

AAPM NEWSLETTER

January/February 2025 | Volume 50, No. 1



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- ▶ Treasurer's Report
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- ▶ International Council Report
- ▶ Annual Meeting Subcommittee Report
- ▶ AAPM-MIDRC Subcommittee Report
- ▶ Persons in the News
- ▶ ...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

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AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE



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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.

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Posted Online: Week of March 3, 2025

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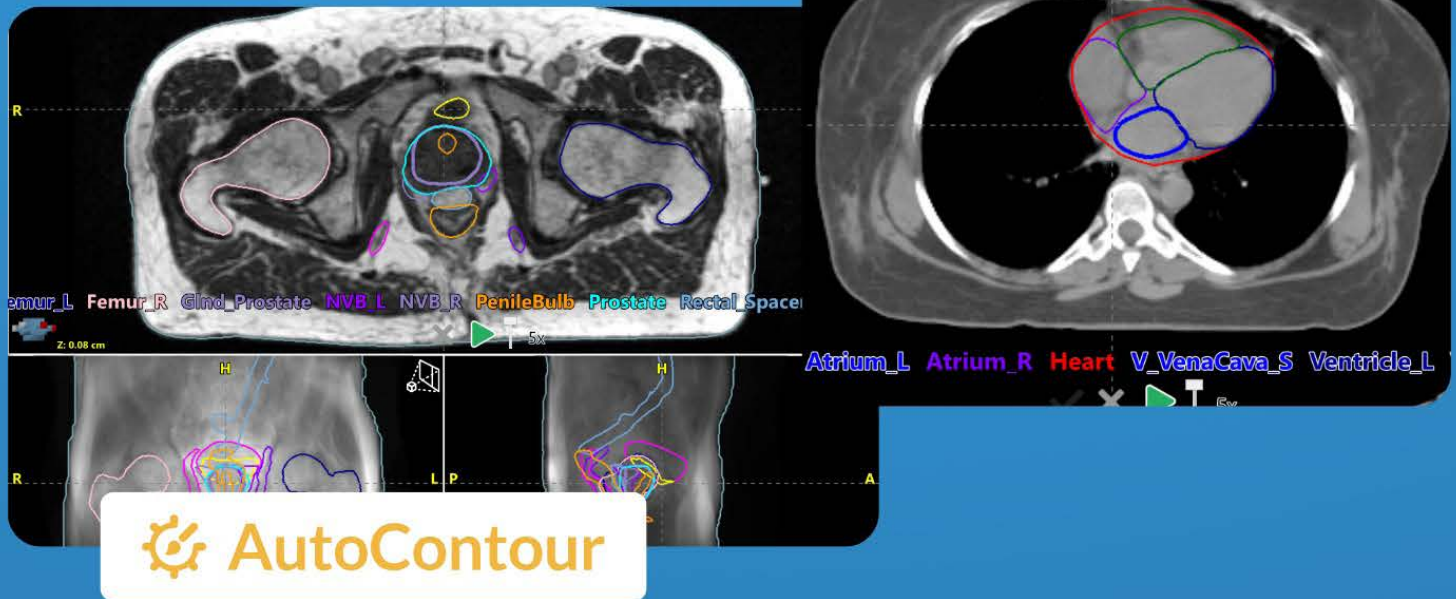
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EDITOR'S NOTE

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.

RAD formation



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*AutoContour's new 90+ structure models in version 2.6 are pending USFDA 510(k) clearance and are not available for clinical use.

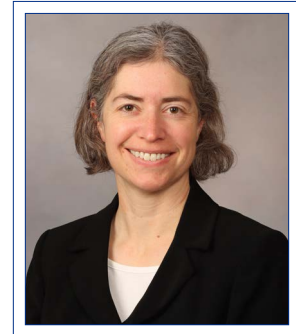
It's the 50th “Golden” Year of the AAPM Newsletter

NEWSLETTER EDITOR'S REPORT

Happy New Year, and welcome to Volume 50 of the AAPM Newsletter! The AAPM Newsletter started in 1975, and issues are available to read [online](#) dating back to 1998 (Volume 23). It's an impressively long time for continuous publication and a testament to the strength of AAPM as an organization. As the latest in a long line of volunteer Newsletter editors, I'm taking this opportunity to highlight the AAPM Headquarters staff behind the scenes who keep the Newsletter going. Thank you to all the AAPM staff who contribute to the Newsletter, and particularly to **Nancy Vazquez**, Programs Manager, who manages the Newsletter; **Abby Pardes**, Graphic and Web Designer, who creates the cover and designs the layout for every issue; **Nicholai Wingreen**, Programs Manager, and **Glen Hawkins**, Communications Manager, who provide editorial assistance. Cheers to the next 50 years!

In this issue of the Newsletter, Treasurer **Samuel Armato** presents the approved 2025 budget and explains the changes necessary to support AAPM's strategic priority of enhancing organizational sustainability. I recommend all AAPM members review the report to understand how these decisions are made. The Special Interest feature for this issue is a report on AAPM Annual Meeting undergraduate student events, organized in partnership with the Society of Physics Students (SPS). On a similar note, the International Council report highlights the Global Research and Mentorship Program (GREMP), which pairs researchers in Lower Middle-Income Countries with AAPM members with similar research interests to provide mentorship and foster global collaboration. The success of these types of efforts increases innovation, advancement, and growth of medical physics. Finally, the deadline for abstract submission for this year's AAPM Annual Meeting is January 14 — don't let it sneak up on you!

Please enjoy this issue of the Newsletter and send us your feedback and ideas for future editions. All AAPM members are encouraged to submit content and ideas for the Newsletter either directly to the Editor or through the submission link on the Newsletter page. You can share the Newsletter articles you enjoy with your social media network; the Newsletter is available for all to read. Thanks to all the members whose volunteer efforts make AAPM the organization it is, and I hope everyone's New Year is off to a good start!



Jennifer Pursley, PhD
Mayo Clinic

AAPM 2025

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



COMING TOGETHER TO FORGE AHEAD IN MEDICAL PHYSICS

AAPM ANNUAL MEETING FORMAT

FRIDAY | 7.25

- Group Meetings
- Board Meeting

SATURDAY | 7.26

- Group Meetings
- Review Courses
- Vendor User Meetings
- AI Specialty Meeting
- Student Night Out

SUNDAY | 7.27

- Morning Keynote
- Exhibit Hall Opening
- Sessions
- Lunch in the Exhibit Hall
- Early Career/Mentor Lounge
- E&R Fund Donors Lounge
- Opening Party *(formerly Night Out)*

MONDAY | 7.28

- President's Symposium
- Sessions
- Lunch in the Exhibit Hall
- Best in Physics Poster Reception
- Early Career/Mentor Lounge
- E&R Fund Donors Lounge
- Awards & Honors Ceremony and Reception

TUESDAY | 7.29

- Sessions
- Lunch in the Exhibit Hall
- Poster Reception
- Early Career/Mentor Lounge
- E&R Fund Donors Lounge
- Annual Business Meeting
- Leadership Reception *(invitation only)*
- Closing Party

EXHIBIT HALL 9:30 AM–5:00 PM

WEDNESDAY | 7.30

- Closing Keynote
- Sessions
- Early Career/Mentor Lounge

THURSDAY | 7.31

- AAPM Advocacy Day on Capitol Hill

The Humanness of Medical Physics

PRESIDENT'S REPORT

It is with great pleasure and humility that I am starting this year as your president. As I begin my official duties as the President of AAPM, I feel it is a great opportunity for me to work with all of you and, more so, with our dedicated volunteers, council chairs, and our dedicated staff. As President-Elect, I had the opportunity to attend many AAPM chapter meetings, which further provided insight regarding how fortunate we are to have so many dedicated members who form the backbone of AAPM. My belief is that only by working together will we be able to further strengthen our organization, and the field of medical Physics. AAPM is a diverse organization with over 10,000 members, including medical physicists from engineering, health physics, magnetic resonance, nuclear medicine, radiation oncology, radiation safety, radiology, ultrasound, and other specialties. I want to share with all of you several things that are planned for this year.

Spring Clinical and Summer Annual Meetings

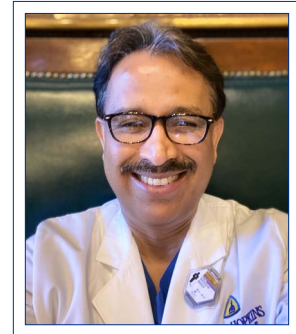
Planning for the AAPM 2025 meetings is in full swing, thanks to the remarkable work of our Director of Meetings & Exhibits, Mariana Gallo, with the Meetings Coordination Committee ([MCC](#)) led by **Robin Stern**, the Annual Meeting Subcommittee ([AMSC](#)) led by **Samuel Brady**, and the Spring Clinical Meeting Subcommittee ([SCMSC](#)) led by **Jeffrey Moirano**. As before, both meetings promise to be exemplary expositions of the scholarship and practice perpetually evolving in our field.

Spring Clinical Meeting:

In addition to all other wonderful sessions, I am looking forward to hosting and moderating the Presidential Symposium at the [2025 Spring Clinical Meeting](#). It will be on "AI in Clinical Medical Physics," with distinguished medical physics speakers **Laurence Court**, **Issam El Naqa**, and **Sharon Qi**, who will be providing a broad perspective on AI as applied in Radiation Therapy, Imaging, and the Role of Clinical Medical Physicists.

Annual Meeting:

The Annual Meeting will see several changes this year, starting with the meeting being a day shorter (July 27–30) with plenary talks on each day. For the first time, there will be an advocacy day and a visit to Capitol Hill on July 31. Please mark this on your calendar as you plan to attend the Annual Meeting. I encourage all attendees to the Annual Meeting to consider joining us for the AAPM Advocacy Day on Capitol Hill. Advocacy for science is a strategic priority, and a large number of medical physicists joining this effort will benefit our profession in the long run. More details regarding the sign-up and corresponding preparation/training for the Advocacy Day will be coming soon. Although the meeting will be one day shorter, it will still maintain the same number of sessions and the high quality of the talks. The defining theme for the year is "Coming Together to Forge Ahead in Medical Physics." I have referred



M. Mahesh, PhD
Johns Hopkins University



L – R: Sam Armato, David Gammel, M. Mahesh, Ehsan Samei, and Todd Pawlicki. Taken during RSNA 2024.

PRESIDENT'S REPORT, Cont.



to this year's theme in my previous President-Elect columns in the [March/April](#) and [September/October](#) 2024 issues of the AAPM Newsletter. In addition, new to this year's Annual Meeting will be an Opening Party on the first day (July 27) and a Closing Party on the third day (July 29) this year. I hope to see all attendees at these two gatherings and the Awards and Honors Ceremony on the second day (July 28). I hope this will enable all attendees to experience the theme of this year, namely, coming together to forge ahead in 2025 and make it an extraordinary Annual Meeting! For more details regarding the Annual Meeting, I kindly request all of you to read the [AMSC Chair Samuel Brady's report](#) in this issue.

Since we are meeting in Washington, DC — the nation's capital — it feels highly appropriate to center the Presidential Symposium around the theme of "Science and Advocacy." This is an important topic, as I strongly believe that good science only becomes a clinical reality through strong advocacy.

Now more than ever, it is crucial for the organization and its members to have a seat at the table and lead efforts to advocate for science. This theme aligns perfectly with our new initiative, **AAPM Advocacy Day on Capitol Hill**, which includes visits to Capitol Hill on the Thursday of the Annual Meeting.

The Presidential Symposium on "**Science and Advocacy**" will nicely complement this effort. I'll share more details as soon as everything is finalized.

Specialty Meeting on Artificial Intelligence

A specialty meeting, "AI Boot Camp," will be held a day before (July 26, 2025) the start of the Annual Meeting. This follows the hugely successful specialty meeting on a similar topic held a day before the Annual Meeting in LA last year. More details regarding the specialty meeting on AI will be coming soon.

AAPM Summit

AAPM plans to host a high-level summit later this year, focusing on topics that are both important to the organization and aligned with AAPM's strategic plan. Key areas of focus will include AI, emerging sciences such as computational models, theranostics, and the workforce. Addressing these areas effectively requires collaboration across the organization rather than limited to specific councils.

The summit will explore these three themes to develop both short-term and long-term objectives and a clear vision for the future.

More details about the summit will be shared in my future columns or in updates from AAPM Executive Director **David Gammel**.

