AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

IMPROVING HEALTH
THROUGH MEDICAL PHYSICS

AAPM NEWSLETTER

November/December 2020 | Volume 45, No. 6

Special Interest Feature:

Education Council

IN THIS ISSUE:

COVID-19 UPDATE

Notice as of Sunday, November 8, 2020, 9AM Eastern Time.

- COVID-19 Information for Medical Physicists
- All AAPM in-person meetings, plans for AAPM funded travel and meetings of other groups at HQ are to be canceled through December 31, 2020.

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

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SUBMISSION INFORMATION

Please e-mail submissions
(with pictures when possible) to:
newsletter@aapm.org
AAPM Headquarters
Attn: Nancy Vazquez

PUBLISHING SCHEDULE

The AAPM Newsletter is produced bi-monthly.
Next issue: January/February 2021
Submission Deadline:
December 4, 2020
Posted Online: Week of January 3, 2021

CONNECT WITH US!

Editor's Note

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

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

MEDPHYS 3.0 WEBINARS

The Medical Physics 3.0 (MP3.0) Webinar Series on Transformational Medical Physics provides monthly one-hour webinars free to members and the public. Moderated by MP3.0 Chair Ehsan Samei (Duke University), event topics are in the spirit of this initiative to ***redefine, reinvigorate, and promote the practice of sustainable excellence in medical physics.***

How Does Transformational Medical Physics Look When It Comes to Radiography?

Thursday, December 10, 2020 | 12:00 pm ET

Speaker: Jered Wells, Duke University

How Can Physicists Meaningfully Interact with Administrators?

Thursday, January 14, 2021 | 12:00 pm ET

Speaker: Dan Pavord, Allegheny General Hospital

Why Do Physicists Need High Competence in Patient Interactions?

Thursday, February 11, 2021 | 12:00 pm ET

Speakers: Todd Atwood, UCSD; Derek Brown, UCSD; Laura Padilla, VCU Health

What's Up with Imaging Protocols?

Thursday, March 11, 2021 | 12:00 pm ET

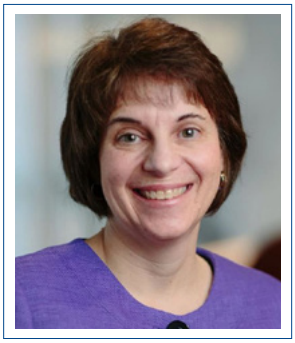
Speakers: Tim Szczykutowicz, University of Wisconsin; Justin Solomon, Duke University

For additional details and a complete list of upcoming events, visit www.aapm.org/announcements/MedPhys30WebinarSeries.asp

WHAT'S IN IT FOR ME?

CHAIR OF THE BOARD'S REPORT

Cynthia McCollough, PhD | Mayo Clinic



As I come to the end of my time as an officer of AAPM, I want to share some closing thoughts about our organization, how it functions, and how our dues are spent.

1) **AAPM's work is accomplished by member volunteers, who are giving freely of their personal time to invest in our organization and our profession.** Also, leadership roles in AAPM are extremely demanding. The deluge of email and committee meetings takes a lot of time (hours per day), there are rarely easy answers or simple solutions to big problems, everyone seems to have an opinion on which way to do things (and only occasionally are they the same), no matter what you do someone will complain (usually loudly), and rarely is one thanked for all that he/she is doing on behalf of AAPM, our profession, and our patients. So please,

   a. Take time to thank our volunteers, especially our leaders.
   b. Come to leadership with suggestions for improvement, rather than complaints.
   c. Be part of the solution. If you see work that needs to be done, or done better, volunteer (more on how to volunteer below).

2) **Our volunteers are assisted by an amazing headquarters team, led by our awesome Executive Director Angela Keyser.** They are association professionals; several of them are certified in their specialty (yes, they have certification requirements also) that know how to put on meetings like our Annual Meeting. It is a LOT of work. I've been behind the scenes to see what goes into putting on such a meeting and it's so much more than I ever imagined. Our staff takes care of all the financial and business tasks associated with operating a large non-profit organization, of course under the guidance of the Board and according to our Association's By-Laws and Rules.

3) **AAPM could not do what it does without our headquarters team, but members are the ones who:**

   a. solicit proposals and prepare all aspects of our meeting programs, including the spring clinical meeting, annual meeting, scientific and educational programs at RSNA;
   b. give presentations at our meetings and represent AAPM at meetings of sister societies;
   c. write questions for members to obtain CAMPEP-approved continuing education credits;
   d. evaluate task group proposals, prepare task group reports, and review task group reports to ensure the highest quality;

Twitter: @chmccollough

Email: mccollough.cynthia@gmail.com

"...please support AAPM with your dues and tax-deductible contributions. The work of AAPM directly advances and protects your profession, both for today and for the future!"

