating the challenges women face in the medical physics profession. Attendees were given invaluable guidance on leadership, career development, and strategies to overcome obstacles in the field.

Following the panel, attendees participated in round table discussions centered around the following key questions:

- How do you define leadership, and what does it mean to you? How can you be a leader without a formal title?
- What would be your biggest concern about taking on a leadership role? What hinders women from achieving leadership positions, and how can we help each other move beyond these hindrances?
- What qualities best describe the women leaders you know today? Is there a way you can apply those qualities to how you lead every day?
- What leadership role would you like to have in the short, medium, and long term of your career?

Each table was assigned a leader to guide the meaningful discussions. At my table, we explored all the questions, but our conversation mainly centered on the second one. The group was a diverse mix of women at various stages in their careers, which led to a discussion about the shared challenges we all face. The diversity of perspectives made the conversation particularly impactful, as we found common ground in our experiences. As our time together came to an end, we all wished we had more of it.

On behalf of the WPSC, we extend our heartfelt thanks to all the attendees, speakers, and sponsors. Events like this wouldn't be possible without your support and participation. Your dedication helps advance the growth and success of women in medical physics, and we look forward to continuing these important conversations together. ■

Special Interest Feature: Women's Professional Subcommittee

WOMEN IN INDUSTRY: MY PERSONAL JOURNEY

Young Lee-Bartlett, PhD | Elekta

My experience in industry has shown me the versatility of medical physicists and the variety of roles available, from technical positions in research and development, engineering to management, education and even sales!

Since completing my PhD in 2003, I've enjoyed a fulfilling career in the clinical world as a medical physicist, working in both the UK and Canada, until I transitioned into industry in 2020. At large institutions like The Royal Marsden NHS Foundation Trust and Sunnybrook Hospital, I had the opportunity to not only hone my skills as a clinical physicist but also mentor students, contribute to publications, and teach courses. I also served in various capacities in organizations like COMP, including a six-year tenure on the Executive Board as Treasurer. Additionally, I chaired the COMP ASM 2017 conference and worked as a registrar for the University of Toronto's Physics Residency program, participating in the hiring committee for residents across five affiliated hospitals throughout the greater Toronto area.

Initially, the way I "work-life-balanced" (or unbalanced) was to keep my home and work lives separate. I truly believed I was great at compartmentalizing and that this was best for my career path. However, I eventually realized that these aspects of life are interconnected and that, as hard as I tried to keep them separate, it wasn't possible as there are only so many hours in a day and I was making



compromises as a clinical physicist who also manages a busy home life with teenage children and aging parents. I've learned that my career demands and personal growth are deeply intertwined and unbeknownst to me, I was making compromises in all aspects of my life.

My transition began when my dad became ill in 2013 and I went through a lengthy journey deep into the healthcare system as I advocated for his care through different departments. With this, came a yearning for a career change and learning of the bigger healthcare system that led to completing a Global Executive MBA in Healthcare and Life Sciences at Rotman in 2020. During this time, a chance call from a recruiter through LinkedIn led me to move into industry. Although I was initially hesitant about a role in Quality Assurance (QA) (the job that the recruiter was looking to fill for Elekta), I soon discovered that we can be greatly influenced by job titles and descriptions, which can be very limited depending on who wrote them and for what purpose or situation. I have learned in any job, what matters more is how you approach and shape

the role and not so much the job description that you initially apply for.

Over the past four years working for Elekta, I've been amazed by the diverse career paths available and the opportunities they offer both women and men. Entering the industry with a background in clinical physics, I initially found the transition daunting. The industry world seemed foreign compared to what I had been trained to do in a medical physics department within a hospital environment. Despite my reservations, I accepted the challenge and went into the job with an open mind, which has led to significant personal and professional growth. In my current role as a Principal Medical Physicist in product management within the workflow software, my responsibilities extend way beyond the work within product management. I am currently working with teams in marketing, sales, R&D, education, training, and many more both regionally and globally. I am also heavily involved in the company's diversity, equity, inclusion, and belonging (DEIB) initiatives, particularly with my role in the Women's Initiative at Elekta (WI@E), where I am a board member. Many of the issues I have seen within medical physics such as lack of women in higher leadership positions are mirrored in industry. This isn't just within STEM jobs but also in sales and management roles. This was initially surprising to me, but I have been fortunate to have been a part of groups like CWC-IDEA, that have provided me with more knowledge, experiences, and allies such that I feel

WOMEN IN INDUSTRY: MY PERSONAL JOURNEY, Cont.

equipped to help move both my field and my working place forward for the better, which is very exciting and rewarding.

My experience in industry has shown me the versatility of medical physicists and the variety of roles available, from technical positions in research and development, engineering to management, education and even sales! Furthermore, it has shown me what it truly means to have work flexibility and helped me improve my time management skills as I now work from home. While some may worry about maintaining clinical skills during a career transition into industry, I've found that my knowledge and skills have strengthened, though this may be very dependent on one's

experiences and the job role. Although I might need to refresh certain technical skills if I ever decide to return to the clinic (like working to operate a linac, Gamma Knife, water tank etc.), I truly believe that my deeper understanding of medical physics, along with my enhanced project management, networking, and soft skills, will be a greater asset to a clinical department than merely refreshing my skills in operating software and hardware.

Working in industry has also broadened my perspective on what it means to be a medical physicist, which varies significantly across roles and centers. While I sometimes miss the direct patient interaction that I had in my clinical role (I had always been

fortunate to work within sections where there was a significant interaction with patients), I'm grateful for the opportunity to explore this new side of medical physics. Ultimately, whether in a clinical or industry setting, finding a role that aligns with your passions and values is critical and crucial in terms of getting the most of one's job. If a job doesn't meet your expectations, whether it is in the clinic or in industry, I think it's important to have the confidence to communicate this to your team and/or manager and be open to or seek out opportunities such as exploring new projects within your department or hospital, getting involved with volunteer organization, or even exploring new roles. ■

Special Interest Feature: Women's Professional Subcommittee

FEATURED PHYSICIST: MARYAM MASHAYEKHI, PHD
Emily Draeger, PhD | Yale School of Medicine

Maryam Mashayekhi, PhD, is a medical physicist at Mayo Clinic in Rochester, MN. She serves as the Physics Advocacy Chair for the Society for Women in Radiation Oncology (SWRO) and is a member of the AAPM Women's Professional Subcommittee. She earned a bachelor's degree in physics from Arak University in 2008, followed by a master's degree in photonics from Iran University of Science and Technology in 2011, and a PhD in photonics from Oklahoma State University in 2019. She completed a postdoctoral fellowship at UT Southwestern, focusing on the applications of AI in medical physics, with her work on the clinical implementation of an AI-based 3D dose prediction model winning the Best in Physics Award at the 2021 AAPM Annual Meeting. Following her post-doctoral fellowship, Dr. Mashayekhi completed her residency at the University of Maryland, Baltimore, and joined the Mayo Clinic in 2023. Her work currently focuses on



orthovoltage x-ray commissioning for minibeam radiation therapy in preparation for a phase 1 clinical trial.

How did you discover medical physics, and what drew you to the field?

I've always been passionate about applying physics to the medical field. It wasn't until later in my studies that I discovered medical physics. During an internship in the radiation oncology department at UT Southwestern Medical Center, I learned about medical physics and realized the potential for transitioning into this field.

What do you enjoy most about medical physics?

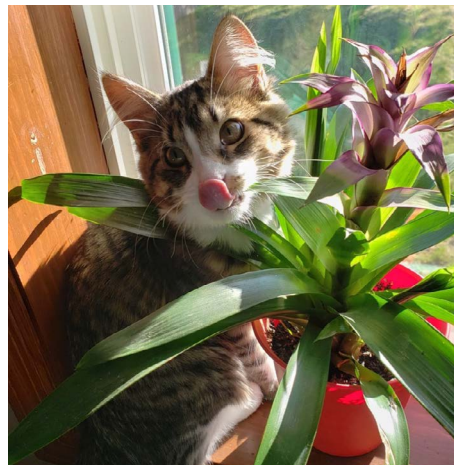
I enjoy consults and interacting with patients. Their improvement, pain relief, and enhanced quality of life following treatments is truly heartwarming.

Can you tell us more about SWRO, and how you became involved with the society?

SWRO's mission is to promote gender equity and advocate for women and other gender minorities. Within the Physics Advocacy Subcommittee, we focus on enhancing the presence of physics in SWRO, project involvement, recruitment, and more. Physics residents can apply for any position outside of physician advocacy (SWRO leadership positions are limited to medical and physics residents), and physicists are welcome in any subcommittee. Additionally, the Event/Membership Committee could benefit from the perspectives of physicists to boost recruitment at AAPM and other physics meetings. Other opportunities include roles as event and project leads, with projects centered on advocacy, research, mentorship, DEI, and more. SWRO is open to increasing collaboration with AAPM.

You became the Physics Advocacy Chair for SWRO as a medical physics resident. Do you have any advice for other residents, students, and trainees looking to get involved in AAPM or other societies?

I began my collaboration with SWRO last year as a second-year physics



In her free time, Maryam enjoys spending time with her pets

FEATURED PHYSICIST: MARYAM MASHAYEKHI, PhD, Cont.

resident. Through my involvement, I've had the privilege of meeting many incredible radiation oncologists and radiation oncology residents.