Overall, I am very excited for the new year; AAPM's outlook for 2025 is one of optimism, adaptability, and strategic foresight. As we navigate the evolving landscape of medicine, we embrace change with purpose, ensuring that our association, our field, and our members will thrive in the years to come. I would like to sincerely express my gratitude to **Ehsan Samei**, who rotated off the Board after serving as the Chair of the Board, and I look forward to welcoming **Robin Miller** as the President-Elect. I am fortunate to have two dedicated leaders with whom I have worked in the past on either side of me, with **Todd Pawlicki** as Chair of the Board and Robin Miller as President-Elect, along with dedicated Treasurer **Sam Armato** and Secretary **Sonja Deitrich**. David and I both started on the EXCOM in 2024, he as our new Executive Director and I as your President-Elect. I look forward to working with him and our AAPM staff as we look forward to exciting and challenging times for medical physics. ■

Heading into an Exciting 2025

EXECUTIVE DIRECTOR'S REPORT

The end of my first year with AAPM approaches as I write this column. It genuinely flew by! It's been a whirlwind of meeting members, delving into the discipline, understanding AAPM's operations, and strengthening partnerships with staff and leadership. I've gained a deep appreciation for the diverse scope of medical physics and its essential connections throughout healthcare and medical research. The contributions you make to human health are profound, with exciting possibilities on both the near and distant horizons. I'm equally impressed by the work our members contribute to the organization, all in pursuit of advancing human health through physics. It's an honor to be here!

This column highlights some major activities coming up in 2025 that build on our strategic plan.

As President Mahesh has shared in his column, we are organizing an AAPM Advocacy Day on Capitol Hill following AAPM's Annual Meeting in Washington, DC, this July. This initiative will provide members with training on advocacy and effective engagement with congressional offices, culminating in visits to Capitol Hill to put that training into practice. It's a first for AAPM, and we're excited to expand our advocacy efforts and demonstrate the value of medical physics.

With the approval of our [new strategic plan](#) in 2024, we developed a focus plan of work for 2025 and beyond. One of our major initiatives for this year is a summit on the future of medical physics. This event will bring together internal and external stakeholders to map out the discipline's future, highlight areas of potential impact as medicine evolves, and determine how best to support the field's development. Our goal is to outline a 10-year roadmap and identify immediate areas of focus for growth. Key topics will likely include AI and computational medicine, theranostics, workforce development, and frontiers in medical physics. This is our most important big-picture strategic initiative and I'm eager to see where it takes us. We'll provide updates as planning advances throughout the year.

At AAPM headquarters, we're addressing our Organizational Sustainability priority by upgrading elements of our technology infrastructure in 2025. This includes shifting to off-the-shelf systems and retiring older, custom-built applications. We're also investing in staff training on our core technology tools and new functionalities. As these changes roll out, members can expect enhanced digital services and new tools to support their work and volunteer activities. Your patience and support are greatly appreciated as we undertake this essential transformation.

Another focus is rebalancing responsibilities between our volunteers and staff. Working with the Executive Committee, Governance Committee, and council and committee chairs, we aim to empower members to focus more on the



C. David Gammel
Executive Director, AAPM HQ

EXECUTIVE DIRECTOR'S REPORT, Cont.

science and practice of medical physics while enabling staff to lead operational efforts. For our volunteers, this shift should make your work with AAPM more efficient and impactful. For our staff, it's an opportunity to grow their impact in their professional roles. This is a long-term transformation for AAPM, and I'm grateful for your partnership as we work together to implement these changes across groups and activities.

Finally, I recently returned from the 2024 RSNA Annual Meeting in Chicago. It was a pleasure connecting with many of you on the diagnostic side of the field and learning more about your collaborations with radiology

and radiologists. AI was the central theme of the meeting, highlighting a bright future for medicine. While AI holds tremendous potential, it also introduces uncertainty and the likelihood of significant change for many specialties, including medical physics. This reaffirms the importance of AI as one of our key strategic priorities.

I'm eager to connect with more of you in the coming year as our programs advance and I attend more chapter and AAPM meetings. Your input is always welcome. If you have comments, questions, or feedback, please reach out to me at dgammel@aapm.org. ■



UPCOMING
AAPM
WEBINARS
2025

JANUARY

9

12:00 – 1:00 PM | ET

Innovations in Medical Physics Education

23

12:00 – 1:00 PM | ET

How to Navigate AAPM as a Student and Trainee

FEBRUARY

13

12:00 – 1:00 PM | ET

AAPM Webinar Series on Advances in Medical Physics

Webinar #40

Spatially Fractionated, Microbeam and Flash Radiation Therapy

27

12:00 – 1:00 PM | ET

AAPM Webinar Series on MP3.0 Transformational Medical Physics

Episode #23

Medical Physicist as Patient: Continuing the Conversation

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

2025 Budget — “Charting a New Direction”

TREASURER’S REPORT

At this time of reflection on the past year and anticipation of the new year ahead, I wish to thank **Robert McKoy** and the AAPM financial team, the diligent members of FINCOM, and my trusted colleagues on EXCOM for their dedication to our association's financial stewardship.

Financial Position and Estimates for 2024

The 2024 budget (approved by the Board in 2023) estimated revenue at \$10.82M and expenses at \$12.11M, for a budget deficit of \$1.29M. This budget deficit was approved with the “Do Less Better” philosophy — Councils budgeted based on what they expected they could actually achieve for 2024.

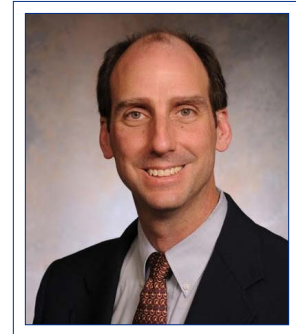
The finance team has analyzed year-to-date revenue and expenses compared with their budgeted amounts. At the time of this writing, we estimate actual revenue of \$11.1M and actual expenses of \$12.7M, resulting in an estimated year-end actual deficit of \$1.6M for 2024. However, the final deficit for the year could be higher or lower due to variability in Council spending through December. As unsettling as such a substantial deficit in operations sounds, this was actually an anticipated part of our long-term plan to balance the budget: we now know we can craft a budget that more accurately reflects our collective ability to spend the allocated funds; we now need to gradually reduce the activities in which we engage to reduce those expenses while at the same time fostering additional revenue streams.

2025 Budget

One of the strategic priorities in the new strategic plan approved by the Board of Directors is **Enhancing Organizational Sustainability**, one goal of which is to achieve a balanced budget by 2027. FINCOM, staff, and volunteer leadership worked collaboratively to take the first steps toward this goal in diligently preparing the 2025 budget.

All revenue and most expenses not under the control of the Councils were removed from the Council budgets. Councils received a pro-forma 2024 budget in advance of the 2025 budget process that presented what the 2024 budget would have looked like if these changes had been implemented for the 2024 budget cycle. From these projections, Councils were asked to prepare draft budgets that reduced their spending by 10% for 2025.

I want to express my sincere thanks to the Council and committee chairs and their staff liaisons, who worked extremely hard together to meet the targets established by FINCOM for developing their draft budgets. FINCOM met face-to-face at AAPM Headquarters to review the 2025 draft budget in October. The discussion was pleasantly different than in previous years. Traditionally, the discussion was more granular, reviewing each respective Council budget line-by-line. This year, FINCOM engaged in a more strategic review of the



Samuel G. Armato III, PhD
The University of Chicago

TREASURER'S REPORT, Cont.

draft budget, focusing more on the desired outcomes of the allocated resources. FINCOM approved the initial draft budget to submit to the Board of Directors, which approved the 2025 budget.

Revenue and expense projections from the approved 2025 budget are provided below.

2025 Budget

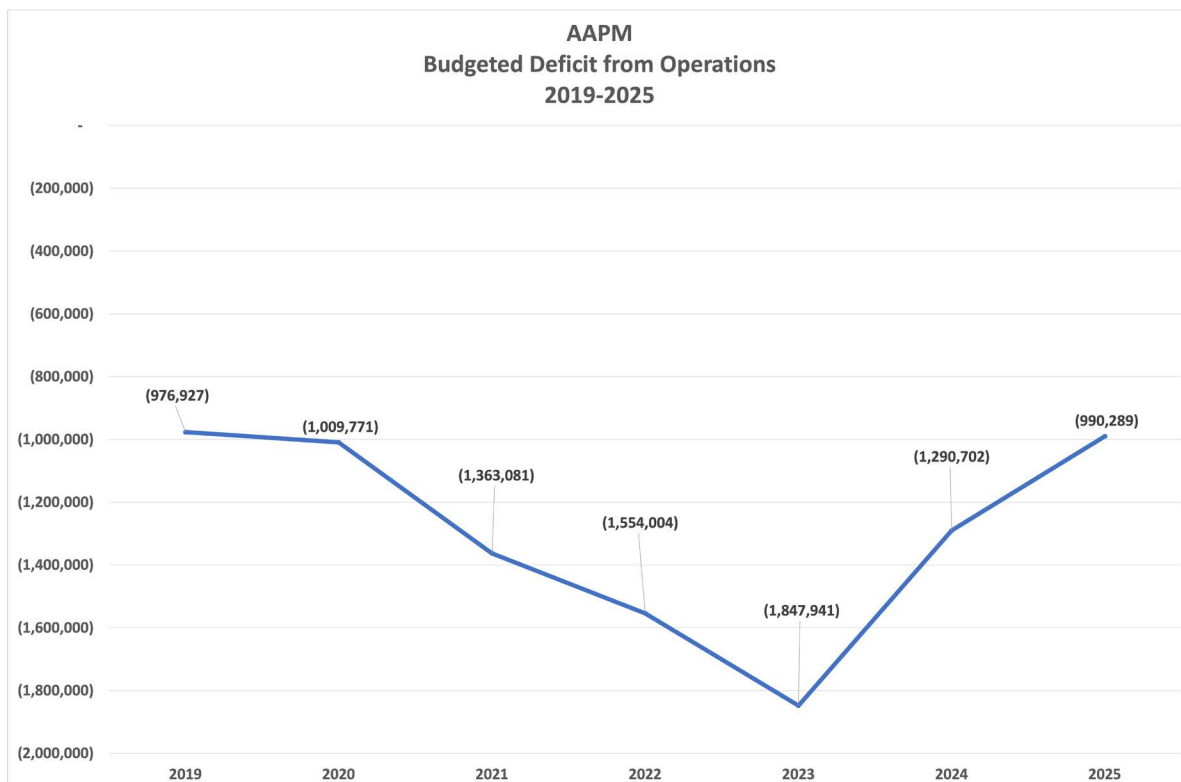
Total Revenue	\$12,726,838
Total Expenses	\$12,726,838
Deficit from Operations	\$ <u>990,289</u>

Additionally, the Board of Directors approved spending an additional \$1.0M from reserves for further marketing efforts, a strategic summit, and other initiatives to help advance the strategic plan and position AAPM to remain a leader in the field well into the future.

The approved deficit of \$990,289 represents a 23% reduction of the prior year's approved budget deficit and

is the first step towards achieving our goal of a balanced budget by 2027. We have much more work ahead of us. Still, I am confident that we will continue to progress toward the goal under the leadership of Executive Director **David Gammel**, the AAPM staff, and volunteer leadership.

As we look to the future, we must be prepared to implement new spending priorities to address the Association's ever-changing needs. AAPM is well positioned to effectuate this change, with the right volunteer and staff leadership to make this change happen. I want to thank Robert McKoy for his extraordinary assistance throughout the budget process and writing this article. I look forward to his continued proficient guidance in the upcoming years. Please contact me (s-armato@uchicago.edu) if you have any questions concerning this report. I'm looking forward to a rewarding and fulfilling 2025! ■



Growing AAPM's Advocacy in 2025

LEGISLATIVE AND REGULATORY AFFAIRS REPORT

2025 promises one certainty across the government landscape: uncertainty. With the 119th Congress convening and a second Trump presidency underway, changes are guaranteed. However, rather than speculating on the unknown, AAPM volunteers are focused on establishing a strong advocacy foundation for medical physics. This core capability will enable us to address key issues and adapt to any changes ahead.

This article highlights two major initiatives for 2025 that promise to elevate AAPM's advocacy efforts: our inaugural AAPM Advocacy Day on Capitol Hill and the grassroots effort of the State Champions (CHAMPS). By engaging in these initiatives, AAPM members can ensure that medical physicists have a meaningful voice with policymakers.