CHAIR OF THE BOARD'S REPORT, Cont.

e. contribute to international, DICOM, and IHE standards and submit comments to state and federal agencies, all of which seek to protect our patients and our ability to do the work that we do;
f. provide programming and recruitment efforts for students and trainees and historically under-represented communities;
g. provide educational content in low-to-middle income countries and coordinate with international medical physics organizations;
h. work with industry partners to ensure that they have a good experience when they exhibit at our meetings so that members have access to the information that they need when selecting new equipment or software;
i. organize chapter meetings and programs;
j. serve as editors, authors, and reviewers for our journals;
k. assess nominations for awards and organize the Awards and Honors program;
l. encourage donations toward our Education and Research funds;
m. partner with state radiation control program directors to establish effective and efficient state requirements;
n. document AAPM's history in written and oral (video) form;
o. monitor our investments and expenses and plan our budgets;
p. manage the financial aspects of operating two scientific journals;
q. evaluate membership applications and membership policies;
r. invest in research and discovery science, including data science activities, to prepare our membership to work with emerging technology;
s. organize and operate our Summer Schools and other specialty meetings;
t. audit the books of the organization and assess/manage risk to AAPM;
u. operate the Med Phys match
v. provide educational content for the general public;
w. develop our Ethics Policies and evaluate ethical concerns regarding members;
x. carefully evaluate and comment on economic policy matters, such as CMS rulings;
y. oversee our professional services, including our Placement Service and insurance program;
z. assess workforce needs and operate professional information surveys

There you have it — an "A to Z" list of the many ways that our members make AAPM what it is (my apologies to all the groups that I didn't highlight).

I am sharing these thoughts first to hopefully *encourage members to volunteer and share the work of the organization.* You can make a difference. Check out the committee classified postings, which all group chairs are asked to use. In fact, Science Council just made it mandatory for all group chairs to post open positions in that system.

Secondly, I am sharing these thoughts *for those members who express discontent about the dues that they are asked to pay*. Conducting the work of AAPM simply costs money, whether that work is done by our paid headquarters staff at our AAPM-owned headquarters building, by members who need to travel to do their work for AAPM, or for consultants to represent AAPM in specialty areas (e.g., legal, CMS, lobbying).

Consider AAPM's advocacy work. **Regardless of short-term tangible benefits to any individual member, AAPM has the responsibility to represent our profession and to protect and benefit the medical physics community of the future.** Some examples:

- Preparation of a strong and thoughtful response to the CMS regarding their recent therapy reimbursement proposal (the RO model) resulted in 100s of hours of volunteer effort as well as a great many hours of services from the reimbursement professional that AAPM uses as a consultant. Her fees cost money.
- AAPM's government relations staff member interacted with staff at many sister organizations (e.g., ASTRO) to coordinate our responses. His salary costs money.
- Headquarters' staff organized many GoToMeetings for the hard-working volunteers and were present to keep minutes and record action items, many of which they followed up on. HQ staff, IT services, and other support functions cost money.

CHAIR OF THE BOARD'S REPORT, Cont.

- The HQ staff consists of 32 hardworking talented and committed individuals. They need a place to work, a salary, and benefits. That costs money.
- AAPM contributes to setting national and international standards — standards that directly affect our everyday work, such as DICOM. Without AAPM's presence in these arenas, what is best for patient care, safety, and workflow in the US would be dictated to us by participants from other countries, where health care systems operate very differently. While volunteers donate their own time for these meetings (2 – 4 days of non-stop meetings), their travel expenses to attend these meetings cost money.

The list of ways that AAPM protects and advances health through the profession of medical physics is far too long to list here. My message is that **we need all of us to support the efforts of AAPM through our dues and our volunteer efforts.**

I leave you this analogy to consider:

As parents of school-age children, Niam and Leah are all too familiar with the crowded conditions in the halls and common areas, the large class sizes, the leaking ceilings, the crumbled asphalt on the track, the fraying uniforms, and the decrease in extramural activities due to budget cuts. They volunteer in the schools, they lend a hand with fundraising efforts, and they wholeheartedly support the upcoming referendum to increase local property taxes to build a new school and hire additional teachers. Niam and Leah know how important this funding proposal is to not only their children, but to the future of their entire community. They spread the word and put up lawn signs. The proposal is approved.

Thirty years later, Niam and Leah are empty nesters. They've paid for braces, college tuition, and weddings. They live on a fixed budget and pay high health insurance premiums. They are looking forward to taking those trips they always wanted to, and going somewhere warm in the winter.

However, the school district has again outgrown its available space. Temporary trailer classrooms are brought in to ease the overcrowding, and the district is again asking voters to approve a new levy to fund a new high school, one that is equipped with the latest technology to help students thrive in a digital world. This includes laptops for all students. Lawn signs go up and neighbors are campaigning for their yes vote.