Expanding the presence of physics within the organization is a priority. Therefore, I recommend that medical physics trainees and residents

consider joining SWRO if they want to help promote women and gender minorities, while also enhancing their leadership and networking skills. SWRO also offers valuable mentorship opportunities for physicists. I would be more than happy to answer any questions you have and connect you with the SWRO team.



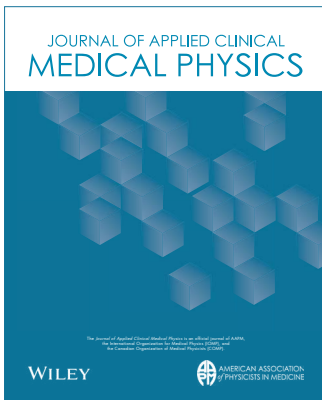
Maryam in her element at work



What activities do you enjoy outside of work?

I love nature and art. I enjoy hiking with my puppy, working out, painting, and doing crafts. Every few months, I aim to learn a new skill or develop a new habit outside of work. Next on my list is improving my pickleball skills! ■

**American Association of Physicists in Medicine
Call for Editor-in-Chief of the *Journal of Applied Clinical Medical Physics***



The *Journal of Applied Clinical Medical Physics (JACMP)*, a fully open access journal of the American Association of Physicists in Medicine (AAPM), is seeking a new Editor-in-Chief with a three-year initial appointment starting January 1, 2026. This position offers a unique opportunity to shape the future of AAPM's medical physics publications, ensuring the JACMP's highest scientific integrity, quality, and global impact.

The Editor-in-Chief's key roles are to provide strategic vision and leadership for the Journal and to oversee the editorial and peer-review process, maintaining the highest standards for scientific excellence and innovation. Responsibilities include leading the JACMP Editorial Board, representing the Journal on international platforms, collaborating with AAPM's publisher and AAPM publishing staff for efficient journal production, and serving as a voting member of the AAPM's Journal Oversight Committee. This appointment is fully remote with administrative support and publishing tools provided by the publisher and AAPM publishing staff. An honorarium will be provided by AAPM.

Additional Information

This search is being conducted by the AAPM Journal Editor Search Task Group (TG428). Please contact EditorSearch@aapm.org for further information.

Search Timeline

• Now – December 15, 2024	Call for applications, initial reviews of candidates
• January – April 2025	Candidate shortlist and interviews
• May – June 2025	Search Committee Recommendations
• July 2025	Approval of appointment by AAPM Board
• October – December 2025	Onboarding for effective Editor transition
• January 1, 2026	Appointment as Editor-in-Chief

A detailed position description can be found [here](#).

Special Interest Feature: Women's Professional Subcommittee

MENTORSHIP/SPONSORSHIP TOPIC: LETTERS TO A PRE-SCIENTIST

Samantha Hedrick, PhD | Thompson Proton Center

The LPS website describes their mission as: "Inspiring Students to Explore a Future in STEM. Letters to a Pre-Scientist connects students to STEM professionals through snail mail to broaden students' awareness of what STEM professionals look like and do at work and inspire all students to explore a future in STEM."

In 2023, I attended a meeting of the Women's Professional Subcommittee (WPSC) in Houston, TX, where I was introduced to a program called "Letters to a Pre-Scientist" (LPS). The WPSC includes a standing agenda item for outreach opportunities, so another member brought up LPS as an option. I was so excited by the idea that I signed up on their website immediately after the meeting. The LPS website describes their mission as: "Inspiring Students to Explore a Future in STEM. Letters to a Pre-Scientist connects students to STEM professionals through snail mail to broaden students' awareness of what STEM professionals look like and do at work and inspire all students to explore a future in STEM." When I was in high school, it took my favorite teacher, a woman who taught math, telling me that I could and should consider a career in science for me to even think about it. Despite my dad, uncle, and grandfather all being engineers, it was the encouragement from a woman I liked and respected that truly made me believe it was possible. I was thrilled at the thought of connecting with a student and possibly being the person who helped them consider a STEM career.



Founded in 2010, the LPS program operates with just three staff members, with seven on their Board of Directors. As a non-profit organization, they rely on donations and partnerships to keep the program going. Despite their small staff, by 2024 they are partnered with 30 teachers and over 1,500 students in grades 5 through 10 each year. These classrooms are spread across the U.S., reaching both rural and urban students. When I signed up last year, I was initially waitlisted, indicating there were more STEM professionals volunteering than there were students, although the number of classrooms signing up grows each year. All STEM professionals must complete a mandatory online training program before being matched with a student. The training highlighted several things I had never considered. For instance, many of these students may have never received a letter in the mail before. It was hard to imagine, but the training includes photos and videos from letter-opening parties teachers hold, showing how thrilled students are to receive "snail mail." Another surprising point was that letter writing might not focus solely on STEM. I initially assumed I would write about my experiences and job, while the

student would discuss their schoolwork and career ideas. However, the training emphasized that students are interested in learning about many aspects of their pen pal's life and may want to share quite a bit about themselves. The training covers how to handle personal questions, build a relationship, and address issues if a student shares something the teacher should be aware of. Additionally, the training helps STEM professionals create a middle-school-friendly profile. They assist in crafting a job description that is accessible without being patronizing. For example, my job description was: "My job is to guarantee the safety of patients in a clinic where we use protons—particles smaller than an atom (subatomic) and moving at almost half the speed of light — to kill cancer cells and protect healthy organs." They also ask for your hobbies and interests outside of work to help match you with a student. The training included articles to read, basic activities to complete, and videos to watch. Overall, it took me several hours to complete but they give you plenty of time and the interface was user-friendly.

As I mentioned, I was initially waitlisted, which was disappointing, but I later received an email last autumn stating that a STEM mentor had dropped out and a student needed a new pen pal. I was strangely nervous but very excited. LPS provides themes for each letter to guide both mentors and students with recommended topics. It's not a prescriptive list but offers ideas to get started. LPS recommended that, even though I

MENTORSHIP/SPONSORSHIP TOPIC: LETTERS TO A PRE-SCIENTIST, Cont.

was being paired after the initial letters went out, to use the themes from the first letter for my introduction. The training included tips and tricks for letter writing, such as using pictures and doodles to illustrate ideas, so I felt prepared to write my letter. Similar to developing your description, it helps you write at a middle-school level without sounding juvenile.

For my first letter, I introduced myself to my pen pal, included pictures of myself from college and my job, and included photos of a cake I had recently decorated. I explained my job and shared a bit about my journey. I asked her questions based on the letter theme prompts. I have terrible handwriting, so I typed my letter, but LPS encourages handwritten letters if they are legible. The letter ended up being about two pages long, including the photos. I uploaded it to the website and mailed a copy through "snail mail."

The LPS website has photos and descriptions of the letter-opening parties in the classrooms, and the teachers have activities for the students, such as researching their pen pal's college or job, and discussing their own themes. The training explains that these parties are very important to the students and it's crucial that each student have a letter to open, so LPS is stringent about making sure letters are uploaded and mailed in time.

A few weeks later, I received the first letter from my pen pal. I'm guessing I was more excited to receive her letter than she was to receive mine. She told me all about her classroom, her career aspirations, and asked a dozen questions. I was convinced I had the smartest, friendliest, and most accomplished middle schooler ever. She sounded so accomplished - I was shocked. It made me think back to my days in middle school and I don't think I had her drive at that age. I read her letter several times over the next week before writing my second letter. While I used the theme prompts, I mostly focused on answering her questions and asking more of my own. Her second letter was even better, with more details about her life, including how excited she was for the upcoming winter break. She shared struggles she was facing in the classroom, which I could relate to well, giving me the chance to share my own experiences. I told her about negative experiences I had faced in STEM and how they shaped my career and my personality. I never imagined I would be sharing my life experiences with a middle schooler, but I hoped it could help her persevere. It was an interesting opportunity to reflect on my life and think about when and how certain decisions in my life were made. The math teacher that encouraged my interest really shaped my life, and she probably has no idea the positive impact she had on me. I don't assume that I will shape anyone's life, but it

is humbling to think about the small things that make such a difference. We exchanged four letters over the course of the school year, and I loved every moment of writing and reading. LPS encourages mentors to send small items to their students if they wish. In my final letter, I included some proton therapy swag for fun.

I'll never know what becomes of my pen pal, you're not allowed to send personal contact information, but I like to think that she'll go on to pursue her dream career and be an accomplished young woman. LPS shared feedback from my pen pal and she told her teacher: "I think my pen pal really connected with me in ways a stranger I feel like wouldn't and she would make me feel better about situations that were hard that she went through herself in a similar way. I would get really excited as well to read her letter because her response came from her heart not in like a whatever type of way she actually tried to have genuine conversation with me which was nice." Needless to say, I was in tears. I've already signed up to participate this school year and I really hope I get matched. I encourage anyone interested to sign up, I truly believe it's an excellent opportunity to reach students and get them interested in STEM. I also genuinely believe it will have a positive impact on you, too.

<https://prescientist.org/> ■

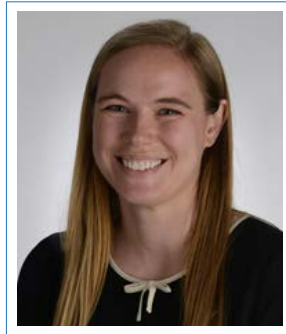
Special Interest Feature: Women's Professional Subcommittee

BOOK REVIEW: THE END OF YOUR LIFE BOOK CLUB BY WILL SCHWALBE
Karolyn M. Hopfensperger, PhD | University of Michigan

Throughout the book, classic works by Louisa May Alcott, T.S. Eliot, C.S. Lewis, and Lewis Carroll make appearances alongside the more modern works of David Sedaris, Toni Morrison, and Khaled Hosseini. And isn't that itself a comment on life? It appears, through their book club, the Schwalbes have learned to embrace and learn from the past while remaining focused on the present and all the little enjoyments that can come from living in the moment.