Congressional Visit Day

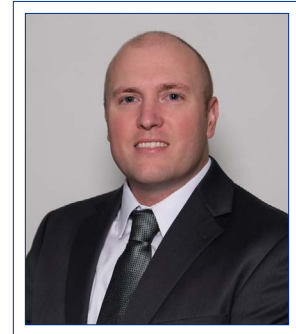
AAPM's 67th Annual Meeting and Exhibition will take place in Washington DC, in late July 2025. This coincides with President **M. Mahesh's** tenure as AAPM's President. A long-time advocate for medical physics and radiology, President Mahesh has championed the idea of medical physicists engaging directly with policymakers. Thanks to early suggestions from both President Mahesh and **Julianne Pollard-Larkin** back in 2023, the Government and Regulatory Affairs Committee ([GRAC](#)) has worked to make this vision a reality.

The inaugural AAPM Advocacy Day will take place on **July 31, 2025**, immediately following the annual meeting. Open to all AAPM members, this event represents a unique opportunity to meet with Congressional offices and to advocate for medical physics.

While any constituent can schedule meetings with their Congressional members, organizing an event of this scale involves significant planning, resources, and coordination. Participants will be responsible for scheduling their meetings, with delegations organized by state or district. Each group will have a volunteer captain — potentially a State Champion — to lead their visits. Participants will receive comprehensive training and resources, offered both virtually and in-person, to ensure impactful conversations on Capitol Hill.

Throughout 2024, GRAC has prepared extensively for the Advocacy Day. Members have attended other associations' Hill Days to gather insight and best practices. For instance, see the last newsletter article where **Judith Rivera** and **Barbara Marquez** wrote about their experiences with ASTRO's 2024 Hill Day ([pages 13–14 of the November/December 2024 AAPM Newsletter, Volume 49, No. 6](#)). Others have participated in advocacy days with The Academy, ACR, SNMMI, and more.

In preparation for the event, GRAC is collaborating with stakeholders to align advocacy goals with AAPM's new [Strategic Plan](#). These goals will focus on critical issues such as improving health equity through workforce development, securing stable research funding, and ensuring ongoing



**David Crowley, Senior
Government Relations Manager
AAPM HQ**

LEGISLATIVE & REGULATORY AFFAIRS REPORT, Cont.

support for the National Institutes of Health (NIH). If you have suggestions for advocacy topics or strategies, please contact [Sebastien Gros](#), GRAC Chair, or reach out to [me](#) directly.

Finally, the CVD initiative is supported by a venture grant from the American Institute of Physics ([AIP](#)) which will be instrumental in expanding AAPM's advocacy programs. We are deeply appreciative of this opportunity and very excited that it will help us jumpstart programs, such as our Advocacy Day or building up the CHAMPS.

State Champions

Navigating the unique legislative and regulatory environment of each state presents its own challenges: each state has its own rules, statutes, legislative processes, and political landscapes. To address these complexities, AAPM launched the State Champions Program (CHAMPS), a grassroots initiative that empowers members to advocate for medical physics at a local level.

State Champions are tasked with monitoring state-level activities, building and fostering relationships with regulators and legislators, and ensuring medical physicists are actively involved in policy discussions. To date, over 90 members from more than half of the states have expressed interest in

participating. Ideally, each state will have 2–3 champions to effectively represent different medical physics disciplines. There is no limit to the number of participants, as long as they remain actively engaged with advocacy efforts.

The State Champions Steering Subcommittee ([CHAMPSC](#)) officially launched in late 2024. This group — which includes state champion volunteers and representatives from GRAC and other key committees (e.g., [JMPLSC](#), [CRCPDS](#), [MPPGAWG](#)) — is responsible for organizing volunteer efforts, developing resources and training, and setting program goals. The subcommittee is chaired by **Sook Kien Ng**. If you are interested in joining CHAMPS or have questions, please contact [her](#) or [me](#).

Closing

Change is inevitable. AAPM's advocacy initiatives can ensure that medical physicists are not just observers but active participants in shaping policy. Programs like CHAMPS and the AAPM Advocacy Day on Capitol Hill will give AAPM the tools to navigate an evolving policy landscape and amplify our voices.

Stay tuned for updates on these initiatives and opportunities to get involved. ■

Our Condolences

[Thomas H. Kirby, PhD](#) • [R. Harold Galbraith, MS](#) • [Guy H. Simmons Jr., PhD, FAAPM](#)

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: 2025.aapm@aapm.org
(Please include supporting information so that we can take appropriate steps.)

CMS Issues Medicare 2025 Final Rules

HEALTH POLICY & ECONOMIC ISSUES REPORT

Medicare Physician Fee Schedule

The Centers for Medicare and Medicaid Services (CMS) recently released the 2025 Medicare Physician Fee Schedule (MPFS) final rule. The final rule policies and payments are effective January 1, 2025. The MPFS specifies payment rates to physicians and other providers, including freestanding cancer centers. It does not apply to hospital-based facilities. Payments to hospital outpatient departments are described in a separate section below.

Payments are based on the relative resources typically used to furnish the service. Relative value units (RVUs) are applied to each service for physician work, practice expenses and malpractice costs. These RVUs become payment rates through the application of a conversion factor, which is updated annually.

The 2025 conversion factor of \$32.35 per RVU is a 2.8 percent decrease from the 2024 conversion factor of \$33.29. The 2025 MPFS policy changes and reduction to the conversion factor results in an overall impact of zero percent to radiation oncology and radiology services. The reduction to the 2025 conversion factor may only be mitigated by Congressional legislation.

Six new CPT codes that describe magnetic resonance (MR) examination safety procedures and the physician work involving patients with implanted medical devices that require access to MR diagnostic procedures are effective January 1, 2025 (see table below). CPT 76014 and 76015 are practice expense only codes, there is no reimbursement for physician work. CPT 76017 specifically recognizes the work effort of the Medical Physicist. CMS accepted the RUC-recommended work RVUs for CPT codes 76014-76019 and made minor refinements to the practice expense inputs for all codes based on written comments submitted by the AAPM. Medical physicists will want to work with the relevant reimbursement teams in their practice setting to be sure these codes are listed and properly valued in their procedure and charge list.

CPT Code	Description	2025 Final RVUs	2025 Final Payment
76014	MR safety implant and/or foreign body assessment; initial 15 minutes	0.33	\$10.67
76015	MR safety implant and/or foreign body assessment; each additional 30 minutes (add-on code)	1.59	\$51.43
76016	MR safety determination	2.20	\$71.16
-26		0.84	\$27.17
-TC		1.36	\$43.99
76017	MR safety medical physics examination	6.79	\$219.63
-26		1.07	\$34.61
-TC		5.72	\$185.02
76018	MR safety implant electronics preparation	3.45	\$111.60
-26		1.05	\$33.96
-TC		2.40	\$77.63
76019	MR safety implant positioning and/or immobilization	4.50	\$145.56
-26		0.83	\$26.85
-TC		3.67	\$118.71



Wendy Smith Fuss, MPH
Health Policy Solutions

For additional information including Medicare rule summaries, 2024 final payments and impacts visit the [AAPM website](https://www.aapm.org).

HEALTH POLICY & ECONOMIC ISSUES REPORT, Cont.

After consideration of the public comments, CMS is finalizing the proposal to broaden the applicability of transfer of care modifier -54 *Surgical Care Only* for 90-day global packages. Beginning with services furnished in CY 2025, modifier -54 is required for all 90-day global surgical packages in any case when a practitioner plans to furnish only the surgical procedure portion of the global package (including both formal and other transfers of care). This policy applies to brachytherapy codes 77750, 77761, 77762 and 77763.

In the MPFS 2025 proposed rule, CMS proposed to remove CPT 77427 Radiation Treatment Management from the Medicare Telehealth Services List. After consideration of public comments, CMS is not finalizing as proposed. Instead, CMS will retain CPT 77427 Radiation Treatment Management on the Medicare Telehealth Services List on a provisional basis.

The reduction to the 2025 conversion factor, in conjunction with the clinical labor pricing update, medical equipment updates and expansion of evaluation and management services (i.e., office visits) will result in payment reductions to most radiation oncology services in 2025.

- 77336 Weekly medical physics consultation \$88.63, 0.3% payment decrease
- 77370 Special medical physics consultation \$145.56, 0.8% increase
- 76145 Medical physics dose evaluation radiation exposure \$955.52, 5.5% increase

Hospital Outpatient Payment System

CMS recently released the 2025 Medicare Hospital Outpatient Prospective Payment System (HOPPS) final rule, which provides facility payments to hospital outpatient departments. The final rule policies and payments are effective January 1, 2025. This rule does not impact payments to physicians or freestanding cancer centers.

Under the HOPPS, hospital reimbursement is based on Ambulatory Payment Classifications (APCs). CMS assigns CPT and HCPCS codes to an APC based on

clinical and resource use similarity. All services in an APC are reimbursed at the same rate.

CMS is updating the HOPPS payment rates with a 2.9 percent overall increase in 2025. Payment for medical physics consultation codes 77336 and 77370 have a 2.7 percent payment increase in 2025 (see table, page 17).

CMS maintains CPT code 76145 (Medical physics dose evaluation for radiation exposure that exceeds institutional review threshold, including report (medical physicist/dosimetrist)) in APC 5723 *Level 3 Diagnostic Tests and Related Services* with a payment rate of \$530.60, a 3.9 percent increase over current payment.

Effective January 1, 2025, CMS establishes new HCPCS G-codes for Biology Guided Radiation Therapy (e.g. RefleXion system). HCPCS C9794 is being deleted and replaced by G0562 (Therapeutic radiology simulation-aided field setting; complex, including acquisition of PET and CT imaging data required for radiopharmaceutical-directed radiation therapy treatment planning (i.e., modeling). HCPCS C9795 is being deleted and replaced by G0563 (Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance and real-time positron emissions-based delivery adjustments to 1 or more lesions, entire course not to exceed 5 fractions).

New CPT codes that describe magnetic resonance (MR) examination safety procedures are effective January 1, 2025. CMS assigns the new MR Safety codes to the following APCs (see table below). Medical physicists will

CPT Code	2025 APC	2025 Payment
76014 MR safety implant and/or foreign body assessment; initial 15 minutes	5731 Level 1 Minor Procedures	\$24.49
76015 MR safety implant and/or foreign body assessment; each additional 30 minutes (add-on code)	n/a	\$0
76016 MR safety determination	5521 Level 1 Imaging without Contrast	\$88.05
76017 MR safety medical physics examination customization	5523 Level 3 Imaging without Contrast	\$241.72
76018 MR safety implant electronics preparation	5742 Level 2 Electronic Analysis of Devices	\$91.79
76019 MR safety implant positioning and/or immobilization	5733 Level 3 Minor Procedures	\$59.40

HEALTH POLICY & ECONOMIC ISSUES REPORT, Cont.

want to work with the relevant reimbursement teams in their practice setting to be sure these codes are listed and properly valued in their chargemaster.

After significant consideration and ongoing engagement from interested parties, CMS finalized the proposal to pay separately for any diagnostic radiopharmaceutical with a per day cost greater than \$630. Any diagnostic radiopharmaceutical with a per day cost below the threshold would continue to be packaged under the current packaging policy.

For the Hospital OQR Program measure set, CMS previously adopted the Excessive Radiation Dose or Inadequate Image Quality for Diagnostic CT in Adults eCQM for voluntary reporting that begins with the CY 2025 reporting period, and mandatory reporting that begins with the CY 2027 reporting period/CY 2029 payment determination.