This time, Niam and Leah personally don't need the local schools anymore. They are at a phase of life where there is no direct benefit to them to give students laptops or modern classrooms. They don't have grandchildren in the area, and so they see no reason to pay additional taxes for services that don't directly benefit from. And so they vote no, as do the majority of retirees in town, and the proposal fails.

Please consider these questions.

- Did Niam and Leah have an ethical obligation to support the good of the entire community, even though they derive no direct benefit from the school system?
- How will the lack of funding impact the future of their community?

I believe that the answers are clear.

So please support AAPM with your dues and tax-deductible contributions. The work of AAPM directly advances and protects **your** profession, both for today and for the future!

In closing, it's been an honor to serve our organization as an officer for the past 3+ years. It's been a labor of love. A ton of work (!!), but for a very worthy cause. I have loved medical physics since I saw my first medical image — a PET image of a patient with Parkinson's disease — and I love it still today. I believe in this discipline and in our community, and as a sci-fi fan, my wish is for both to "live long and prosper." ■

INFORMATION FROM HQ

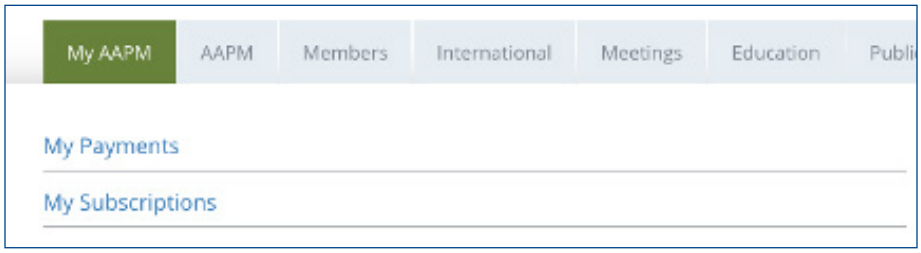
EXECUTIVE DIRECTOR'S REPORT Angela R. Keyser | AAPM

Interested in Volunteering?

AAPM relies heavily on the volunteer efforts of its members to accomplish its scientific, educational, and professional missions. Without AAPM members who are willing to devote time and energy to the advancement of medical physics, AAPM would not achieve its goals. If you are interested in volunteering, please review the Committee Classifieds online to see what positions are available.

Did You Know...?

- You can print receipts and review your subscriptions online under the "My AAPM" tab.



- The 2019 Education and Research Fund Annual Report is available online.
- An essential service provided by the American Institute of Physics (AIP) is the *FYI* science policy bulletins focusing on the physical sciences. The sign-up is free, and it is an easy way to stay on top of what is happening within the administration and Congress. Subscribe here.
- There are 47,000+ images on AAPM's Flickr site, where you will find pictures grouped by event. AAPM's history has been well documented through the photographic efforts of many members. Take some time to stroll down memory lane!
- There are two new AAPM reports available:
  - o Practical Application of AAPM Report 270 in Display Quality Assurance: A Report of Task Group 270
  - o Dose-rate considerations for the INTRABEAM electronic brachytherapy system: Report from AAPM Task Group 292

Remember that AAPM includes "AAPM Reports Authored" in the AAPM Membership Directory listing of each AAPM Member. Ever want to find an AAPM Report, don't remember all the details, but remember the name of one of the authors? Log in and check it out!

Twitter: @AngelaKeyser

Email: akeyser@aapm.org

I firmly believe that part of the success of AAPM HQ operations is our ability to attract and retain an excellent team of high performing association management professionals. The years of service documented below is very telling; the AAPM HQ team is very committed to serving the AAPM membership. The following AAPM team members have celebrated an AAPM anniversary in the last half of 2020. I want to thank them and acknowledge their efforts publicly.

Lisa Rose Sullivan	**27 years of service**
Michael Woodward	**24 years of service**
Farhana Khan	**22 years of service**
Yan-Hong Xing	**14 years of service**
Tammy Conquest	**13 years of service**
Corbi Foster	**13 years of service**
Jackie Ogburn	**13 years of service**
Abby Pardes	**7 years of service**
Rohan Tapiyawala	**5 years of service**
Nick Wingreen	**5 years of service**
Janelle Priestly	**3 years of service**
Julia Colque	**1 year of service**
Jordan Kehrt	**1 year of service**
Justin Stewart	**1 year of service**