The University of Michigan's Radiation Oncology department has an Equity and Wellness Library located in a central walkway of the department. Employees in the department are welcome to "check out" a book to read. It was here that Will Schwalbe's *The End of Your Life Book Club* (Random House, 2012) sat, ready to be read by any person intrigued enough by the title. A book club about the end of your life? At the end of your life? A book club about books that involve the end of your life? After finishing the book, the titular book club refers to the informal "club" that author Will Schwalbe and his mother, Mary Anne Schwalbe, form by reading books together during her pancreatic cancer diagnosis and two-year treatment journey.

Though published in 2012, this book remains relevant as a guide to better understand the thoughts and feelings of patients and their families as they receive treatment for cancer. Many readers will recognize that the pancreatic cancer diagnosis revealed in the first several pages will lead to

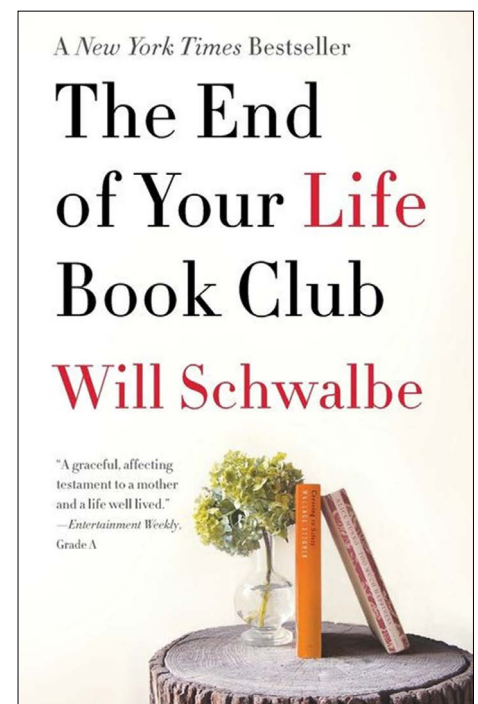


death, but the story never has the impending sense of doom that many other works dealing with cancer have. Mary Anne fights cancer with almost a quiet understanding that her time is running out, and Will describes how he seems more aware of the time slowly slipping away than Mary Anne does. A major theme of the book is making sure that time spent with dying loved ones is not wasted, even if the time is spent sitting quietly and talking. While this book deals with many of the challenges that cancer patients face, it can easily be applied to other situations in which people find themselves running out of time with their loved ones.

Like most memoirs about family members fighting cancer, this one begins with Will describing Mary Anne's initial fatigue that just won't go away. At first, as is the case with so many patients, the signs are written off, ascribed to recent travel and an exhausting schedule. A family vacation, which includes a flurry of activity, is spent happily, with only a minor notice taken of Mary Anne's weight loss and weariness. The first books in book club become those books discussed on vacation, On

Chesil Beach by Ian McEwan and *Appointment in Samarra* by John O'Hara, which mark the last moments of "it might be nothing" before it becomes very much something: terminal cancer.

The books read and discussed by the Schwalbes during treatment provide a means of escape, and in Will Schwalbe's case, provide a starting point to discussions with his mother that may not have happened organically. A comparison between the length of Thomas Mann's works *Death in Venice* and *The Magic Mountain* helps provide context for the need for the Schwalbes to pace themselves and determine which routines and events are important to Mary Anne and which can be removed for the sake of physical and mental wellness. With Mary Anne planning her schedule



BOOK REVIEW: THE END OF YOUR LIFE BOOK CLUB BY WILL SCHWALBE, Cont.

around wanting to make it to the next chemotherapy appointment, the next birthday, the next dinner party, etc., Schwalbe describes these events as mile markers in Mary Anne's journey. Interwoven with these medical and social appointments are the books read by the mother and son. Towards the end, as Mary Anne becomes weaker and weaker, dinner parties are exchanged for quiet nights and book discussions, but she eventually becomes weak enough that even reading is tiring. A reader unprepared for the dark inevitability of a pancreatic cancer diagnosis may become upset upon reading that, as she grows weaker and weaker, she stops eating. "Just eat!" someone unfamiliar with cancer might say, not realizing that end-of-life care involves honoring patients' wishes and helping them spend their last moments with dignity.

Another small, poignant moment of sadness in the book is the description of the Mark Morris production of *Romeo and Juliet* by William Shakespeare, which Mary Anne attends just before deciding whether to pursue clinical trial enrollment after exhausting standard treatment options. In the Morris production, the friar saves both Romeo and Juliet by alerting Romeo that Juliet is sleeping, not dead, and the couple ends up living happily ever after. The moment when Mary Anne asks Will if he knows what happens and then spoils the ending is both funny and heart-wrenching. Funny, because she seems so excited and happy that the story is re-written with a happy ending, but heart-wrenching because Will and Mary Anne know that her story will

not have the same surprise revision. Mary Anne's decision to not enroll in a clinical trial means that she no longer has treatment options and has entered end-of-life care. Schwalbe writes about greeting the decision with a desire to create lasting memories during her good moments while describing the cancer noticeably allowing fewer and fewer of those moments

The book becomes difficult at times, but Schwalbe's writing is very descriptive and gripping. There are some points in the story where he becomes dragged down with his own story, when most readers just want to get back to Mary Anne. Schwalbe does a great job of capturing the feelings and emotions of the loved ones who accompany cancer patients to appointments, remind them to ask questions, and sit with them during their last moments. He writes about wanting to ask his mother specific questions about her past but then forgetting to ask them while talking with her about other things. Many can relate to looking back on conversations and wishing them to have gone differently.

Throughout the book, classic works by Louisa May Alcott, T.S. Eliot, C.S. Lewis, and Lewis Carroll make appearances alongside the more modern works of David Sedaris, Toni Morrison, and Khaled Hosseini. And isn't that itself a comment on life? It appears, through their book club, the Schwalbes have learned to embrace and learn from the past while remaining focused on the present and all the little enjoyments that can come from living in the moment. *The End of Your Life Book Club* almost invites readers to

think about which books they might be interested in reading and discussing if they knew their lives were ending. Not all of them will be classic literature with profound points, some will be purely for pleasure and enjoyment.

The only point of criticism that could be noted about the memoir is that Schwalbe writes his mother as an almost a saintly character. Mary Anne never loses her temper, never has a moment of rudeness with strangers, never stops trying to support others in more difficult situations. This may lead the reader to assume that other patients with cancer will react the same way to their own terminal diagnoses, when in reality, patients react to cancer diagnoses in a spectrum of ways. Giving patients the space to be angry and sad is an important part of providing care. The reader is advised to not compare future patients with Schwalbe's mother, though her strength and steadiness should certainly be admired.

What makes this book stand out from other cancer memoirs is how the books in the book club set the tone for the events in Will and Mary Anne's life. Some of the books are funny, some are sad, some help Schwalbe deal with his emotions as he watches his mother change throughout her treatments. Many who have cared for loved ones fighting cancer can relate to the watchful eye Schwalbe seems to have on his mother as he describes noticing that she has lost weight, seems to be tired, or even, in another moment of dark humor, looks kind of awful in her new wig (and then describes how he feels bad when she no longer wears it). No person is

BOOK REVIEW: *THE END OF YOUR LIFE BOOK CLUB* BY WILL SCHWALBE, Cont.

perfect, and caregivers and patients alike make mistakes when it comes to cancer treatment. Overall, the book may prove a comfort for some and a sad reminder for others, but it provides another useful perspective that can

help people better understand what patients and their families go through during treatment.

For devoted readers, the appendix at the end of the book contains a

list of all the books that Schwalbe and his mother read throughout her treatments. If one were so inclined, the list might function as a starting point for one's own book club. ■



Mark your calendar and make plans to attend.
**Registration opens:
DECEMBER 4**



AAPM 2025

JULY 27-30 | WASHINGTON, DC
67TH ANNUAL MEETING & EXHIBITION



COMING TOGETHER TO FORGE AHEAD
IN MEDICAL PHYSICS

COMING IN JULY 2025:

Mark your calendar for the 4-day Annual Meeting and
3-day Exhibition, July 27-30, 2025 in Washington, DC — all kicking off on Sunday morning!

SUN

- 8:30 am Keynote!
- Exhibit Hall Opens at 9:30 am
- Evening Kick-Off Party!

MON

- Coffee with Exhibitors
- President's Symposium
- All Day Sessions

TUES

- All Day Sessions
- Exhibit Hall Closes at 4:30 pm
- Gather for a Closing Party

WED

- All Day Sessions
- Keynote

AND MORE!