For additional information including Medicare rule summaries, 2025 final payments and impacts visit the [AAPM website](#) ■

Summary of 2025 Radiation Oncology HOPPS Payments

APC	Description	CPT Codes	2024 Payment	2025 Payment	Percentage Change 2024-2025
5611	Level 1 Therapeutic Radiation Treatment Preparation	77280, 77299, 77300, 77331, 77332, 77333, 77336, 77370, 77399	\$129.28	\$132.77	2.7%
5612	Level 2 Therapeutic Radiation Treatment Preparation	77285, 77290, 77306, 77307, 77316, 77317, 77318, 77321, 77334, 77338	\$352.05	\$366.07	4.0%
5613	Level 3 Therapeutic Radiation Treatment Preparation	32553, 49411, 55876, 77295, 77301, C9728	\$1,320.21	\$1,368.26	3.6%
5621	Level 1 Radiation Therapy	77401, 77402, 77789, 77799	\$114.25	\$109.50	-4.2%
5622	Level 2 Radiation Therapy	77407, 77412, 77600, 77750, 77767, 77768, 0394T	\$256.06	\$262.98	2.7%
5623	Level 3 Radiation Therapy	77385, 77386, 77423, 77470, 77520, 77610, 77615, 77620, 77761, 77762	\$560.87	\$578.47	3.1%
5624	Level 4 Radiation Therapy	77605, 77763, 77770, 77771, 77772, 77778, 0395T	\$683.13	\$693.81	1.6%
5625	Level 5 Radiation Therapy	77522, 77523, 77525	\$1,351.62	\$1,275.51	-5.6%
5626	Level 6 Radiation Therapy	77373	\$1,700.12	\$1,755.91	3.3%
5627*	Level 7 Radiation Therapy	77371, 77372, 77424, 77425	\$7,419.64	\$7,644.49	3.0%

*Comprehensive APC



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE

2025 ASTRO-AAPM Physics Resident/ Postdoctoral FELLOW SEED GRANT

AAPM and the American Society of Radiation Oncology (ASTRO)

are happy to announce jointly funded research seed grants for Medical Physics Residents and Post-Doctoral Fellows. Up to two awards (\$50,000 maximum / each) are anticipated. The goal of the joint seed grants is to advance the field of radiation oncology in novel ways through the support of early-career scientists involved in radiation oncology physics-related research. With this jointly supported grant, both societies aim to help support the next generation of researchers in the field of radiation oncology.

Sponsored by the AAPM Science Council through the AAPM Education & Research Fund and the American Society of Radiation Oncology (ASTRO).

ELIGIBILITY CRITERIA

- Must be a current and active ASTRO and AAPM member.
- Must show a commitment to a career focusing on physics-related research with a radiation oncology component.
- Must work at an institution with a well-established research and clinical career development program and qualified faculty in physics and radiation oncology to serve as mentors.
- Must be a physics resident or post-doctoral fellow. Physics residents: your institution must be willing to commit 75% of your time to research for at least one year.

AWARD DURATION

July 1, 2025 – June 20, 2026

APPLICATION DEADLINE

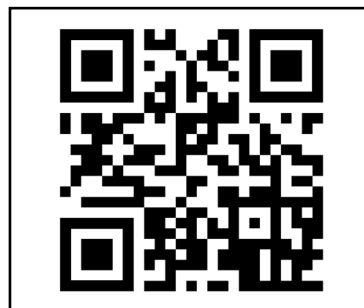
March 20, 2025

AAPM Members must log in to access the application. If you are not yet an AAPM member, consider applying now to be eligible for the grant. Apply [here](#).

PROGRAM CONTACT: grantsandfellowships@aapm.org

FOR MORE DETAILS, VISIT:

<https://aapm.me/AAPRPD>



Therapy Practice Accreditation Subcommittee (TPAS) Update

PROFESSIONAL COUNCIL REPORT

This article is an update for membership on recent activities, goals, and future direction for the Therapy Practice Accreditation Subcommittee (TPAS). The TPAS is in the Professional Council, Chair **Russell Tarver, MS**, and under the Clinical Practice Committee, Chair **Lalith Kumaraswamy, PhD**.

The charge and scope of the TPAS:

- To coordinate AAPM activities with all therapy accrediting bodies.
- To work to ensure consistent modality-specific medical physics requirements across all accrediting bodies.
- To coordinate with the Government and Regulatory Affairs Committee (GRAC) to ensure consistent language in regulation and legislation as it applies to facility accreditation.
- Review requests for medical physics assistance from other groups relative to their practice or facility therapy accreditation programs.

For the last two years, the current members of the TPAS — **Jeffrey Limmer, MS** (Chair), **Steven Sutlief, PhD** (Vice Chair), **Lei Dong PhD**, **Lalith Kumaraswamy PhD**, **Holly Lincoln MS**, and **Jeffrey Woollard, PhD** — and the therapy practice accreditation agency liaisons — **Matthew Pacella, MS (ACR)**, **Todd Bossenberger, MS (APEX)**, and **Nadeem Khan, DHA (ACRO)** — have been working to establish and serve as a communication conduit between the AAPM and accreditation agencies.

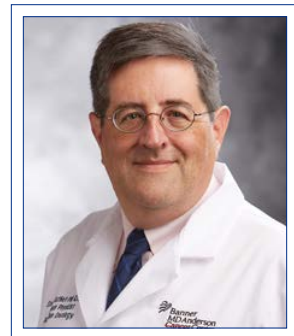
The first goal was to establish direct contact and start conversations with the three therapy practice accreditation agencies (ACR, APEX, and ACRO) with the understanding that, while AAPM supports therapy practice accreditation, it needs to remain neutral regarding the endorsement of any one accreditation agency over another. Topics discussed centered around the desire for AAPM to have continued communication with the agencies, how accreditation standards are determined, the role AAPM plays in providing best practice references for accreditation standards and asking for feedback regarding AAPM guidelines.

The discussions were very fruitful, and the accreditation agencies were open to dialogue. Formal, periodic meetings between the accreditation agencies and the TPAS began, and topics and questions were collected and shared with various AAPM committees. The topics generally fell into two categories: perceived gaps in AAPM guidance documents and occasional, conflicting best practice guidance between and among published Task Group (TG) Reports and Medical Physics Practice Guidelines (MPPG).

These topics and questions were organized and meetings between the TPAS and AAPM committees that oversee Task Group Reports and Medical Physics Practice Guidelines were scheduled. These meetings with Science Council's Therapy Physics Committee ([TPC](#)) chaired by **Dimitris Mihailidis PhD**,



Jeffrey P. Limmer, MS
Texas Oncology



Steven G. Sutlief, PhD
Sharp Healthcare

The discussions were very fruitful, and the accreditation agencies were open to dialogue. Formal, periodic meetings between the accreditation agencies and the TPAS began, and topics and questions were collected and shared with various AAPM committees.

PROFESSIONAL COUNCIL REPORT, Cont.

Working Group on Task Group Creation ([WGTGC](#)) chaired by **Martha Matuszak PhD**, and Professional Council's Subcommittee on Practice Guidelines ([SPG](#)) chaired by **Daniel Pavord MS**, were productive and sparked positive conversations related to enhanced coordination within AAPM as topics are prioritized and selected for TG reports and MPPGs to avoid duplication and explore gaps in guidance documents as technology and equipment evolve. Also discussed was the need for clarity not only to accreditation agencies but also clarity to AAPM members when there are varying sources for guidance on a similar topic (e.g., TG 142 and MPPG 8.x differences); suggestions for QA thresholds, minimum tests to run, the role of TG 100, etc.

Concurrently, AAPM committees appreciate that all three accreditation agencies reference AAPM guidance documents to determine their quality metrics and standards for radiation oncology practice accreditations.

Our colleagues in ASTRO have encouraged the introduction of The Radiation Oncology Case Rate (ROCR) Value-Based Payment Program Act introduced to the House of Representatives in May of 2024, a new radiation oncology payment reform legislative proposal which is a revised payment system using bundled professional and technical case rates based on disease type for Medicare patients; changing radiation oncology payment from per fraction to per patient.

We mention ROCR because, in the past, suggested payment reforms such as RO-APM listed radiation therapy practice accreditation as a secondary metric for quality and did not directly link it to reimbursement. However, the proposed ROCR legislation links practice accreditation directly to reimbursement: "[ROCR]... Provides a technical payment incentive to earn/maintain practice accreditation, which is well accepted by radiation oncology clinics for assessing and improving quality of care." – Jacobson G. et al, *ASTRO Releases New Radiation Oncology Payment Reform Legislative Proposal*, ASTROblog June 28, 2023 <https://www.astro.org/blog/june-2023/astro-releases-new-radiation-oncology-payment-reform-legislative-proposal>

Whether this legislation passes or not, the momentum appears to be swinging toward radiation practice accreditation being a prominent and primary indication of quality to patients, providers, and payers. This is another reason for AAPM's continued collaboration and open dialogue with accreditation agencies going forward.

As one TPAS chair rotates off and another chair, **Steven Suttief, PhD**, takes the reins in January 2025, I thank AAPM for the opportunity to be part of this important effort.

New TPAS Chair Comments

In the year ahead, TPAS will continue our annual meetings with ACR, ACRO, and APEx representatives as described above. These meetings have been illuminating because our accrediting agency representatives bring experience with unique clinical arrangements, such as equipment outside the radiation therapy department. The representatives have pointed out special areas of concern that TPAS has communicated to the appropriate AAPM committees.

As a special direction for 2025, we will look for increased input from the medical physics community regarding experiences with the accreditation process. Each accreditation body has mature practice guidelines, but radiation therapy practice evolves rapidly, and ongoing review is necessary to ensure the relevance of accreditation. As new modalities and processes enter the clinic, TPAS wants to hear from the community when changes in accreditation standards are needed.

TPAS continues to serve as a conduit for communication between AAPM and the accreditation bodies. This coordination is supported by liaison connections to the Government and Regulatory Affairs Committee ([GRAC](#)), the Working Group on MPPG Adoption ([MPPGAWG](#)), and the Clinical Practice ([PICR](#)) Committee. In the year ahead, we anticipate a push for MPPGs to be used as minimum standards for compliance or for there to be written justification when a department diverges from the recommendations.

Communication is especially important when AAPM announces new and revised standards through MPPG

PROFESSIONAL COUNCIL REPORT, Cont.

and TG reports. The TPAS will summarize how these reports affect or change existing practice expectations. 2023 was a productive year, with the publication of new MPPGs for clinical physics peer review and HDR brachytherapy and an MPPG update on linear accelerator performance tests. We will ensure that the accreditation bodies are aware of these publications and the prior reports they supersede.

TPAS is always open to accepting new members. If you are interested, notify the chair so you can be added as a guest and on track for promotion to member.

I want to thank **Nicholai Wingreen** at AAPM headquarters for all his assistance in keeping TPAS running smoothly. ■



The Working Group on Medical Errors in Brachytherapy ([WGMEB](#)) is excited to announce that the first ME case discussion is now LIVE on the AAPM website!

Access the case discussion [here](#).

Please take a moment to review the content. Your feedback is incredibly valuable, and we'd greatly appreciate your thoughts!

Share your feedback:

Zoubir Ouhib: zouhib@gmail.com | Daniel Scanderbeg: dscanderbeg@health.ucsd.edu



SunCHECK[®] 5.0

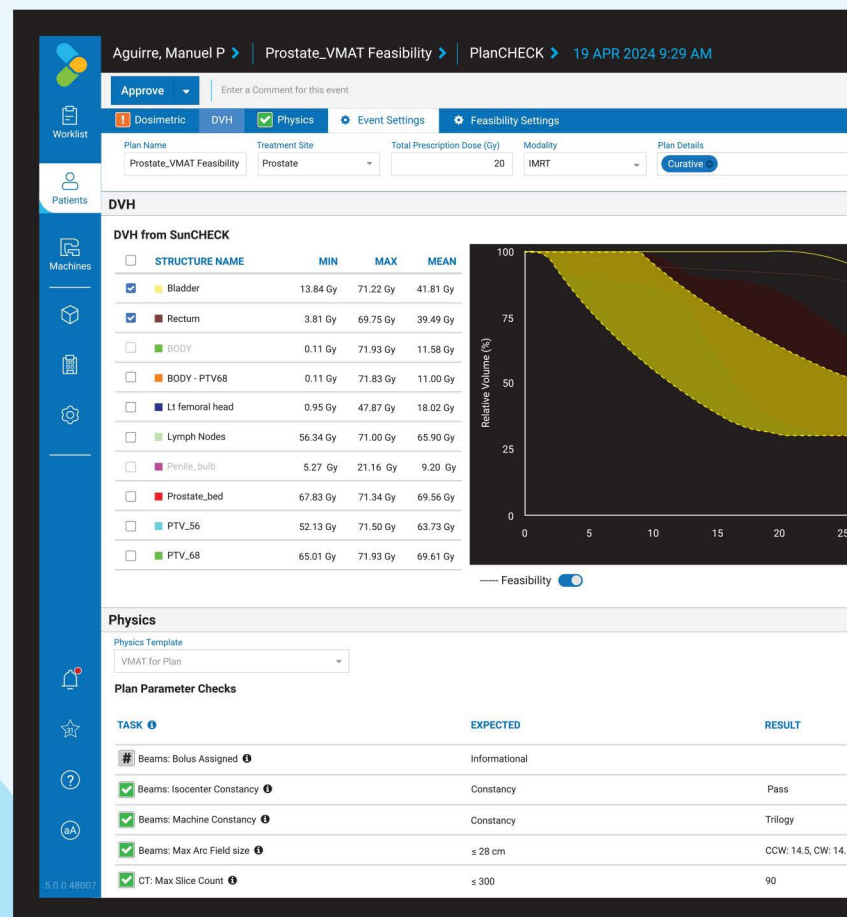
The Connected Workspace for Higher Quality