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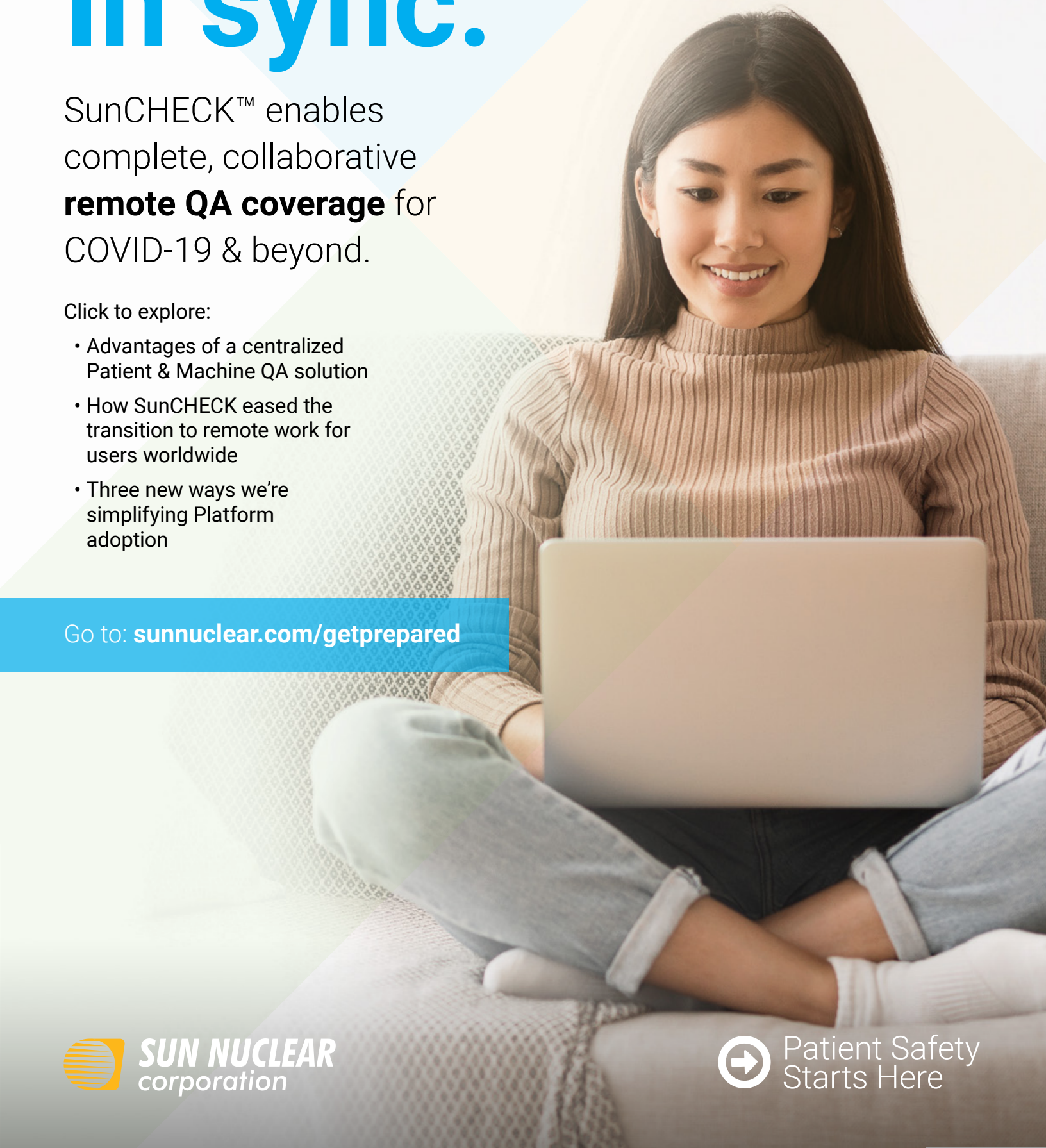

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EXECUTIVE DIRECTOR'S REPORT, Cont.

Your Online Member Profile

This is a reminder to keep your AAPM Membership Profile information up to date by going to your profile page and making any changes necessary. **Please, upload your picture** if you have not already done so.

Remember to review the "Conflict of Interest" area of the Member Profile to self-report conflicts per the AAPM Conflict of Interest Policy.