- Daily Poster Session Discussion
- Student Events Throughout the Week
- Vendor Driven Talks and Product Showcase

The Inaugural Sexual and Gender Minority Subcommittee Brunch

SEXUAL AND GENDER MINORITY SUBCOMMITTEE (SGMSC) REPORT

Written on behalf of the Sexual and Gender Minority Subcommittee (SGMSC)

Introduction

For those still unfamiliar with the Sexual and Gender Minority Subcommittee (SGMSC) we are an affinity group under the Equity, Diversity, Inclusion Committee (EDIC) established November 2021. Our mission is best described by our charge which includes: identifying and addressing the needs facing LGBTQIA+ medical physicists and trainees, promoting awareness and providing resources to support Equity, Diversity and Inclusion (EDI) initiatives relating to the LGBTQIA+ community, engaging with other under-represented minority groups within the AAPM to foster and promote intersectionality, and increasing representation and visibility through recruitment and mentorship efforts at various levels in training/education. Led by SGMSC Chair, **Toni M. Roth, MS** and Vice Chair, **Sunshine Osterman, PhD**, the SGMSC subcommittee currently consists of 23 voting members and 10 guest members (and is still growing!). We take pride in serving our AAPM membership and building relationships with community partners who are providing much needed services to marginalized and underrepresented people. AAPM's most recent Strategic Plan 2025-2027 highlights the role medical physicists play in improving Health Equity through recruitment of a diverse workforce and delivering care to underserved communities. As part of that mission, engagement with community partners is essential to build trust among the community we serve, highlight AAPM as a welcoming and safe space for all, and bring a greater awareness of our subspecialty to the local community.



A group picture of all the attendees of the inaugural AAPM SGMSC Brunch

The Inaugural SGMSC AAPM Brunch

The inaugural AAPM Sexual and Gender Minority Subcommittee (SGMSC) Brunch was hosted on Monday, July 22, 2024, at the 66th Annual Meeting. Invitees gathered at the Bonaventure Brewing Co. in Los Angeles and were greeted by the inviting tones of possibly the best brunch playlist to ever exist (check it out at [Spotify Brunch Playlist](#)) and the smiling faces of SGMSC members.



Charlotte Ferworn, PhD
Candidate
Toronto
Metropolitan University



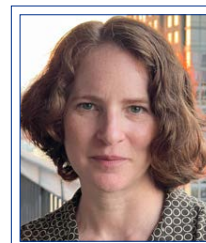
Sarah Aubert, PhD
Princess Margaret Cancer Centre



Toni M. Roth, MS
Memorial Sloan Kettering Cancer Center



Henry J. Meyer, PhD Student
University of Texas MD Anderson Cancer Center



Sunshine Osterman, PhD
New York University
Langone Health

SEXUAL AND GENDER MINORITY SUBCOMMITTEE (SGMSC) REPORT, Cont.

While this event was designed to invite the AAPM community to engage with and learn more about the SGMSC and its members in an inclusive and fun environment, part of the event's objectives included shining a light on local non-profit community organizations. This year's community organization was [ProjectQ](#) (ProjectQ), whose goals include providing a safe space for LGBTQIA+ youth, providing free mentorship workshops to LGBTQIA+ individuals with housing insecurities, providing free gender-affirming haircuts, and resources on harm reduction to reduce the risk of fentanyl overdose.

Over breakfast food and mimosas, AAPM members at the SGMSC brunch were able to mingle with ProjectQ organizers and ask them about their mission and current projects. ProjectQ Founder & Executive Director Madin Ray Lopez (they/them) shared the mission of ProjectQ and resources for attendees to share with their local communities as well as fundraising initiatives within their organization.

In exchange, AAPM members in attendance were able to share information about medical physics as a field and



Madin Lopez (they/them) is the Founder and Executive Director of ProjectQ. Born and raised in Los Angeles, Madin began doing hair in high school. They knew very early on that they wanted to do hair for a living because it was a reliable career that also allowed them to use their creativity. Having experienced much trauma as a child, Madin made it their life's mission to help LGBTQIA+ youth. They founded ProjectQ in 2012 after realizing this mission and have since devoted their free time to making this dream become a reality. Madin purchased a vintage airstream trailer and created the mobile self-esteem building hair salon 'The Hairsteam.' And in June 2018 Madin opened The ProjectQ Salon & Community Center. Madin hopes to prove to the youth and to themselves, that tenacity speaks louder than circumstances. ([ProjectQ](#))



The SGMSC Brunch Organizing Committee (From left to right, Charlotte Ferworn, Sarah Aubert, Henry J. Meyer, and Toni M. Roth. Not pictured: John Olmstead)

SEXUAL AND GENDER MINORITY SUBCOMMITTEE (SGMSC) REPORT, Cont.

AAPM as an organization. As medical physics is not a widely known field for those who are not already adjacent to the medical field, this event provided an important opportunity for AAPM and its members to reach members of the LGBTQIA+ community who are not already involved in medicine or medical physics.

We are incredibly thankful for ProjectQ and all the AAPM members who helped to make this year's SGMSC Brunch Event a success. We are actively in the process of researching non-profit community organizations based in Washington DC for next year's AAPM Annual Meeting. Our mission with the SGMSC Brunch is to partner with and highlight the work of a local group that provides community support to Sexual and Gender Minorities in the city where the AAPM Annual Meeting is held. Showing up for and supporting our LGBTQIA+ patients and colleagues is in line with the strategic mission of our organization, and we couldn't be more proud to be members of the SGMSC.

SGMSC Travel Grant

The SGMSC continues to grow in both membership and activity. This year also marks the inaugural awarding of the SGMSC Travel Grant. This merit-based award was created to support medical physics students and trainees' attendance to the AAPM Annual Meeting. This grant can be awarded to all members of the AAPM who have a demonstrated history of championing and/or supporting LGBTQIA+ equity. This year's awardees were Charlotte Ferworn and Henry Meyer.

Special thanks goes out to the SGMSC Brunch Organizing Committee (Sarah Aubert, John Olmsted, Charlotte Ferworn, Henry Meyer, and Toni M. Roth), to AAPM staff **Nick Wingreen** and **Mariana Gallo**, to EDIC Chair **Julie Pollard-Larkin**, and to WGEDIO Chair **Sandra Meyers**.

If you're interested in getting involved, check out the [AAPM Committee Ads!](#) ■

References

- AAPM 2024-27 Strategic Plan: <https://w3.aapm.org/org/objectives.php>
- AAPM SGMSC Brunch Playlist: <https://open.spotify.com/playlist/7mJkclno3a6Dp4GuoW57MB?si=93a2c5cf9ac8460f>
- Project Q: <https://www.projectq.me/>

Introducing SunCHECK[®] 5.0

The Connected Workspace for Higher Quality

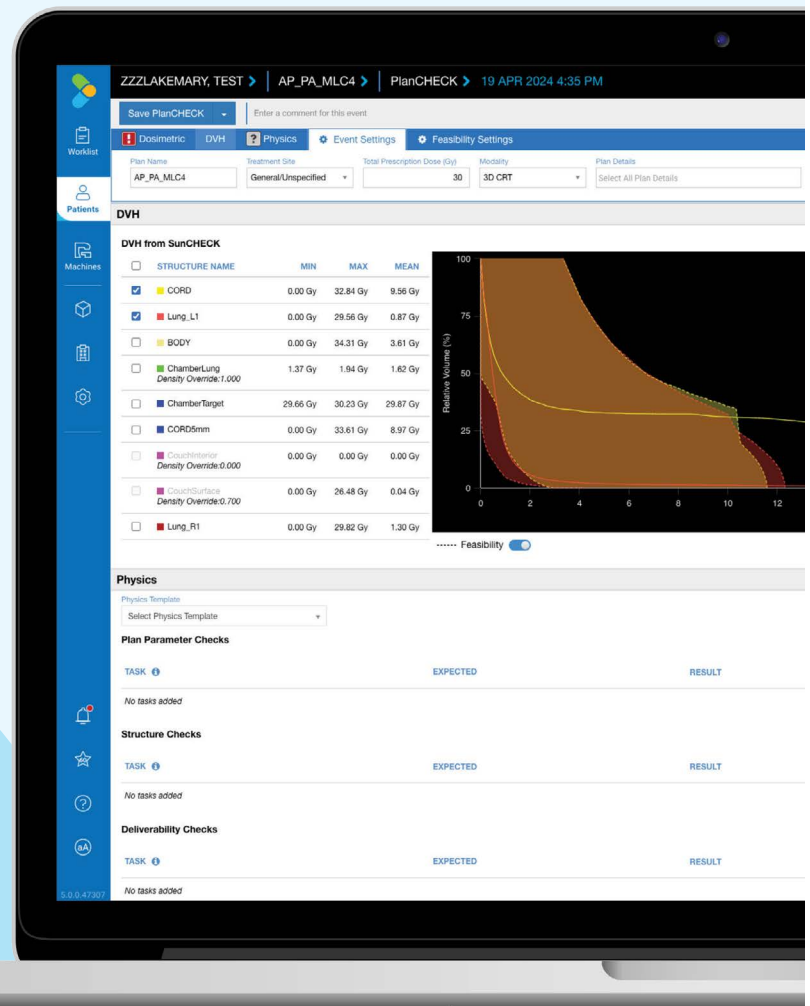


Aggregate insights, actions, and opportunities to drive continuous improvement in radiation therapy.