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



COMING SOON

Monte Carlo Secondary Dose Calculations

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Global Research and Mentorship Program (GREMP): Transforming Vision into Global Impact in Medical Physics

INTERNATIONAL COUNCIL REPORT

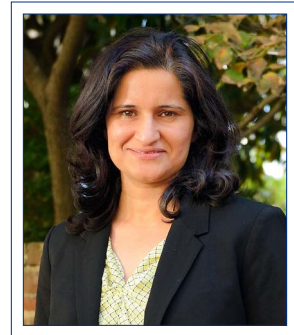
“GRSIC/GREMP has turned my dream into reality”

-----Dr. Chai Yeong, Prof. Taylor University, Malaysia
President SEAFOMP, Chair (MPWB), IOMP

GREMP's Inception and Vision

In 2021, a needs assessment conducted during the inaugural meeting of the **Global Research and Mentorship Subcommittee (GRMSC)** revealed a significant demand for structured mentorship and collaborative research opportunities. The survey, which gathered insights from 21 mentees and 31 faculty members, laid the foundation for the **GREMP**.

With initial guidance from the **Center for the Improvement of Mentored Experiences in Research (CIMER)**, GRMSC spent a year designing a mentorship program centered on clear goals, expectations, and transparency. CIMER's expertise helped elevate the program, ensuring the creation of meaningful mentor-mentee relationships that drive global collaboration.



Manju Sharma
Associate Professor
University of California San Francisco

The Global Research and Scientific Innovation Committee (GRSIC) is dedicated to fostering global health research, mentorship, and capacity building. Its key initiative, the **Global Research and Mentorship Program (GREMP)**, connects emerging researchers from Lower Middle-Income Countries (LMICs) with experienced mentors from the American Association of Physicists in Medicine (AAPM). GREMP enhances research capabilities, mentorship experiences, and institutional development through these partnerships. This article explores GREMP's history, structure, and measurable impact on the medical physics community.

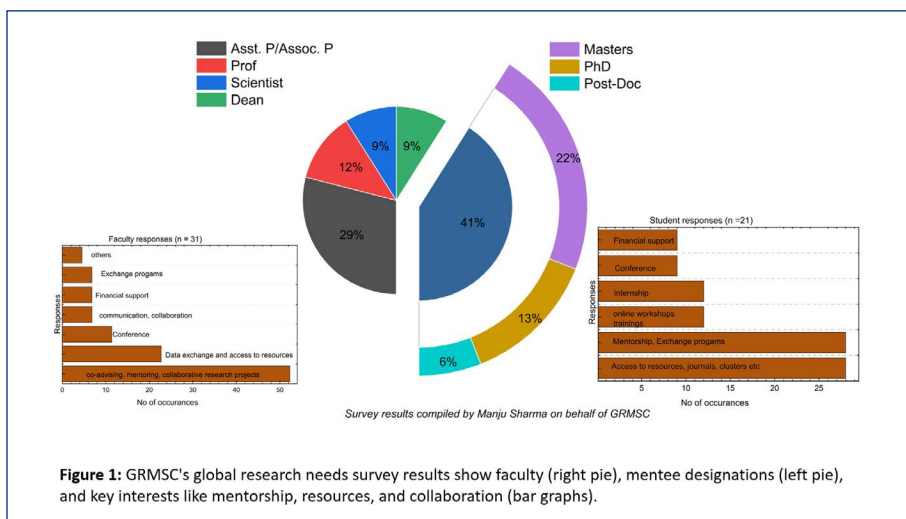


Figure 1: GRMSC's global research needs survey results show faculty (right pie), mentee designations (left pie), and key interests like mentorship, resources, and collaboration (bar graphs).

GREMP Theme

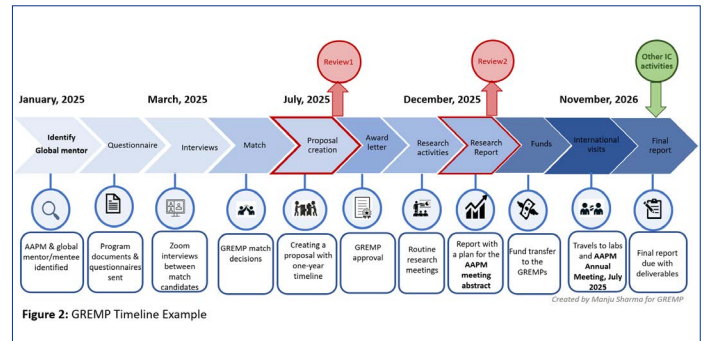
"To connect mentees from developing medical physics programs with experienced AAPM members from established research programs, fostering mentorship and collaboration to develop sustainable educational and research capacity."

INTERNATIONAL COUNCIL REPORT, Cont.

Who Can Participate in GREMP?

GREMP forms **Mentoring Quads (MQs)** by pairing **international mentor-mentees from developing medical physics programs with AAPM mentor-mentees from established research programs**. The international mentee is a PhD student in a medical physics-related program, preferably at an early stage, advised locally by their PhD advisor (i.e., **international mentor**). These MQs are carefully matched based on research interests, mentorship objectives, and informational interviews, enabling collaborative research projects aligned with the international mentee's thesis.

GREMP Timeline



Application Phase

- **International Mentor Submission:** Complete a questionnaire and submit an application packet, including:
 - o A personal statement expressing interest in GREMP.
 - o Curriculum Vitae (CV).
 - o Names of potential Ph.D. students.
- **Mentor Matching:** GRMSC-led virtual interviews, selected international mentors propose five prospective AAPM mentors. GRMSC facilitates matching through a similar process.
- **Formation of MQs:** After identifying an AAPM mentor, MQs collaborate through virtual meetings and presentations to develop a research proposal aligned with the mentee's thesis.

Program Activities

- **Enrollment:** Participants officially join GREMP upon proposal approval.
- **Collaboration:** MQs meet regularly to review research progress.
- **Metrics of Success:** Establish clear scientific goals (e.g., joint publications, grants) and create a comprehensive research plan.
- **Oversight:** GRSC ensures alignment with GREMP's objectives.

While the structured program lasts for nearly two years (**Figure 2**), GREMP encourages long-term collaborations among participants and institutions. In the latter half,



Current and past contributors GREMP

A heartfelt tribute to Dr. Wu Liu for his invaluable contributions to GREMP.

INTERNATIONAL COUNCIL REPORT, Cont.

participants are encouraged to engage in networking activities through GREMP cohorts (**Figure 3**), or other GRSIC-led initiatives.

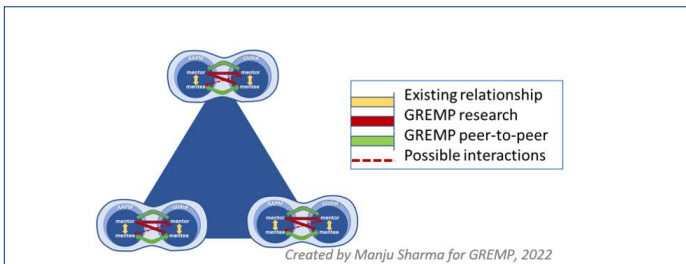


Figure 3: GRSIC GREMP cohort research engagement activities

GREMP Funding

Each MQ receives up to **\$10,000 in travel awards** to support mentorship and research activities, covering travel, accommodations, and registration. Institutional visits foster sustainable collaborations by addressing local needs and strengthening ties with clinical and research stakeholders.

Do you work in LMIC?

Join GREMP and elevate your research.

Apply by February 2025 → [GREMP 2025 RFA!](#)

GREMP Impact: Insights and Outcomes

Over the past three years, GRMSC has engaged with approximately 25 applicants worldwide [**Figure 4**], addressing their aspirations, challenges, and the complexities of international collaboration. By connecting participants with tailored resources within GRSIC, GREMP ensures that researchers receive the guidance they need to advance their work effectively.



Figure 4: GREMP applicants across the world

GREMP Impact in Brazil: Advancing Nanoparticle Research in Cancer Therapy

GREMP Cohort 2022: Brazil MQ
Dr. Eder Guidelli and Ms. Mileni Isikawa (University of São Paulo) paired with Dr. Ross Berbeco and Mr. Toby Morris (Brigham and Women's Hospital).

The NanoDose group, led by Dr. Guidelli, has developed two groundbreaking nanoparticle systems: metal@PAH and ScNP@PS. Through GREMP, Dr. Guidelli and Ms. Isakawa collaborated with Dr. Berbeco and Mr. Morris to conduct in-vitro experiments at Dr. Berbeco's lab. Their work included MTT assays to evaluate the cytotoxicity of the nanoparticles in human and mouse cancer cells and clonogenic assays to study their interactions with X-rays.

Accomplishments: Ms. Isakawa's research has been honored with a Santander Fellowship and published in a high-impact journal [Advanced Healthcare Materials](#) (2024, 13, 2400372). Furthermore, Dr. Guidelli received the prestigious Fulbright Junior Faculty Award, highlighting the impact of GREMP collaborations in advancing cancer therapies.

GREMP Impact: Radiomics Standardization in Radiotherapy in Sri Lanka

GREMP Cohort 2022: Sri Lanka MQ
Dr. Jeyasingam Jayasugiththan and Mr. Buddhika Srimal Sesath (University of Colombo) paired with Dr. Quan Chen (City of Hope) and Jingwei Duan (University of Alabama at Birmingham).

Dr. Jeyasugiththan from the University of Colombo, specializes in Monte Carlo methods and radiomics in radiotherapy. He and his mentee Mr. Sesath, collaborated with Dr. Chen and Dr. Duan on a project focused on standardizing CT-based radiomic features. Mr. Sesath developed a custom phantom with 18 material cartridges to facilitate standardization and successfully tested it at Dr. Chen's lab and four hospitals in Sri Lanka.

INTERNATIONAL COUNCIL REPORT, Cont.

“ *I just want an experienced person to look at my work and advice-
Is it worth exploring? Should I change my direction?* ”

-----Dr. Hashikin from Sains University in Malaysia

Accomplishments: The collaboration produced promising results, including harmonized data analysis focused on reproducibility thresholds and protocol standardization. Findings were presented at the 2023 AAPM Annual Meeting, with further insights under preparation for publication.

GREMP Impact in India: Predictive Models in Cervical Cancer Therapy




GREMP Cohort 2022: India MQ
Dr. Arun Oinam, Dr. Vivek Kumar, and Ms. Himani (Punjab University) paired with Dr. Issam El Naqa and Dr. Kurukulasuriya Ruwani Fernando (Moffitt Cancer Center).

Dr. Kumar, from Panjab University, India, in collaboration with Dr. Oinam from the Postgraduate Institute of Medical Education and Research (PGIMER), are advancing research in image-guided adaptive brachytherapy, dosimetric verification, and radiobiological modeling. Through GREMP, they and their mentee, Ms. Himani, are collaborating with experts in machine learning and radiomics Dr. El Naqa and Dr. Fernando to develop an MRI-based model for predicting gastrointestinal toxicity in cervical cancer patients undergoing brachytherapy.

Accomplishments: This collaboration, leveraging an in-house patient cohort, has expanded to include partnerships with physicians and represents the first clinical application of radiomics in this region of India. Ms. Himani is preparing an abstract of the initial findings, for the 2025 AAPM Annual Meeting.