Staff News

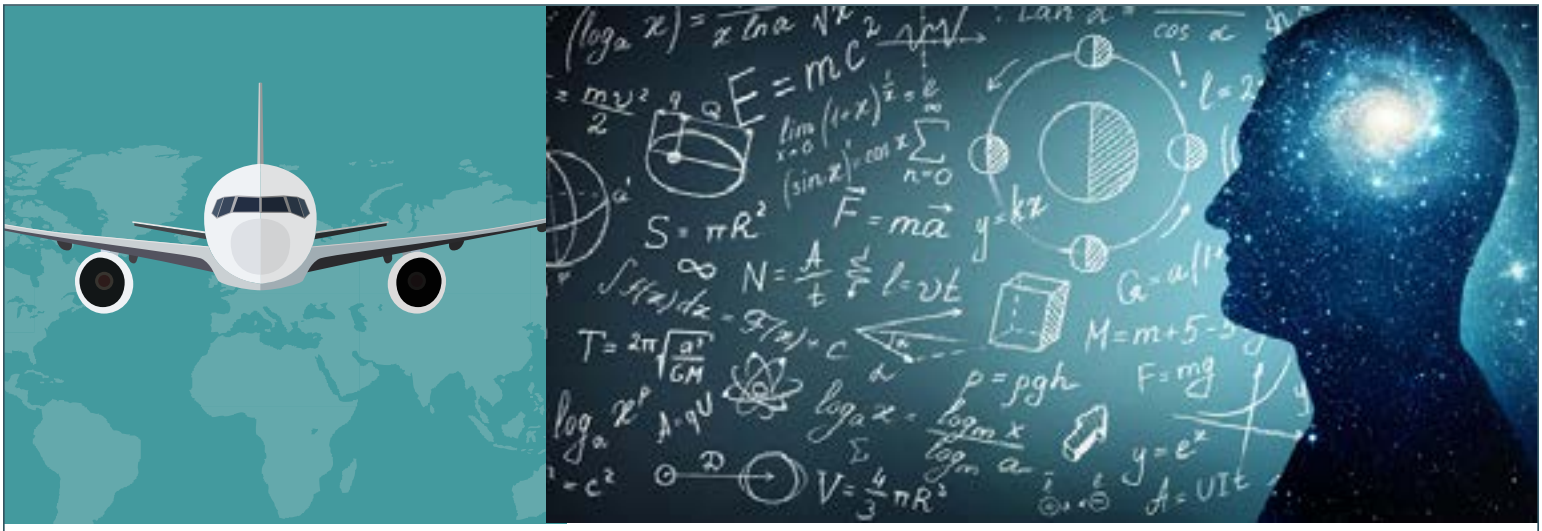
It has been a busy few months with recruitment in this "social distancing" world, with the team continuing to work remotely. **Shana Donchatz** joined the HQ team on July 1 as the Programs Manager in support of Science Council activities. We then welcomed **Emily Townley** on August 24 in a new position created to support AAPM's activities with the Medical Imaging and Data Resource Center (MIDRC). **Elle Thomas** came on board on October 12 as the Managing Editor for *Medical Physics*. We are working to welcome and onboard our new HQ team members in this remote working situation.

Congratulations to AAPM's Meetings and Programs Coordinator **Jordan Kehrt** on attaining the "Virtual Event and Meeting Management" certification offered by the Event Leadership Institute. To earn the credential, Jordan demonstrated "proficiency in the fundamental knowledge needed to plan and execute virtual events, articulating the key differences between planning a live event and virtual event, and how to develop a virtual event strategy that includes key components unique to planning virtual events." Jordan joined the AAPM HQ team in December 2019 and has truly risen to the new and complex challenges impacting meetings. I am confident that AAPM will put these additional skills to good use. Just call him "Jordan Kehrt, VEMM."

I am pleased to announce the marriage of **Erin Shamleffer**, AAPM's Office Services Assistant, to Mark Cox on October 9. In this world of uncertainty regarding events, I find it encouraging to know that people are able to find a way to celebrate such wonderful occasions. We wish Mr. and Mrs. Cox many years of wedded bliss!

Who does what on the AAPM HQ Team? See a list of contact information and brief descriptions of responsibilities online. An Organization Chart is also provided.

The AAPM HQ will be closed Thursday, November 26 – Friday, November 27 for the Thanksgiving holiday. We will also be closed beginning on Thursday, December 24, and reopen on Monday, January 4. As this challenging year comes to a close, I hope that each of you will make time for what rejuvenates your spirit and brings you much joy. Happy holidays and here's to the opportunities that 2021 will bring. ■



Congratulations to the 2020 AAPM

EXPANDING HORIZONS TRAVEL GRANT AWARD WINNERS

2020 EXPANDING HORIZONS WINNERS ROUND 2

Dr. Abdullah-Al-Zubaer Imran
Attending: 25th International Conference on Pattern Recognition

Peter R. Jermain
Attending: American Association of Cancer Research Annual Meeting 2021

Cassandra Miller
Attending: Women in Physics Canada Conference

AMERICAN ASSOCIATION *of* PHYSICISTS IN MEDICINE

APPLY AT: gaf.aapm.org/#EXHG | DIRECT INQUIRIES: exhg@aapm.org

SPECIAL INTEREST FEATURE: A Year in Review — A Summary of Education Council's 2020 Activities in light of COVID-19

EDUCATION COUNCIL REPORT #1 Julianne Pollard-Larkin, PhD, MD Anderson Cancer Center Diversity and Inclusion Subcommittee Chair

Twitter: @JulieLarkin305

Email: jmpollard@mdanderson.org

The year 2020 will be a year to remember. The COVID-19 pandemic, travel restrictions, and social distancing have altered how we interact socially and professionally. However, as Albert Einstein once said, "in the middle of difficulty lies opportunity." Committees within Education Council have been hard at work in response to some of these challenges. In this special interest section featuring the Education Council report, a summary of their accomplishments is presented. Through their hard work and dedication, they have strived to make a difference for educators, students, trainees, residents, and even the public. As the year draws to a close, and I consider all the things for which I am grateful, I certainly consider myself blessed to work with the many committee and council members within Education Council, and the wonderful members of the AAPM staff. I wish you and your loved ones a happy and healthy holiday season.