Featured enhancements:

- Plan complexity metrics
- Evaluation of plan feasibility per patient
- Enhanced TPS integration
- Refreshed UI with worklist focus

**Learn more &
request a demo.**



Highlights of the SDAMPP Coffee Break Discussion on “Disability and Accessibility of Medical Physics Residency Training”

AAPM ACCESSIBILITY SUBCOMMITTEE REPORT

The AAPM Accessibility Subcommittee (ASC), chaired by **Lindsay Jones, MS**, was formed in 2022 under the parent Equity, Diversity and Inclusion Committee and has been tasked to:

- Identify and address the needs facing medical physicists and trainees with visible and invisible disabilities that affect their participation in Medical Physics and AAPM.
- Promote awareness and provide resources to support EDI initiatives relating to the disability community.
- Increase representation and awareness of the disabled community through recruitment and mentorship efforts at various levels in training/education.
- Inform the Equity, Diversity and Inclusion committee of the concerns and needs of the disabled community with respect to any of their proposed equity, diversity and inclusion efforts.

Given the importance of increased accessibility in medical physics education, the ASC recently organized an SDAMPP webinar as well as a coffee break discussion focused on exploring the critical considerations surrounding accessibility in medical physics residency programs. The webinar consisted of three presentations and gave an overview of the challenges faced by physicists with disabilities, gave first hand experiences of physicists using accommodations in the workplace, discussed practical strategies for implementing ADA accommodations during residency, and also covered an overview of federal disability laws by an external law expert, Mary J. Goodwin-Oquendo, Esq.



Abby Besemer, PhD
University of Wisconsin

Written on behalf of the AAPM
Accessibility Subcommittee (ASC):

Lindsay Jones, MS, (Chair)
Natalie Viscariello, PhD (Vice-Chair),
Muhammad Ramish Ashraf
Abby Besemer, PhD
Megan Blackburn, PhD
Ahmed Eldib, PhD
Grace Eliason, MS
Shivani Gupta, MS
Krystal Kirby, PhD
Andrea Molineu, MS
Jessica Nute, PhD
Tia Plautz, PhD
David Sterling, MS
Brian Taylor, PhD
Victoria Ainsworth, MS
Hania Al-Hallaq, PhD
Kaelyn Becker, PhD
Jessica Fagerstrom, MEd, PhD
Mario Gallardo II
Alamgir Hossain, PhD
Erin Iredale, PhD
Barbara Marquez
TaoLin Qin



**Lindsay Jones,
MS, DABR**

MedPhysLindsay
Consulting

*“Introduction to
Disability and the ADA”*



**Mary Goodwin-
Oquendo, Esq.**

The Goodwin-Oquendo
Law Firm

*“Overview of the Federal
Disability Laws”*



**Jessica Nute,
PhD, DABR**

UT Health San Antonio

*“ADA Accommodations:
Implementation and
Interactive Process”*

AAPM ACCESSIBILITY SUBCOMMITTEE REPORT, Cont.

Following the webinar, an SDAMPP coffee break discussion was held among program directors to discuss best practices for handling disability and accessibility in residency training. The coffee break was moderated by **Brian Taylor, PhD**, and featured several panelists from the AAPM Accessibility Subcommittee including **Lindsay Jones, MS**, **Natalie Viscariello, PhD**, and **Jessica Nute, PhD**. This article will summarize some of the important topics discussed during the coffee break in the hopes of sharing this information more widely with medical physics educators interested in making their programs more accessible. In this summary, all content is paraphrased to respect privacy and the informal nature of SDAMPP coffee break sessions.

How should program directors communicate with applicants that they are open and willing to address accessibility challenges?

The panelists noted that one easy way to tell if an institution values disability inclusion is when accessibility information is posted clearly on their website. The panelists noted that institutions should list the accessibility considerations they already have in place and then also include a contact for additional questions or requests. For residency programs, it was also recommended that the statement in their MPRAP posting encouraging applicants from diverse and underrepresented backgrounds should explicitly include disability in that list.

How can we take into account accessibility needs while interviewing residents?

The panelists recommended that disability and accessibility should be covered as a part of the normal Equity Diversity and Inclusion (EDI) training provided to staff prior to interviews and should touch on what questions are appropriate and legal to ask and which ones are not. [The Job Accommodation Network \(JAN\) website](#) was recommended as a quality resource for navigating disability and accessibility during the interview process. Additionally, candidates should be given the opportunity to request accessibility accommodations for the interview process. It's important to emphasize that these requests are optional and will not have an impact on how the applicant is evaluated for the position in order to alleviate any concerns that the information could be illegally used against the applicant. For programs offering in-

person interviews, the program should ensure the venue is accessible, including wheelchair access, accessible restrooms, parking, and entryways. If the interview is virtual, ensure the technology platform is accessible to people with various disabilities, such as those using screen readers or requiring captions.

How should program directors make it clear to their current residents that they are willing to offer accommodations for current residents?

The panel recommended that programs could include a section in their handbooks on accessibility and also discuss with residents during their onboarding the process for requesting accommodations. It can also be helpful to provide examples of accommodation types (e.g. additional time on exams, flexible scheduling, access to accessible seating) provided in the past at your institution. Residents might also be hesitant to ask for help for many reasons including fear of illegal retribution or simply that they want to be treated like everyone else. Thus, the panel recommended that if program directors observe that a resident may benefit from some type of accommodation, they could reach out privately to them and let them know that these resources are available if that is something they are interested in pursuing.

How can we ensure resident privacy for those requesting accommodations?

The panel recognized that this can be very challenging especially in small programs where certain accommodations may be more obvious or seen as not fair to all residents. For example, if a resident needs more time during their oral exams, other residents may ask why that resident is allowed more time and they are not. The panel pointed out that it's very important to remember that it is illegal to reveal someone's disability status and thus they should be sure to not directly acknowledge that it is an accommodation. In this situation, the panel recommended that the program director could possibly state that some people "learn differently" or they could redirect their questioning and ask them if they think having more time for an exam is something that would help them as well. One panelist also shared that they believe that the stigma around disabilities has started to lift in recent years and there have been more people that are open and willing to discuss their disability and accommodations with

AAPM ACCESSIBILITY SUBCOMMITTEE REPORT, Cont.

others, so they are hopeful this trend will continue and we can have more open and honest discussions surrounding accessibility.

How can program directors best navigate when institutions push back against accommodation requests?

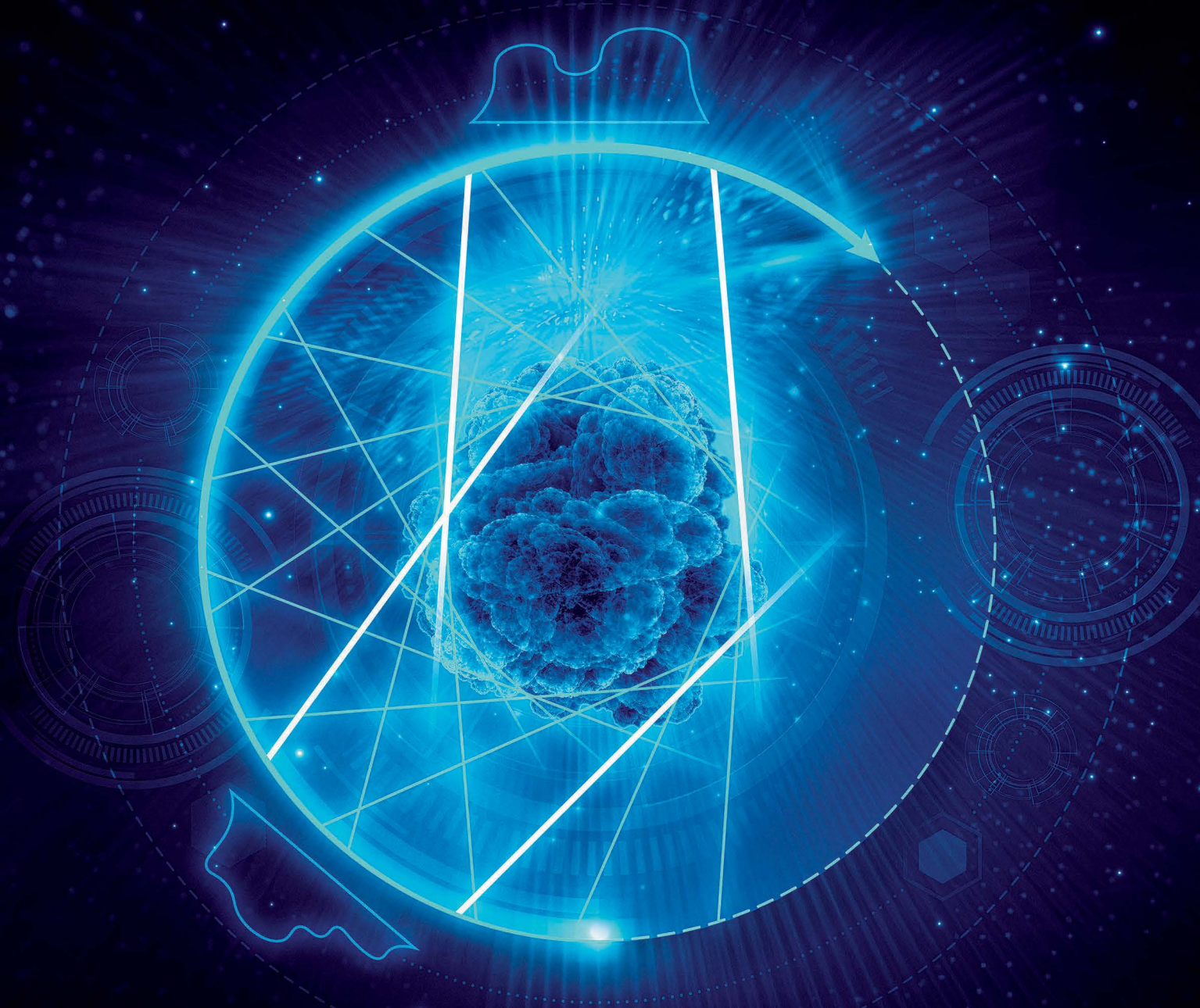
It was recognized by all panelists that this can definitely be a struggle and it can be especially challenging if the accommodation comes with additional costs (e.g. special desk/chair/IT equipment, extra seat while flying, extension of the program with extended salary due to illness, etc.). One audience member stated that they felt like the first response was always “no” from the institution so they found it helpful to not take that as the final answer and to expect to continue to advocate for accommodations. The panel stated that one strategy for challenging the institution's initial decision to decline requested accommodations is to describe how that accommodation will allow the employee to perform their job better. Programs can remind their institutions that accommodations are not just a department responsibility, but an institutional responsibility required by federal law to provide assistance that is not an undue burden. They can also be reminded that, if a reasonable accommodation is denied, the Office of Civil Rights (OCR) may initiate an investigation, which also could involve expense to the institution.