GREMP Impact in Malaysia: Advancing Theranostic Radionuclides



GREMP Cohort 2023: Malaysia MQ
Dr. Chai Hong Yeong and Ms. Shalaine Tatu (Taylor's University) paired with Dr. Cheenu Kappadath and Mr. Brian Kelley (University of Texas MD Anderson)

Dr. Yeong, from Taylor's University in Malaysia, is an expert in the development of low-resource radionuclides for theranostic applications such as samarium-153 (^{153}Sm). Through the GREMP program, she and her mentee, Ms. Tatu, collaborated with Dr. Kappadath and his mentee, Mr. Kelley, from MD Anderson, a leading lab in radionuclide internal dosimetry. The dosimetric performance of ^{153}Sm as a therapeutic radionuclide was characterized. Animal models were used to assess the clinical safety and efficacy of ^{153}Sm -labelled microspheres to treat liver cancers.

Accomplishments: Ms. Tatu presented her initial findings at the AAPM 2024 Meeting, earning the prestigious **Gold Ribbon Award** for her poster. She also **won Best Oral Presentation during the recent Asia-Oceania Congress on Medical Physics**. A journal article on the collaborative work is now under review. Her experiences and insights from this impactful collaboration are detailed in a recent [LinkedIn post](#).

GREMP Impact in Brazil: Advancing Theranostic Platforms with Hyperthermia and Ultrasound



GREMP Cohort 2023: Brazil MQ
Dr. Theo Z. Pavan and Mr. Jose Eduardo Freire (University of São Paulo) paired with Dr. Paul Carson and Dr. Xueding Wang (University of Michigan).

INTERNATIONAL COUNCIL REPORT, Cont.

Dr. Pavan's laboratory at the University of São Paulo specializes in medical instrumentation, with an emphasis on ultrasound techniques for therapy and diagnostics, including magnetic nanoparticle-induced hyperthermia. Through the GREMP program, Dr. Pavan and his mentee, Mr. Eduardo Freire, partnered with Dr. Carson and Dr. Wang from the University of Michigan, to develop a theranostic platform integrating magnetomotion, ultrasound, photoacoustic imaging and hyperthermia.

Accomplishments: The collaboration is ongoing, with Mr. Eduardo Freire receiving a fellowship from the São Paulo Research Foundation (FAPESP - Grant: 2024/14387-9) to support a one-year research internship at the University of Michigan under the supervision of Dr. Wang, who heads a project to map the dose deposited by a clinical X-ray or charged particle radiation beam in tissues using the ionizing radiation acoustic imaging (iRAI) technique. Mr. Freire's Ph.D. project will integrate iRAI-like imaging with magnetically-stirred nanoparticles for heating and other applications. He is preparing an abstract for the 2025 AAPM Meeting to share his latest advancements.

Challenges and Insights

Over the past three years, GREMP has highlighted the vital role of mentorship and teamwork in global research. Despite challenges such as regulatory differences and infrastructure gaps, GREMP has fostered a thriving community of researchers. Its structured, adaptable approach continues to drive innovation and capacity building in LMICs.

Looking Ahead

As GREMP continues to grow, its mission remains clear and unwavering: **to empower researchers from all corners of the world and foster a culture of innovation and collaboration that transcends borders.** Based on MQ's feedback, GRMSC is actively refining GREMP's process. At present, we are introducing questionnaires and scoring cards for application evaluation, alongside plans to survey AAPM researchers to identify new collaboration opportunities.

*A special thanks to **Ms. Kai Huang**, 2024 ICAMP Associate, for her invaluable contributions to these new initiatives.*

Ways to Get Involved with GREMP

Join GREMP in shaping the future of global health and medical physics. Your participation as a mentor, mentee, or supporter can drive meaningful change:

Are you an LMIC Researcher interested in collaboration?

- Apply by February 15, 2025, via the GREMP Portal.

Are you interested in supporting GREMP?

- Contribute funding or volunteer. Contact grempp@aapm.org.

Broaden Your Impact with GRSIC Programs

Explore other programs from GRSIC that foster global health and collaboration:

Global Health Seed Grant

- Funding for innovative research projects.
- Intent Deadline: March 18, 2025
- Details: 2025 Global Health Seed Funding Grant

ICAMP (International Council of Associates in Medical Physics)

- Collaborate with global experts in advancing medical physics.
- Deadline: March 10, 2025
- Details: ICAMP Portal

Volunteer with GRSIC

- Explore opportunities to contribute your expertise – Link to GRSIC

Let's work together to push the boundaries of Medical Physics Research! ■

Let's work together to push the boundaries of Medical Physics Research!



AMERICAN ASSOCIATION
of PHYSICISTS IN MEDICINE

Call for Nominations

Nominations are now being accepted for the following AAPM awards and honors:

William D. Coolidge Gold Medal • Edith H. Quimby Lifetime Achievement Award
Marvin M.D. Williams Professional Achievement Award • AAPM Fellow
John Laughlin Early-Career Scientist Award • Honorary Membership

All nominations must be completed by February 26, 2025

[Visit the AAPM Awards and Honors website page for more information.](#)

REGISTER NOW!

AAPM
SPRING CLINICAL MEETING

Mark your calendar and
make plans to attend.

**Registration
and Housing
NOW Open!**

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2025



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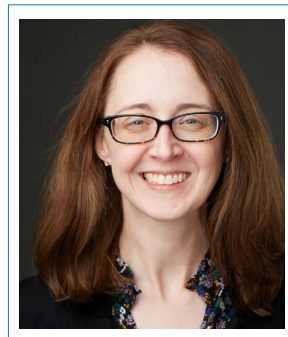
Special Interest Feature: Undergraduate Students

EDIC SESSIONS AT THE 2024 AAPM ANNUAL MEETING

Heather Whitney, PhD | University of Chicago

Once again the AAPM Annual Meeting held two events specifically for undergraduate students in partnership with the Society of Physics Students (SPS). SPS is the national organization for undergraduate students in physics and astronomy and is part of the American Institute of Physics federation along with AAPM.

The first event was an Undergraduate Research Competition, open to students presenting research projects completed before the conferral of their undergraduate degree. This year the competition included awards for best poster and for best oral presentation. The winners receive up to \$1500 each in travel support to the 2025 Sigma Pi Sigma (Physics Honor Society) Congress, where they will present their award-winning research. The awards are generously supported by both SPS and AAPM.



The panel of judges was comprised of **Abdullah A. Alshreef, PhD; Marian Axente, PhD; Jessica Fagerstrom, MEd, PhD; Xiuxiu He, PhD; Jun Hong, PhD; Peter Jermain, PhD; Kip Matthews, PhD; Stephanie Parker, MS; John Roeske, PhD; Meysam Tavakoli, PhD; Christopher Tien, PhD; Brian Winey, PhD; and Suk Whan Yoon, PhD.**

The second event was an undergraduate student gathering, jointly sponsored by the Undergraduate Summer Fellowship

and Outreach Subcommittee ([SUFP](#)) and Diversity Recruitment through Education and Mentoring Program ([DREAM](#)). Students gathered to hear overviews of medical physics and tips on how to navigate the AAPM Annual Meeting, shared by **Parminder Basran, PhD; Gevork Gevorkyan, PhD; and Heather Whitney, PhD.** At the end, they all shared the right-hand rule handshake, an SPS tradition.



We are grateful to SPS and AAPM for sponsoring these undergraduate research awards and were excited to welcome this wonderful group of undergraduate students to our annual meeting. The competition participants presented strong work, and enthusiasm for the field of medical physics was evident at the student gathering. We look forward to continued future undergraduate-focused programming at the AAPM Annual meeting. ■

Undergraduate Research Competition Winners:



Best Oral Presentation

Eli Weber, University of Washington

Title: Modeling T Cell Recirculation between Tumor and Lymph Nodes and the Effects of Irradiation in Novel Transgenic Mouse Model for Cell Tracking

Advisor: Clemens Grassberger, University of Washington



Best Poster Presentation

Udbhav Ram, McMaster University/The University of

Alabama at Birmingham
Title: Evaluation of Ethos 2.0 High-Fidelity Mode for Multi-Met, Single-Isocenter Stereotactic Radiotherapy

Advisor: Carlos E. Cardenas, University of Alabama at Birmingham

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New Leadership and Exciting Updates

ANNUAL MEETING SUBCOMMITTEE REPORT

Happy 2025! As we welcome the new year, we are excited to introduce the new AMSC leadership. My name is **Samuel Brady, MS, PhD, FAAPM**, and I am a pediatric imaging medical physicist at Cincinnati Children's Hospital Medical Center, as well as the new chair of AMSC. I am working closely with our AMSC Vice-Chair, **Lei Ren, PhD, FAAPM**, a therapeutic medical physicist from the University of Maryland.

We are sad to say goodbye to our former Chair, **Ingrid Reiser, PhD, FAAPM**, who served as Vice-Chair from 2017 to 2020 and Chair from 2020 to 2024. Ingrid played an instrumental role in streamlining the development of the Annual Meeting, improving the end-user experience by enhancing meeting structure and organization, introducing on-demand access to all sessions, and managing the complexities of hosting annual meetings during the pandemic. Ingrid's leadership and steady hand will be missed, and we wish her the best of luck in her many other AAPM endeavors, especially as the new Vice-Chair of Science Council!

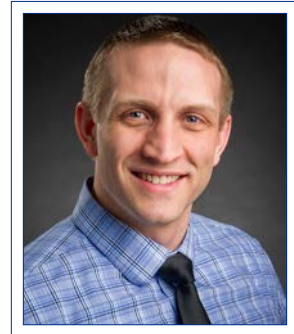
New Meeting Schedule

The 2025 AAPM Annual Meeting & Exhibition will return to Washington, DC, with the theme "Coming Together to Forge Ahead!" This year, our meeting will begin on Sunday, July 27, and conclude on Wednesday, July 30. Full-day sessions will be held Sunday through Tuesday, and the meeting will close on Wednesday at 4:00 PM. This new format will provide AAPM members with a unique opportunity to go to Capitol Hill on Thursday for a day of advocacy and engagement with key leaders and decision-makers who impact clinical medical physics practice.

Program Structure

The 2025 AAPM Annual Meeting & Exhibition will build upon the meeting structure introduced at our 2024 Annual Meeting held in Los Angeles, CA. Sessions will be organized based on specializations: (1) Professional, (2) Diagnostic and Interventional Radiology Imaging, (3) Radiopharmaceuticals, Theranostics, and Nuclear Medicine, (4) Therapy, and (5) Exhibit Hall and Vendor Showcase. In addition to our standard five session tracks, we will have an all-day Ultrasound specialty program on Tuesday, July 29.

The feedback from 2024 attendees was overwhelmingly positive regarding the new session organization. This year, we will introduce indicators to help attendees differentiate between educational and scientific sessions. We are grateful for the feedback we receive from AAPM members each year; the Annual Meeting is your meeting, and we are always eager to make improvements to enhance the attendee experience.



Samuel L Brady, PhD
Cincinnati Children's Hospital Med Center



Lei Ren, PhD
University of Maryland

ANNUAL MEETING SUBCOMMITTEE REPORT, Cont.

Keynote Sessions and Early-Career/Mentor Lounge

This year, we are excited to introduce two new keynote sessions on Sunday and Wednesday. We will come together as a society to open and close the meeting, hearing from important voices both inside and outside our profession. These luminaries will provide perspectives that will set the stage for a successful scientific and educational event. Additionally, we will have a dedicated lounge for students, early-career professionals, and mentors. This lounge will offer a space for our members to connect, network, and share experiences as professionals in the field of medical physics.

Come Celebrate Together

Each night will feature events for our members to come together and celebrate. This year's "Night Out" will begin with an opening party on Sunday evening, followed by the

Award and Honors Ceremony & Reception on Monday and the Closing Party on Tuesday. As always, we will continue to offer and expand upon the amenities you love at the annual meeting. This year, there will be three box lunches, poster sessions with drinks, and an opportunity to give back to the community through an AAPM-sponsored service project.

We are looking forward to an exciting and enriching 2025 Annual Meeting & Exhibition and are confident that the changes we've implemented will enhance your experience. Together, we will continue to advance the field of medical physics and foster collaboration among professionals from diverse specialties. We invite you to join us in Washington, DC, to contribute to the success of this important event. Thank you for your continued support of AAPM, and we look forward to seeing you in July! ■



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ASTRO's Adaptive Radiation Therapy Safety White Paper

ASTRO QUALITY IMPROVEMENT

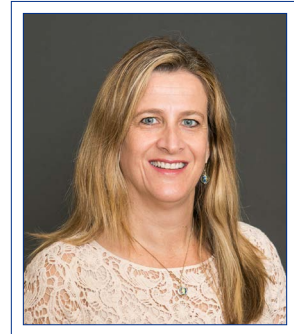
Samantha L. Dawes, CMD, is the Director of Quality Improvement at ASTRO.