—Joann Prisciandaro, PhD, Professor, University of Michigan/Michigan Medicine, Education Council Chair

The 2020 Diversity through Recruitment, Education and Mentoring (DREAM) Summer Research Fellowship Program

The 2020 Diversity through Recruitment, Education and Mentoring (DREAM) summer research fellowship program was a success. This year we accepted a group of 5 young scholars from underrepresented backgrounds and introduced them to Medical Physics research. Our summer fellowship program enforces engagement at every level for both the mentors and mentees. Our goal is to encourage and introduce underrepresented students at an early stage in their undergraduate studies (as early as sophomore year) to the field of medical physics, provide them with the basic research skills to easily transition into a graduate medical physics research program, and be highly competitive in the medical physics graduate application process.

Due to the pandemic, we were able to host even more virtual group calls and provide mentorship, advice, and request feedback from all participants. Our mentorship talks covered topics such as "What I wish I knew before I applied to Grad School in Medical Physics," "How to make the most of the Virtual Annual AAPM Meeting," and "How to Pick the Right Mentor." We even discussed important issues such as the imposter syndrome, dealing with adversity, and how to be self-motivated during the fellowship and graduate application process.

Each mentor worked with their mentee weekly, if not more frequently, using virtual meeting platforms to discuss the goals of their project and provide guidance throughout the summer fellowship period. In addition to the virtual mentor meetings, the mentors were encouraged to invite their mentee to participate in their lab's meetings, departmental research grand rounds, clinical chart rounds, and other talks the students would have participated in had they been on campus. This provided the students with a relatively full experience, given the circumstances. The DREAM program and Diversity and Inclusion Subcommittee is grateful for the thoughtfulness, time, commitment and zeal expressed by our mentees, mentors, and all of the wonderful AAPM staff that helped to make this program a true "dream." The AAPM staff, such as **Jackie Ogburn**, are the true secrets to our success and provide the constant support needed to nurture such an important fellowship program.

The biggest highlight of our extended time getting to know each student and learning from their feedback was when we asked each to give their final presentations to the group. Several of the projects were focused on artificial intelligence analytical techniques since these projects were easiest to do remotely. Seeing the projects and hearing the newly developed confidence in the students was a great way to wrap up this year's fellowship. We also used the final meeting as

a graduation of sorts, replete with signed certificates of completion. We enjoyed our experience and the students preliminary and final surveys showed that they enjoyed the experience as well. Finally, the nicest note came from one of the mentors who listened to our call covering impostor syndrome. They stated that they felt motivated and empowered, and wished they had the same lesson as a student. Our program was able to be transformative amidst the trials of COVID-19, and we look forward to incorporating more group chats during the academic year to encourage our students to pursue advanced studies in medical physics. ■

SPECIAL INTEREST FEATURE: A Year in Review — A Summary of Education Council's 2020 Activities in light of COVID-19

EDUCATION COUNCIL REPORT #2 Parminder Basran, PhD | Cornell University
Undergraduate Summer Fellowship and Outreach Subcommittee Chair

Twitter: @psbasran

Email: psb92@cornell.edu

Undergraduate Summer Fellowship

At the end of February 2020, the Undergraduate Summer Fellowship and Outreach subcommittee (SFP) completed the rigorous and contested selection process for identifying 16 outstanding undergraduate students for the opportunity to partake in a summer research fellowship experience with an AAPM mentor. Applications were reviewed, and the process for matching students with prospective AAPM mentors was underway. Thereafter, the COVID pandemic struck, grinding all activities to a halt, and our communities began to appreciate the breadth and scope of the pandemic and their influence on AAPM activities.

Choosing between the easy path of cancelling SFP fellowships for 2020 and the more difficult one of salvaging it in some way was not easy given the circumstances of mid-March. In the end, a decision was made to convert all fellowships into virtual ones. This required extraordinary efforts for the AAPM staff, prospective fellows and mentors, and the SFP subcommittee. Surveys were sent to mentors and prospective fellows on their capacity to transition from a face-to-face to a virtual fellowship experience. While several prospective AAPM mentors were unable to provide a virtual SFP experience, all 16 fellows were 'on board' with pursuing a virtual option. In the end, all fellows were matched with a mentor, and some mentors were able to accommodate more than one fellow.