What should programs do if the accommodation request might cause an undue burden?

One specific scenario mentioned was how best to handle requests for program extensions due to extended illnesses and pregnancy. The panel recognized that this can be particularly challenging, especially since extending the program can require additional department resources, staff time, and resident salary. Also, the particular situation is very specific to the resident and the program, so it is challenging to give general advice to all programs. However, the panel recommended that for requests that might cause an undue burden to the staff or department, programs should work with the resident to see if there are any alternative approaches that may also work. There may be a middle ground that is acceptable to both the resident and the department. Most importantly, it was pointed out that it can be very helpful for programs to outline a formal policy about how these requests might be handled to ensure the program is prepared ahead of time.

In summary, creating an inclusive workplace where disability and accommodations are thoughtfully managed is essential for fostering a diverse and supportive residency environment. By proactively addressing accessibility needs, offering flexible solutions, and maintaining open communication, programs can empower all residents to thrive. ■

A TURNING POINT FOR ARC THERAPY



Introducing **RapidArc Dynamic**, a radical evolution in planning and delivery built to bring you highly expansive treatment flexibility.

Learn more at varian.com/rapidarc-dynamic

varian
A Siemens Healthineers Company

RapidArc Dynamic



2024 Emerging Leaders of Academic Medical Physics (ELAMP) Symposium and Workshops

SPECIALTY MEETINGS IN MEDICAL PHYSICS

It gave a strong sense of empowerment and responsibility about the future. ELAMP emphasized the critical role we play in shaping the future of academic medical physics, highlighting that it is not the work of one individual alone, but of someone supported by family, collaborations, mentors, and institutional support."

— 2024 Emerging Leaders Cohort Member



The 2024 Emerging Leaders of Academic Medical Physics Cohort

The second Emerging Leaders of Academic Medical Physics (ELAMP) symposium and workshop was held at the Department of Medical Physics at the University of Wisconsin School of Medicine and Public Health this August. This symposium and workshop brought scholarly-focused, early-career, diverse scientists together with visionary leaders and mentors, who are interested in shaping the future of academic medical physics. Through the transformative leadership of Department Chair, **Dr. Brian Pogue**, the event highlighted the past, present, and future of academic medical physics. It included a public science symposium of

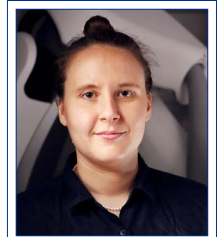
presentations from invited speakers and the emerging leaders. Additionally, the event offered discussion panels, laboratory tours, and workshops. These activities supported early career participants through mentoring and networking sessions, all themed around the future of the field.

Sixteen Emerging Leaders composed of PhD students, residents, early-career faculty, and research fellows from across the US and internationally were competitively selected and sponsored to attend the three-day symposium from August 21-23, 2024 in Madison, Wisconsin. This cohort was composed of PhD students, early-career faculty, and research fellows from across the US and internationally, reaching as far as Australia.

When asked about the application process, Emerging Leaders expressed that future applicants should not hesitate to apply, and upon acceptance, take time to think about their research for more constructive and insightful feedback at the symposium.



Meghan Koo, MSc
Toronto
Metropolitan
University



Tess Reynolds, PhD
The University of
Sydney



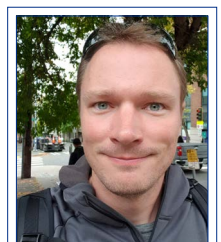
Clara J Fallone, PhD
University of
Calgary



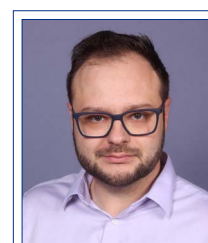
Dishane C. Luximon, PhD
University of
California, Los Angeles



James Sohn, PhD
The University of
Chicago



Nils Peters, PhD
Harvard Medical
School &
Massachusetts
General Hospital



Konrad P. Nesteruk, PhD
Harvard Medical
School &
Massachusetts
General Hospital

SPECIALTY MEETINGS IN MEDICAL PHYSICS, Cont.

Across the 3-day event, the 16 Emerging Leaders engaged with motivational invited speakers and curated panel discussions, painting a grand vision for the future of the field, road mapping how to build diverse and impactful teams, and emphasizing enthusiasm and empowerment throughout their future career. The 2024 ELAMP invited speakers included **Julianne Pollard-Larkin, PhD** (MD Anderson), **Thomas Foo, PhD** (GE Global), **Carolyn Anderson, PhD** (University of Missouri), **Georges El Fakhri, PhD** (Yale University), **Ron Kikinis, MD** (Harvard Medical School), **Beth Meyerand, PhD** (University of Wisconsin-Madison), and **Charles Thomas, MD** (Dartmouth College). The 4 panel discussions were anchored by the invited speakers and bolstered by members of the University of Wisconsin-Madison Department of Medical Physics Board of Visitors.

The overarching scientific theme of all the invited presentations during the symposium was: taking risks, and the big gain one can receive from daring to take a big leap that might bring the field forward. In the opening talk, **Dr. Brian Pogue** (University of Wisconsin-Madison) championed research centered on discovery and innovation, encouraging the Emerging Leaders to remain curious, proactive, and inventive throughout their future careers. **Dr. Julianne Pollard-Larkin**, with a level of enthusiasm unmatched, emphasized the importance of psychological safety for successful leadership training. **Dr. Charles Thomas** closed out the invited talks with a passionate presentation outlining an action guide for leaders in academic medical physics.

Highlights of the four panel discussions included tangible individual leadership skills that could be applied for career advancement now and in the future, as well as strategies to make meaningful and lasting changes on a larger scale. The discourse on open-source science also resonated strongly with the Emerging Leaders, ensuring future advancements in medical physics research remain accessible and reproducible.

In small group mentoring sessions, the Emerging Leaders had the opportunity to discuss their ideas and experiences with the senior faculty members. The sessions were targeted at strengthening research directions (Science Mentoring) and career development (Career Mentoring).

The Science Mentoring small group session was an invaluable opportunity to gain insights into research program development. Seasoned mentors, who have secured numerous prestigious grants, shared their strategies for preparing competitive proposals. The Emerging Leaders discussed the current state of their research programs and explored potential next steps. The mentors provided practical advice on identifying promising research directions, building effective collaborations, and leveraging institutional resources. The mentors' guidance on navigating the grant application process, from conceptualization to submission, was particularly enlightening. This session not only helped clarify the Emerging Leaders' research trajectories but also equipped them with tools to overcome funding challenges in medical physics.

Career Mentoring was undoubtedly one of the highlights of the event. The Emerging Leaders had a unique opportunity to reflect on where they are now and where they want to be. They were able to share these reflections with their peers and receive valuable feedback from the mentors – established leaders who have already navigated similar journeys. Mentors guided the Emerging Leaders in finding answers about how to reach their goals, who they should collaborate with, and which facilities would best support their growth. One of the most valuable aspects was hearing the mentors' personal stories, full of thoughtful insights, career pivots, and challenges they overcame. It was both inspiring and empowering, encouraging Emerging Leaders to chase their dreams with greater courage. These mentoring sessions also offered an amazing opportunity for networking, both with the mentors and other Emerging Leaders.

The Emerging Leaders showcased their research focus through 5-minute talks during the Symposium. Their research covered a wide range of impactful topics, from advanced imaging innovations in surgery and cancer treatment, to radiomics for disease classification, technology development for particle therapy, and novel radiotherapy techniques such as ultra-high dose rate particle therapy and AI-driven procedures. Additionally, a scientific poster reception was held to feature the presentations from both the Emerging Leaders and the Medical Physics graduate students from the University of Wisconsin-Madison. This setting particularly fostered

SPECIALTY MEETINGS IN MEDICAL PHYSICS, Cont.

interactions among all participants, allowing exchange of ideas and potential paths to collaboration. During this event, the three most outstanding posters from the Emerging Leaders were also recognized: **Dr. Tess Reynolds** for imaging innovations in advanced surgical theatres, **Meghan Koo** for CT-based Jacobian radiomics in COPD classification, and **Dr. Clara Fallone** for CT-based Jacobian radiomics in COPD classification, and Dr. Clara Fallone for in-vivo MRI usage in ω -3 fat quantification. Overall, the diversity of research brought forward by the trainees truly highlighted the expansive and evolving nature of medical physics, showing how the field is progressively pushing the boundaries within many branches in medicine.