Indrin J. Chetty, PhD, is co-chair and first author of the Adaptive Safety White Paper and is also vice-chair of ASTRO's Clinical Affairs and Quality Council Steering Committee.

Jean M. Moran, PhD, is vice-chair of ASTRO's Multidisciplinary Quality Assurance Subcommittee which oversees the development of ASTRO's safety white papers.

Quality and Safety Considerations for Adaptive Radiation Therapy (ART) is the latest topic in a series of safety white papers published by the American Society for Radiation Oncology (ASTRO).¹ Following the experience with the other safety white papers, ASTRO convened an interdisciplinary task force of radiation oncologists, medical physicists, a dosimetrist and a radiation therapist to provide expert consensus on key workflows and processes for ART. There were six medical physicist task force members, with one formally representing the American Association of Physicists in Medicine (AAPM). They provided comprehensive input across all the various adaptive platforms and modalities. The ART safety white paper has been published in the Red Journal and is endorsed by AAPM, the American Society for Radiologic Technologists and the American Association for Medical Dosimetrists. It is the first society-developed paper on this emerging technique addressing quality processes and patient safety.

In 2010, ASTRO launched its Target Safety initiative to spearhead efforts to improve quality and safety in radiation oncology. The development of safety white papers is a component of this ongoing campaign to promote the delivery of safe, high-quality care to patients. Safety white papers often focus on a particular technology or process step and describe recommended procedures and considerations for the safe delivery of radiation therapy.² This safety white paper builds upon previous ASTRO publications related to image-guided radiation therapy,³ intensity-modulated radiation therapy,⁴ stereotactic radiosurgery and stereotactic body radiation therapy,⁵ and AAPM task group reports. Quality and safety processes have always been an integral part of the radiation therapy workflow, and medical physicists continue to be key to the implementation and management of these essential processes. As treatment techniques have become increasingly complex, the potential for safety events to reach the patient has increased as well. As a result, ASTRO's safety white papers serve an important role at the intersection of radiation oncology disciplines that support the planning and delivery of safe and effective radiation therapy and have been a valuable component of initiatives to refine and standardize processes and quality management efforts to reduce the risk of safety events.²



Samantha L. Dawes, CMD
ASTRO



Indrin J. Chetty, PhD
Cedars-Sinai Medical Center



Jean M. Moran, PhD
Memorial Sloan Kettering Cancer Center

ASTRO QUALITY IMPROVEMENT, Cont.

ART represents a paradigm shift in the traditional roles and workflow of radiation therapy. This technique improves the precision of radiation dose delivery to targets, allowing for dose escalation and/or minimization of dose to normal tissues. It is performed via offline or online methods and although ART has occurred in its simplest forms in clinical practice for a long time, recent technological developments have enabled more clinical applications of ART. As this technology gains wider adoption, practices must also navigate the challenges of acquiring new equipment and transitioning to new or updated software. Since little formal guidance exists on adaptive processes, the subject matter experts from ASTRO's ART Safety White Paper fill a gap on how to establish and maintain an adaptive program. The ART safety white paper covers quality and safety aspects of ART including programmatic elements, personnel requirements, workflows, and quality management.

Establishing and maintaining an adaptive program requires a team-based approach of appropriately trained and credentialed staff as well as significant resources, specialized technology, and implementation time. Medical physicists play an integral role in establishing an adaptive program from the initial program design supporting the best adaptive method to suit their individual practice through equipment selection, acceptance testing and commissioning, and training. Physicists must factor technology selections for both new and existing equipment, vault capacity/construction requirements, and available system and platform capabilities. Information technology infrastructure is also an important consideration. Medical physicists must coordinate with engineers, vendors, and facility design and construction team members to implement a safe and efficient information system to support the increased imaging and patient data, as well as data transfers, which occur in the adaptive workflow.

The safety white paper acknowledges the importance of adequate staffing, including for medical physics, because an ART service requires dedicated physicist full-time equivalent staff for adaptive workflow development, planning procedures, quality assurance (QA) activities, and daily treatment delivery coverage. The paper also touches on the physician extender role and even with the enablement of parallel workflow steps and

automated processes, intrinsic factors of physicist effort remain because of the ongoing need for treatment plan generation and QA.

Teamwork and collaboration are needed to promote a supportive environment given the complex, time sensitive processes/workflows and shared responsibilities of the adaptive team. Clear understanding between team members about each person's scope of practice limitations and specific responsibilities is essential. Training and competency assessments for each ART task enhances the collaborative process of ART and provides additional support to the team.

Training is an important aspect of establishing and maintaining an adaptive program. Medical physicists should gain proficiency in all adaptive processes. Training should include components that encompass the entire ART workflow, including how to use the adaptive equipment and system/platform, completing treatment planning and plan evaluation procedures, and executing treatment delivery.

Quality management is an essential component of ART, and the implementation of routine QA processes and ongoing quality initiatives often fall squarely under the responsibilities of medical physicists. ART is inherently complex, so a well thought-out quality program should be established to support it. Quality management and safety considerations for ART should encompass all aspects of conventional radiation therapy with additions and/or modifications specific to ART as needed. The ART safety white paper divides quality management into commissioning, QA, and quality improvement. The recommendations provided are overarching and should be tailored to individual practice workflows and specific hardware and software.

Adaptive treatment machine(s) and planning system(s) should be commissioned following AAPM guidance documents. Table 5 in the safety white paper provides a list of the AAPM guidance documents for commissioning and QA of ART equipment and indicates the relevant document(s) pertaining to each modality. The table gives recognition to AAPM's excellent volunteer efforts and will give rise to future updates of the paper as AAPM publishes specific ART reports to support the service.¹ Additionally,

ASTRO QUALITY IMPROVEMENT, Cont.

image registration, image quality, motion management and interoperability should be part of commissioning processes.

Standard QA processes for ART, using the well-defined guidance from AAPM, should be followed. Because of the compressed timeline associated with ART, routine QA processes are essential to safe and effective delivery of adaptive treatments. In addition to the AAPM resources listed in Table 5, Table 6 summarizes the processes that physicists must consider as part of their comprehensive QA program.¹

Quality improvement initiatives are an important component of quality management for radiation therapy, and ART is no exception. Establishing standard operating procedures and treatment protocols will support team learning and standardize workflows, providing invaluable documentation to support effective communication and consistency in practice. These workflows and processes should be mapped and evaluated so that risk analysis of each step is assessed and potential hazards identified and mitigated.⁶ Other supportive documentation requirements for an ART program include templating a treatment directive to guide staff on patient-specific considerations. The directive (or written order) enables simulation, treatment planning, and delivery requirements to be performed accurately in accordance with procedures and protocols. It is also a useful tool to highlight when patient requirements dictate the need to deviate from standardized processes.

A written or video sign-out process as part of standard documentation also supports safe, high-quality care. This enables the radiation oncologist to provide all relevant case details to the treatment team and is a valuable tool for the adaptive team. Standard quality improvement tools such as accreditation,⁷ incident learning,⁸ and peer review⁹ are all useful tools to support medical physicists.

Quality and safety considerations are an important focus area given increased clinical prevalence, compressed timelines and associated complexity of ART. As a result, ART comes with challenges which must be considered for the safe implementation in routine practice. Given the

variation in imaging and treatment technologies, along with complex workflows, additional clinical effort and support from the medical physics team are required to maintain safe ART programs. This ASTRO safety white paper helps support these endeavors. ■

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OLA Updates for NMP in 2025

ABR UPDATE

In January 2020 the ABR implemented Online Longitudinal Assessment (OLA) as Part 3 of the four-part Continuous Certification (CC, formerly MOC) program for medical physicists. Many participants completed their fifth year at the end of 2024 and received a performance evaluation based on the most recent 200 questions answered.

Before an individual question can contribute to a diplomate's cumulative score, it must have been answered by 50 participants and rated by at least 10 question raters. The number of diplomates answering a given question will determine how long until that question can be factored into the cumulative score as well as limit the number of questions that can be deployed annually.

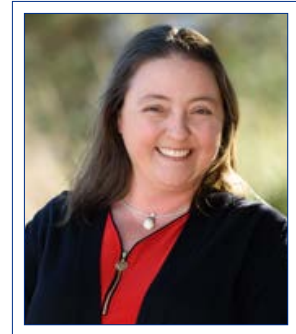
Medical physicist diplomates are required to answer at least 52 questions each year for each certificate they hold. All questions can be "banked" for up to four weeks from the time they are delivered to the diplomate; after that time, if the diplomate won't have answered 52 questions by the year's end, they are considered forfeited and count as wrong answers. Additionally for diplomates specializing in therapeutic medical physics (TMP) and diagnostic medical physics (DMP), OLA delivers 104 questions per year (two each week) and permits up to 10 declines per year per certificate.

For nuclear medical physics (NMP) diplomates, however, OLA has delivered only one question each week. While allowing diplomates to meet the goal of 52 questions per year, this did not permit declines. Given the comparatively small number of NMP physicists enrolled in OLA, deploying a larger number of questions at the start of the OLA process would have led to unacceptable delays in the calculation of cumulative scores.

These differences put NMP diplomates at a potential disadvantage in two ways. Receiving only one question per week meant they could fail to meet the annual question goal if banked questions were not answered in the same calendar year in which they were delivered. In addition, NMP diplomates didn't have the same opportunity as other diplomates to decline questions on topics that are not relevant to their clinical practice.

Now that OLA has been in use for five years, we have a robust database of available questions enabling the ABR to implement a few changes to the NMP OLA experience in 2025. First, NMP diplomates now have the opportunity to decline up to five questions per year. To ensure that the 52 question per year goal is still possible, when a question is declined, the NMP diplomate will immediately receive a replacement question. In addition, although questions continue to have a four-week shelf life, diplomates can use the full four weeks even if it extends into a new calendar year. The diplomate will receive credit in the appropriate year to ensure that the annual goal is met.

These updates should improve the OLA experience for all NMP diplomates while still making it possible for them to meet their Part 3 Continuing Certification requirements. ■



Jennifer Stickel, PhD
ABR Trustee
Colorado Associates in Medical Physics

Many ABR diplomates must have satisfied their OLA performance evaluation by December 31, 2024, either by exceeding their OLA passing standard or by passing a Continuing Certification Exam. New rules in 2025 make keeping up with OLA easier for nuclear medicine physicists.

ACR Accreditation & More: Info for Medical Physicists

UPDATES FROM ACR HQ

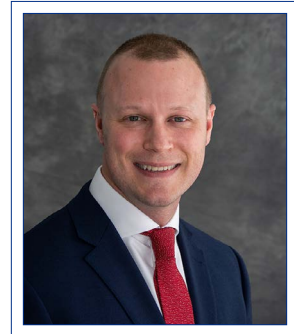
Changes to ACR Mammography Accreditation Program Testing Packet Personnel Qualification Forms

The Food and Drug Administration (FDA) has approved *the removal of Personnel Qualification Forms* from the ACR Mammography Accreditation Program (MAP) applications effective Nov. 25, 2024. The ACR requested this change in process with the FDA to help decrease burden at already stressed mammography facilities. Although the facility will no longer be required to submit the personnel qualification forms to the ACR for the Interpreting Physicians, Technologists or Medical Physicists, the facility is still required under federal law (MQSA) to ensure that all personnel meet these requirements prior to performing mammography. The Lead Interpreting Physician attests in the Mammography Survey Agreement that all personnel meet the qualifications under MQSA.

The ACR is in the process of updating our online accreditation system. Until the changes are made, please upload a non-completed form or blank sheet up paper in a PDF format in each required field. This information has been updated in the [MAP Testing Overview](#) and a notification was sent to all MAP facilities.

Nuclear Medicine QC Manual is Published!

You can find the new Nuclear Medicine QC Manual and all of ACR's other QC manuals on the [Medical Physics Resources page on acr.org](#). We have also added a link to provide feedback on select QC manuals via webform, which you can find below the manuals on the [Medical Physics Resources page](#). ■



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.