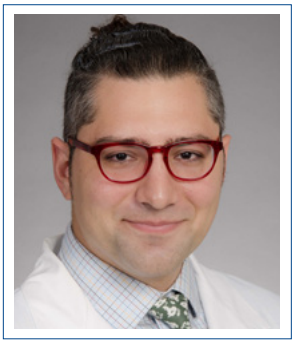
The differences in a virtual versus non-virtual experience might seem obvious, but the efficacy of a virtual experience compared to a non-virtual one might not. Thus, questionnaires were created and distributed to fellows at the completion of their fellowships, kudos to **Dr. Harry Bushe** (co-chair of the SFP). Based on responses, all students had a firm understanding of the project goals, understood precisely how they would be enumerated, had the necessary provisions to complete their virtual fellowship, and were able to participate in local departmental activities. There was a strong indication from the fellows of the value of connecting with their peers. In the end, the virtualization of the SFP fellowships for 2020 was a success.

Another challenge the SFP faced was fulfilling the 'outreach' mandate of the committee. The SFP typically coordinates undergraduate activities for the spring clinical and summer meetings, where local students are offered opportunities to attend the conference and connect with AAPM members and leaders. Virtualizing the AAPM Annual Meeting provided additional challenges with undergraduate outreach. **Drs. Jessica Fagerstrom**, **Lori Young**, and **Christopher Peeler** with assistance from **Dr. Ara Alexadrian** provided a video conference session on "Crushing the #AAPMCOMP2020" to prepare fellows on what to expect at the conference and tips on networking. The feedback from fellows and mentors was positive.

In the end, the pandemic forced a significant operational pivot for the SFP. Some of these new ideas may become permanent, such as virtual studentships and virtual orientations. We cannot stress how supportive the Education Council, the Education and Training of Medical Physicists Committee, the AAPM headquarters staff, and our AAPM mentors were in adapting to these challenges. I want to express my deepest thanks to them and our small army of volunteers for finding ways to support promising undergraduates into a career in medical physics amidst a pandemic. ■

SPECIAL INTEREST FEATURE: A Year in Review — A Summary of Education Council's 2020 Activities in light of COVID-19

EDUCATION COUNCIL REPORT #3 Ara Alexandrian, PhD
University of Alabama at Birmingham | Students and Trainees Subcommittee Chair

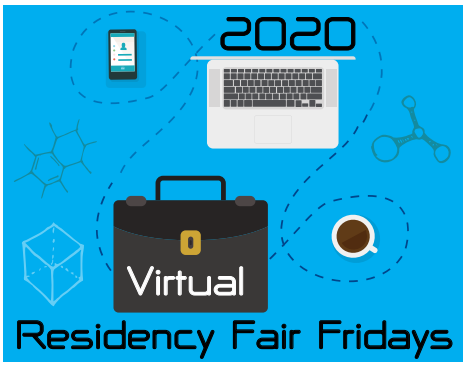


Email: ara.n.alexandrian@gmail.com

Virtual Residency Fair Fridays

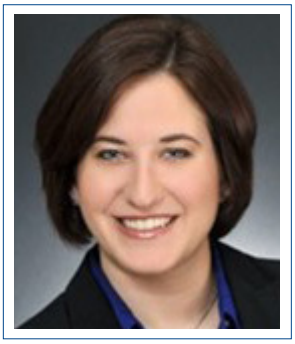
The AAPM Students and Trainees subcommittee hosted a virtual residency fair this year — *Virtual Residency Fair Fridays*. During the month of September, residency programs registered for time slots on one or more Fridays, and hosted casual meet-and-greets. Residency program directors prepared presentations, showed informational videos, and opened the floor for discussions with faculty and current residents. Program directors reported greater attendance during this virtual fair compared to the physical event traditionally held during the Annual AAPM meeting. Overall, the virtual residency fair had the participation of 22 imaging and 62 therapy residency programs, with sessions averaging approximately 90 minutes in length. A total of 292 students and prospective applicants registered for the event, yielding an average attendance per session of approximately 6 and 12 students for imaging and therapy programs, respectively.

The virtual event proved to be more accessible to students by lifting the requirement of physical attendance during the annual meeting, which can be prohibitive due to lack of travel funding. Overall, the unprecedented circumstances of 2020 showed us we can successfully adapt and learn new ways to continue to achieve our goals and advance the field of medical physics. We would like to thank the members of the Education and Training Committee, and the Medical Physics Residency Training and Promotion Subcommittee, as well as AAPM headquarters staff for their assistance in initiating the Virtual Residency fair. If you'd like to see the virtual fair and/or the in-person fair continue in the future, please let us know by emailing the Residency Fair Organizer, **Daniela Branco**, at dbranco@health.ucsd.edu! ■



SPECIAL INTEREST FEATURE: A Year in Review — A Summary of Education Council's 2020 Activities in light of COVID-19

EDUCATION COUNCIL REPORT #4 Lisa Genovese, DMP
Krueger-Gilbert Health Physics | Public Education Member



Email: lisag.dmp@gmail.com

Public Outreach in the Time of COVID-19

Many things are better done in person: hugs, outings with friends, concerts, and of course public outreach events. As COVID-19 started to unfold and the world went into quarantine, the Public Education Committee was already in the midst of a collaboration with the American Institute of Physics (AIP) and other professional organizations to host a booth at the USA Science & Engineering Festival (USASEF) in April 2020. The USASEF is a festival held in Washington, DC every two years celebrating science, technology, engineering, and math (STEM) and inspiring young minds, and in 2018 attendance was estimated at 370,000.