Overall, this event was a unique opportunity to connect with mentors, obtain impactful feedback on one's research, and engage in discussion about critical topics in the medical physics field. It was wonderful to be welcomed into Madison and this epitome of medical physics research and development. Eligible participants are highly encouraged to apply to attend future events. Here are some of the key takeaways that this year's participants took from the event:

"Be where you can make the most impact"

"Focus on research that makes real impact and continue publishing to make yourself known even if you left academia (in case you want to come back later). Be willing to take risks if you want to succeed. Choose your institution wisely"

"It gave a strong sense of empowerment and responsibility about the future. ELAMP emphasized the critical role we play in shaping the future of academic medical physics, highlighting that it is not the work of one individual alone, but of someone supported by family, collaborations, mentors, and institutional support."

"Collaborate, think big and pursue actual science, get comfortable getting out of your expertise, so collaborate again"

"Instituting change both personally and within the field of medical physics is difficult, so take small steps one day at a time."

"Be brave in realizing your career goals and focus on innovation and the quality of your research."

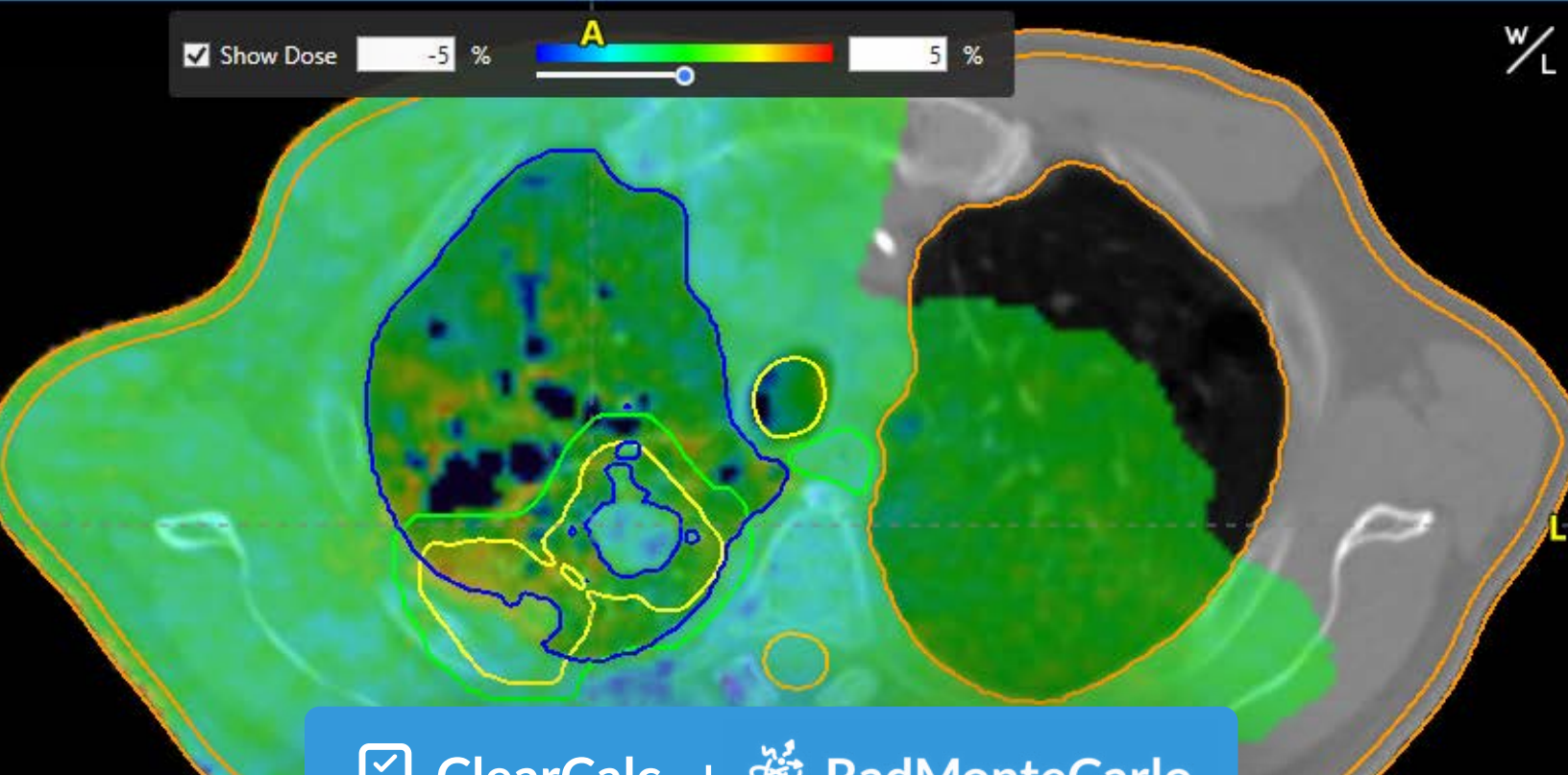
Thank you to the University of Wisconsin-Madison and the ELAMP Organizing Committee! ■



Brian Pogue together with the winners of the scientific poster competition. Left to right, Dr. Brian Pogue, Dr. Tess Reynolds (1st place), Meghan Koo (3rd place), Dr. Clara Fallone (2nd place), and William Thomas (Poster Session Coordinator)



The 2024 cohort of 16 Emerging Leaders at the Pyle Center Roof Reception overlooking the shores of Lake Mendota



PSQA Functionality is Here

Accomplish more with a single platform. Included with your standard subscription is support for a robust patient-specific QA program— with or without your phantom.

Log File Analysis

The log file delivery information is carefully reconstructed for an in-depth comparison of the delivered dose to original plan data.

EPID QA

Compares portal dose images acquired using a machine's MV imaging panel to predicted doses for valuable insights to ensure quality and safety.

RAD formation

[Read More on PSQA](#)

Abstract Submission Open for the 2025 APS Global Physics Summit

APS GMED UPDATE

The American Physical Society (APS) has traditionally held two major annual meetings. The March Meeting, held in early March, focused on soft condensed matter, biophysics, magnetism, and many other related topics. The April Meeting, held in early April, focused primarily on particle physics, accelerator physics, and astrophysics. For the first time this year, APS is holding both meetings at the same time in a single location! The 2025 Joint March and April Meeting is being referred to as the APS Global Physics Summit, and it will take place in Anaheim, CA, from March 16-21, 2025. This will be the largest physics research conference in the world, expected to bring together over 14,000 scientists from across all disciplines of physics.

The APS Topical Group on Medical Physics (GMED) has a presence at both the March and April meetings, as medical physics research spans topics that are part of both meetings. GMED has already planned for two invited sessions, to be held on Wed March 19. The first invited session is titled "Quantitative and Precision Game Theory Modeling in Hormone Sensitive Cancer" and the second is titled "Artificial Intelligence in Medicine," and both will feature interesting talks from APS and AAPM members.

There will also be several GMED sessions formed from contributed abstracts; every APS member who submits an abstract receives a presentation, and abstracts are sorted into sessions with related topics. AAPM members who are also APS members, or who have been considering joining APS, are encouraged to submit abstracts. While the abstract submission system was set to close on October 25, the deadline is often extended by up to two or three weeks, so please check to see if the system is still open [here](#). If you have any questions about how to submit your abstract to a GMED session, please reach out to Jennifer Pursley at jpursley@mgc.harvard.edu. The APS Global Physics Summit will be a great opportunity for AAPM researchers to meet a huge research community working on many topics impacting medical physics, and AAPM members are welcome to attend the meeting whether or not they are presenting. GMED will also staff an information booth on medical physics and participate in the graduate student career fair, and AAPM members are welcome to participate in those outreach activities. We hope to see many familiar faces at the largest physics research conference in the world! ■



Jennifer Pursley, PhD
Massachusetts General Hospital



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE

Cordially Invites You to Attend the
AAPM RECEPTION at the
2024 RSNA MEETING

Tuesday, December 3, 2024 | 6:00 PM – 8:00 PM

**Plaza Ballroom, Lobby Level
Hyatt Regency Chicago
151 E. Wacker Drive, Chicago, IL**

Light hors d'oeuvres

Sponsored by



Brachytherapy Content Agreed Between Vendors

UPDATE FROM IHE-RO

After years of deliberations around a common understanding of Brachytherapy planning content, the IHE-RO (Integrating the Health Care Enterprise- Radiation Oncology) has published two Brachytherapy content profiles to Trial Implementation:

- TPPC-Brachy (Treatment Plan Content-Brachytherapy) and
- TDRC-Brachy (Treatment Delivery Record Content-Brachytherapy).

This means that the proposed content of the DICOM plan and record objects have been agreed and vendors can do content development as outlined in the documents linked below. Following this, vendors will come together for a trial Connectathon to see if there are any remaining interoperability issues with the profiles.

- https://www.ihe.net/uploadedFiles/Documents/Radiation_Oncology/IHE_RO_Suppl_TPPC-Brachy.pdf
- https://www.ihe.net/uploadedFiles/Documents/Radiation_Oncology/IHE_RO_Suppl_TDRC-Brachy.pdf

TPPC (plan content) not only covers content for the DICOM RT Plan object but also RT Structure Set and additions to Ultrasound Images for successful sharing of the entire planning data set. Plan content is spelled out not only for HDR and PDR but also Temporary and Permanent Implants; vendors will specify which content that they are adhering to.