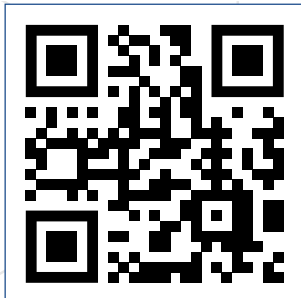
ATTENTION RESIDENTS: The application period for ACR's Richard L. Morin, PhD, Fellowship in Medical Physics will open January 14! Deadline will be March 1. see the [landing page](#) for details.

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- As an Industry Scientist or Regulatory Physicist,
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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).

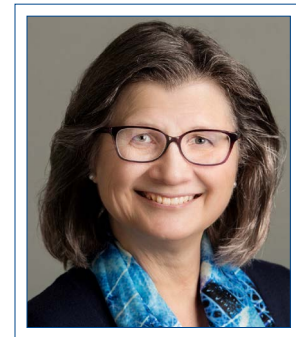
- As an Industry Scientist or Regulatory Physicist,
YOU HAVE OPTIONS.

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

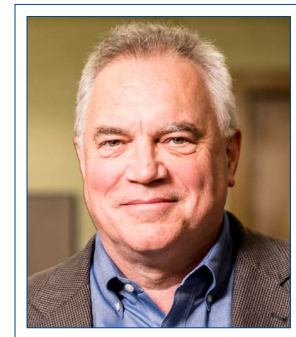
Report from the Medical Imaging and Data Resource Center (MIDRC)

AAPM-MIDRC SUBCOMMITTEE REPORT

[MIDRC](#), the Medical Imaging and [Data Resource Center](#), is beginning its fifth NIBIB and [ARPA-H](#) funded year! The MIDRC team, comprising researchers from AAPM, RSNA, ACR and the [Gen3 Data Commons](#), continues to make significant strides in enabling artificial intelligence and machine learning research, fostering collaborations between academia, industry, societies and government agencies in order to improve patient outcomes.



Maryellen Giger, PhD
University of Chicago



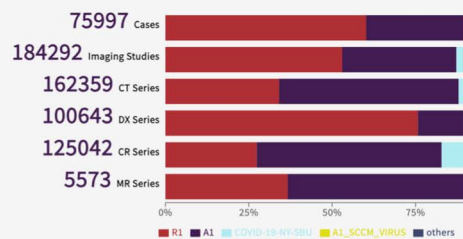
Paul Kinahan, PhD
University of Washington

Please direct inquiries to:
[Maryellen Giger, PhD, FAAPM](#),
[Paul Kinahan, PhD, FAAPM](#), or
[Emily Townley, AAPM MIDRC Program Manager](#)



MIDRC Data Commons

The Medical Imaging & Data Resource Center (MIDRC) Data Commons supports the management, analysis and sharing of medical imaging data for the improvement of patient outcomes. The data in MIDRC are open access in order to foster machine learning innovation through data sharing and include in addition to imaging files, patient demographic data, COVID-19 test results and other clinical data, harmonized study descriptions utilizing the LOINC playbook, and image DICOM tags for purposes of data filtering and selecting cohorts for analysis.



All data publication numbers as of December 2024

From COVID-19 to Oncology

MIDRC began in 2020 by publishing COVID-19 chest CTs, X-Rays and metadata, but is now also acquiring oncology imaging, such as low-dose CTs from lung cancer screening programs, and metadata from multiple new modalities, such as MRI and ultrasound. This pivot to include oncology makes MIDRC an even greater and more comprehensive resource for data scientists and researchers, providing open access to a comprehensive, diverse and high-quality dataset.

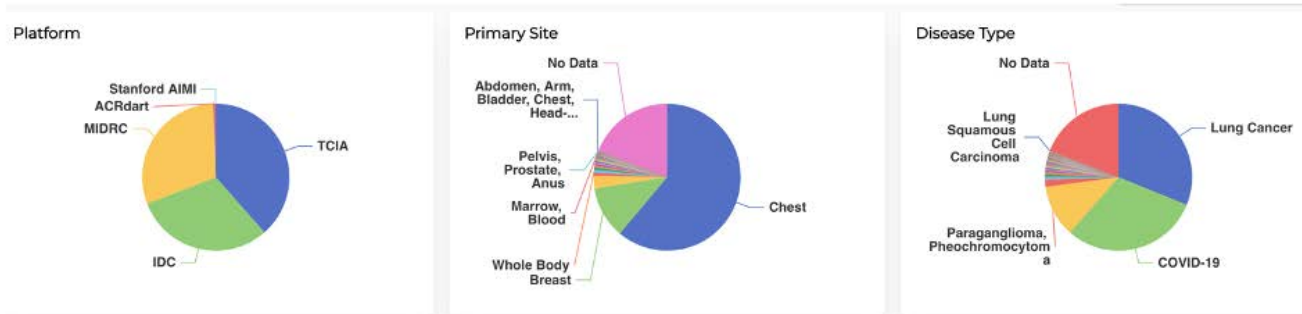
You can become an important part of MIDRC's efforts by facilitating a data contribution from your academic institution or hospital system (we are especially interested in data from rural or traditionally under-represented communities) – please contact any member of the [AAPM-MIDRC Subcommittee](#) or find information about data contributions on [MIDRC's website](#).

Come Index with Us!

In an exciting development, MIDRC has announced the launch of the new MIDRC BDF Imaging Hub ([BIH](#)), a transformative initiative designed to enhance data accessibility. The BIH, developed as part of the ARPA-H [Biomedical Data Fabric Toolbox](#), is an indexing tool for both open and restricted datasets. It functions as a 'one-stop shop' federated data search, discovery, and analysis platform that allows researchers to query and analyze data from independent data repositories/data commons or resources related to medical imaging. The BIH includes tools for searching, viewing, and analyzing data, making it simple to conduct research and gain insights.

AAPM-MIDRC SUBCOMMITTEE REPORT, Cont.

1,298,152 Imaging Series



A snapshot from the MIDRC BDF Imaging Hub, December 2024

As opposed to contributing actual data, indexing with BIH allows an organization to participate without its data ever leaving its original host data commons. After querying the BIH, a data user can then search through available imaging and metadata across multiple data commons and restricted datasets, learning exactly where to go to find the specific data they're after for their cohort. The BIH could be an especially useful tool for the discovery of rare disease data, where small amounts of data are spread across many different data commons platforms.

MIDRC has opened the BIH searchable catalog by indexing the NIH repositories TCIA and IDC, as well as the ACRdart portal and several datasets from Stanford University. We're interested in all types of data, modalities, diseases and body parts – you can reach the MIDRC team [here](#) or by contacting us directly to become part of the BIH by indexing your institution's data!

Congratulations to MIDRC's Grand Challenges Working Group (GCWG) and to the Winners of the Recently Concluded MIDRC XAI Grand Challenge

MIDRC's GCWG (primarily led by AAPM's Sam Armato, Karen Drukker and Lubomir Hadjiiski) recently concluded its third and most successful Grand Challenge yet, the XAI Grand Challenge: Decoding AI Decisions for Pneumonia on Chest Radiographs, aimed at advancing explainable AI for medical image analysis. Hosted by the MedICI platform team in Jayashree Kalpathy-Cramer's University of Colorado lab, the XAI Challenge required participants to develop and train explainable artificial intelligence/

machine learning models in the task of classifying MIDRC frontal-view portable chest radiographs for the presence of lung opacities associated with any type of pneumonia.

The Challenge awarded \$50,000 total of prize monies divided amongst the top 7 finalists. With 81 registered teams and over 500 final submissions, the Challenge was ultimately won by Ian Pan, MD, PhD (Brigham and Women's), with Mathieu Goulet, PhD (Centre régional intégré de cancérologie & Centre de recherche du CISSS de Chaudière-Appalaches) placing second, and Yijie Yuan (Johns Hopkins University) placing third.

An extremely well-attended December MIDRC Seminar moderated by GCWG, with the top three finalists discussing their methodologies, can be viewed (along with all past free and available MIDRC Seminars and presentations) on [MIDRC's YouTube channel](#).

MIDRC at RSNA

MIDRC enjoyed another year of being a stand-out presence at the RSNA Annual Conference in December 2024. In addition to hosting a Lakeside Learning Center booth where attendees could meet the MIDRC team, browse the data commons, and learn about MIDRC's [open and available tools and GitHub](#), there were MIDRC sessions, theatre presentations, and multiple hands-on demo sessions in the RSNA Deep Learning Lab.

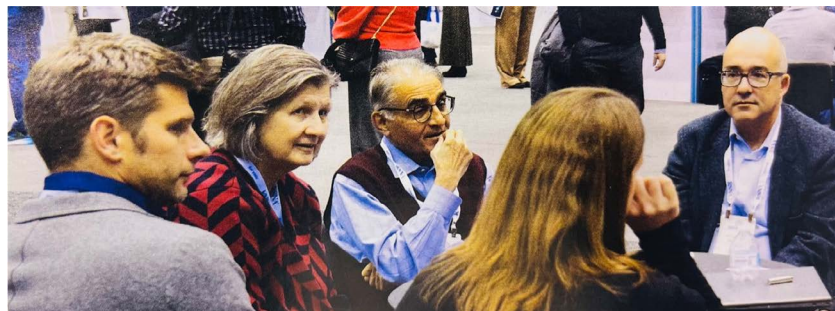
Looking Ahead

As we look to the future, MIDRC remains committed to

AAPM-MIDRC SUBCOMMITTEE REPORT, Cont.

advancing the use of medical imaging in healthcare and improving diagnostic capabilities. With new datasets, the development of innovative AI tools, and ongoing collaborations, we are excited about the potential that precision healthcare has to make a meaningful difference in the lives of patients worldwide.

We continue to thank all of the researchers, partners, and contributors who have helped MIDRC reach impressive milestones over the last four years, allowing us to push the boundaries of what's possible in medical imaging. Stay tuned for more updates and thank you for being a part of the MIDRC community! ■



Clockwise from top left:

MIDRC demonstrations at the RSNA Deep Learning Lab

AAPM's David Gammel visits with AAPM-MIDRC's (l-r) Dr. Heather Whitney, Dr. Hui Li, Dr. Karen Drukker and Dr. Jordan Fuhrman

NIH's Dr. Rui Carlos de Sá, AAPM President Dr. Mahadevappa Mahesh and AAPM staff, Emily Townley

MIDRC co-PI, Dr. Paul Kinahan, presents on MIDRC at the RSNA Innovation Theater

Gen3's Dr. Chris Meyer, MIDRC PI Dr. Maryellen Giger, Dr. Kris Kandarpa and Dr. Rui Sá (both, NIH) and (back) MIDRC co-lead PM, Katie Pizer (University of Chicago)



2025

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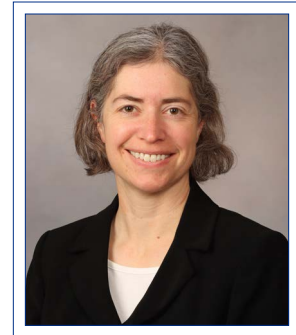
Congratulations to the 2022 Highly Ranked Scholars in Medical Physics

PERSONS IN THE NEWS

ScholarGPS is a new analytics platform, designed to identify and analyze the impact of scholarly works across 177 different disciplines. Medical physics is one of those disciplines, and ScholarGPS lists 28 highly influential scholars in medical physics for 2022. Most of these scholars are AAPM members, and many of their names are recognizable for their AAPM volunteer contributions in addition to their scholarly achievements. Congratulations to all of these medical physics scholars!

List of 2022 Highly Ranked Scholars in Medical Physics (Copyright © 2024 Meta Analytics LLC)

1. John M. Boone
2. David A. Jaffray
3. D.W.O. Rogers
4. Jeffrey H. Siewerdsen
5. Daniel A. Low
6. Paul J. Keall
7. Radhe Mohan
8. Jeffrey F. Williamson
9. Ravinder Nath
10. Kunio Doi
11. Ehsan Samei
12. Jan Seuntjens
13. Lei Xing
14. Maryellen L. Giger
15. William R. Hendee
16. Aaron Fenster
17. Iwan Kawrakow
18. Thomas R. Mackie
19. B. Gino Fallone
20. Geoffrey S. Ibbott
21. Larry A. DeWerd
22. Fang-Fang Yin
23. Sasa Mutic
24. Chen-Shou Chui
25. Willi A. Kalender
26. Jeffrey V. Siebers
27. Marcel Van Herk
28. Cynthia H. McCullough



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