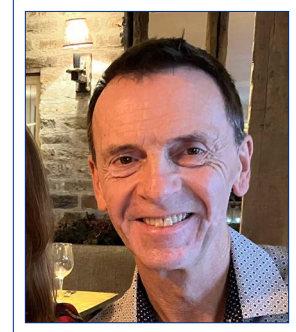
For users, this is an opportunity to include adherence to these profiles in their buying decisions. This is what IHE is all about: profiles are developed such that users can demand specific content or interaction behavior to ensure key interoperability is available in their department.

This is just the latest in IHE's profile development for Radiation Oncology. IHE-RO is an ongoing effort sponsored by AAPM to bring together users and vendors to identify data sharing or interaction pain-points. The group has already come up with agreed content and workflow solutions in the arenas of:

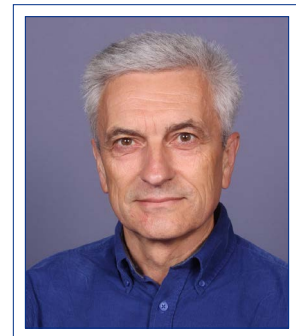
- Basic Structure Set, Plan and Dose content (BRTO-II)
- External Beam Plan and Record Content (TPPC, TDRC, TTPC-Ion, TDRC-Ion)
- Sharing Fusion/registration objects (MMRO-III)
- Deformable Registration content (DRRO)
- Treatment Management to Treatment Delivery System interaction (TDW-II)
- Treatment Summary sharing with Hospital Information Systems (XRTS)

A full list of the IHE-RO profiles can be found [here](#).

If you wish to learn more about IHE-RO's activities, please contact Jill Moton at AAPM (jill@aapm.org). ■



Jim Percy
Co-Chair DICOM Working Group 7[RT]



Yury Niatsetski
Elekta AB and Chair of DICOM Brachy Working Group

Could This Happen to Me? Enhancing Patient Safety Through Discussion of Medical Events

UPDATE FROM THE AAPM WORKING GROUP ON MEDICAL ERRORS IN BRACHYTHERAPY (WGMEB)

The Working Group on Medical Errors in Brachytherapy (WGMEB), under the Patient Safety Subcommittee (PSSC), will be publishing monthly case studies on its webpage in an ongoing project entitled, "Could this happen to me?". A short article will be drafted monthly by some members of the working group and then vetted by the entire WGMEB prior to posting. Once approved, this document will be uploaded under the WGMEB webpage, where the meeting minutes are posted (<https://www.aapm.org/org/structure/committee/infogroup.asp?view=6171>). These documents will be available to all AAPM members for review, suggestions, and comments.

These cases will be gathered by members of the WGMEB, who will extract errors or events from publicly available reports and highlight the following items:

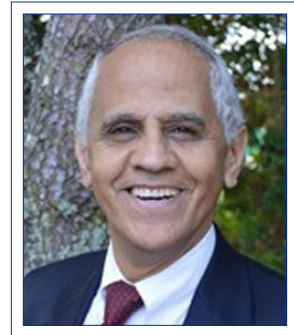
- Type of procedure
- Type of error (human, device malfunction, others, etc.)
- Root cause
- Impact on patient and staff (if available)
- Proposed mitigation strategies that could prevent such an error or event

All information presented will be de-identified (institution, members involved, state, etc.). Suggestions or recommendations on any punitive actions for staff or manufacturers will not be allowed. These case studies will present the error/event to members along with some suggestions and plans on how to prevent similar errors from occurring in the future.

We hope these documents will benefit the medical physics community, and ultimately our patients, by disseminating information from past reported medical errors or events regarding brachytherapy or radiopharmaceutical administrations. These cases can be used for education and training of brachytherapy team members as a radiation safety in-service. The first case will be available on the website by mid-October, with subsequent cases published on the website on a monthly basis.

We look forward to hearing from the membership regarding best practices and recommendations. Please send your comments to:

Zoubir Ouhib (Chair of WGMEB) at zouhib@gmail.com and Daniel Scanderbeg (Vice-chair of WGMEB) at dscanderbeg@health.ucsd.edu. ■



Zoubir Ouhib, MS
Florida Atlantic University



Daniel J. Scanderbeg, PhD
UC San Diego

Southern California Chapter Hosts Norm Baily Research and MedPhys SLAM Competitions

SOUTHERN CALIFORNIA CHAPTER REPORT

The Southern California Chapter of the American Association of Physicists in Medicine (AAPM-SCC) held an inspiring event on Saturday, April 27, 2024, at the Aresty Conference Center, University of Southern California. The gathering brought together medical physics professionals, residents, students, and researchers for a day of education, competition, and networking.

The event commenced with a keynote address by **Dr. Gabriel Zada**, the distinguished Director of the USC Brain Tumor Center and recipient of the Keck Medical Center of USC's Physician of the Year award. Dr. Zada's insightful exploration of the multifaceted challenges and advancements in neurosurgical oncology captivated the audience, offering a comprehensive overview of the field's current landscape. His expertise and passion were evident as he shared his experiences and perspectives, leaving a lasting impression on attendees.

Following the keynote, the spotlight shifted to the Norm Baily Awards and MedPhys SLAM competitions. These events provided a platform for medical physics graduate students, resident medical physicists, and post-doctoral researchers from UCLA, USC, and City of Hope to showcase their innovative research and communication skills. A distinguished panel of judges, comprising the chapter's officers, meticulously evaluated the presentations.

The competition was fierce yet friendly, fostering a collaborative atmosphere among participants. The presentations covered a wide range of topics, demonstrating the breadth and depth of research within the field of medical physics. The event offered a valuable opportunity for attendees to exchange ideas and gain insights into the latest advancements in the field.

We are delighted to recognize the exceptional achievements of the following award winners:

Norm Baily Resident and Post-Doctoral Research Award: **Dr. Huiming Dong**, UCLA, for his outstanding presentation titled "Clinical Implementation of Triggered Imaging for Prostate SBRT Motion Management: An Initial Experience."

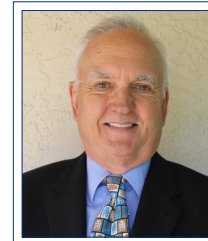
Norm Baily Graduate Student Research Award: **Erika Jank**, UCLA, was honored for her exceptional work on "Characterizing Subcutaneous Fat and Skeletal Muscle Loss from Daily Cone Beam CT Imaging in Patients Undergoing Head and Neck Radiotherapy."



Chengyu Shi, PhD
City of Hope



Zhilei Shen, PhD
University of Southern California



Steven Goetsch, PhD
San Diego Medical Physics



David Hoffman, PhD
Integrated Oncology Network

SOUTHERN CALIFORNIA CHAPTER REPORT, Cont.

MedPhys SLAM Competition: **Claudia Miller**, UCLA, captivated the audience with her dynamic presentation titled "5DCT 2.0: Development of the Next Generation of the 5DCT Workflow." Miller's innovative approach to improving image quality and efficiency in radiation therapy showcased her exceptional communication and presentation skills.

In addition to the first-place winners, second and third place awards were bestowed in each category, recognizing the outstanding contributions of all participants. All contestants received award certificates,

and winners were honored with cash prizes or travel reimbursement.

The Southern California Chapter extends its sincere gratitude to all participants, judges, attendees, and the USC Aresty Conference Center for their contributions to the event's success. The gathering served as a testament to the vibrant and collaborative spirit of the medical physics community in Southern California. We look forward to continuing to support and celebrate the achievements of our members in the years to come. ■



Attendees of the 2024 Norm Baily Research and MedPhys SLAM Competitions with the invited keynote speaker Dr. Gabriel Zada (the fifth from the right)



AAPM-SCC officers: Education Committee Member, Xiaoyu (Sherry) Liu; Treasurer, Talon Thompson; President-Elect, Zhilei (Julie) Shen; Secretary, David Hoffman (from left to right)

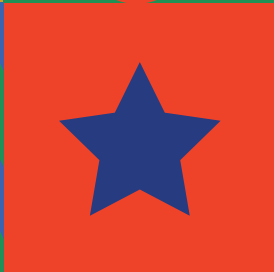
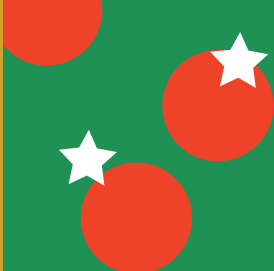
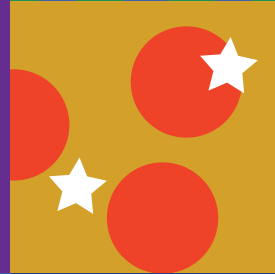
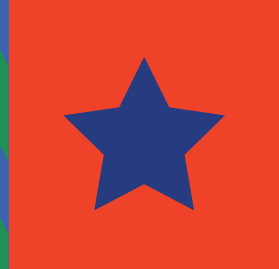


Attendees of the 2024 Norm Baily Research and MedPhys SLAM Competitions with the industry sponsors



Viewing area and judges of the 2024 Norm Baily Research and MedPhys SLAM Competitions

Warm
Season's
Greetings!



The AAPM Headquarters Team
wishes you a very
Happy Holiday season
filled with peace and joy.



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE



1631 Prince Street, Alexandria, VA 22314 | p. 571-298-1300 • f. 571-298-1301 | aapm.org