Given the group's geographic diversity, the representatives from the organizations partnering with AIP were already meeting virtually to discuss the booth's theme, design, giveaways, and logistics. However, soon the talks turned to social distancing, hand sanitizing stations, and how to modify activities at the booth as the pandemic spread. On March 11, USASEF's Executive Director released an announcement that the April festival would be postponed until further notice, and our planning was suspended.

On May 27, USASEF announced that they would be taking the festival virtual and it would be free to the public. After putting our planning activities on hold it was exciting to get back to business, though going virtual meant a complete change in how we would interact with the public. AIP asked us for virtual activity ideas such as printable coloring/activity pages, videos, games, and other activities the public could do at home.

Luckily, AAPM was able to offer several options. The virtual USA Science & Engineering Festival was active and free to the public from September 26–October 3. Though agility was required on the part of the exhibitors and there were a few hiccups along the way, we were able to meaningfully interact with the public and hopefully make a lasting impression on young minds.

Thank you to **Jessica Fagerstrom**, **Julianne Pollard-Larkin**, **Courtney Buckey**, as well as **Farhana Khan** at AAPM, **Wendy Beatty** at AIP, **Keeta Jones** from the Acoustical Society of America, and the other partnering organizations for all their efforts to make the virtual booth a success. ■

SPECIAL INTEREST FEATURE: A Year in Review — A Summary of Education Council's 2020 Activities in light of COVID-19

EDUCATION COUNCIL REPORT #5

Hania Al-Hallaq, PhD | The University of Chicago
Medical Physics Residency Training and Promotion Subcommittee Chair &
Education and Training of Medical Physicists Committee Vice-Chair

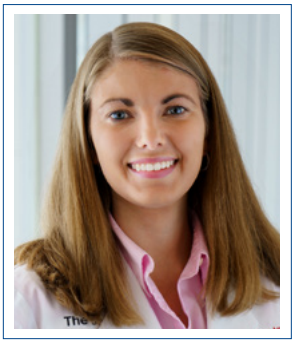
Email: hal-hallaq@radonc.uchicago.edu

Finding a Happy Medium Between Didactic Instruction and Self-Directed Learning

During the Annual Meeting, the Medical Physics Residency Training and Promotion (MPRTP) subcommittee led a session titled "Professionalism and Soft Skills in Residency: Finding a Happy Medium Between Didactic Instruction and Self-Directed Learning." The speakers consisted of five members of the MPRTP, **Hania Al-Hallaq**, **Anna Rodrigues**, **Irina Vergalasova**, **Laura Padilla**, and **Derek Brown**. The goal of the session was to present information on how professionalism is taught in other fields and how it can be taught, in formal ways, to medical physics students, trainees, and residents. The session also presented the best ways for adult learners to learn and was wrapped up with Derek Brown discussing the benefits of experiences like away rotations as a means for residents to learn and practice soft skills like professionalism. The session was well received and the virtual chat was very active. The session was then followed by another given by residency program directors presenting on how they created curricula to teach soft skills. ■

EDUCATION COUNCIL REPORT #6

Ashley Cetnar, MS
The Ohio State University | Teaching and Mentoring Workshops Subcommittee Chair



Twitter: @isoCetnar

Email: Ashley.Cetnar@osumc.edu

Teaching and Learning in a Virtual Environment

The Teaching and Mentoring Workshops subcommittee was formalized in August of 2020, and is actively engaged in developing requests for proposals for sessions highlighting teaching and learning in a virtual environment for the 2021 spring clinical and annual meetings. The pandemic has created challenges to traditional teaching and learning. Since much of education has moved to physically distanced or virtual formats, educators have faced new challenges adapting to ever-changing requirements and recommendations. These proposed sessions would aim to provide a background in teaching and learning for educators and strategies for best teaching practices for graduate students and residents in a virtual environment. ■

ACR ACCREDITATION & MORE: UPDATES FOR MEDICAL PHYSICISTS

ACR UPDATES Dustin A. Gress, MS, Senior Advisor for Medical Physics | ACR Quality and Safety

Recent Changes to Accreditation Programs (from ACR's Quality and Safety eNews)

The ACR® Accreditation programs are constantly evolving to help you keep up with the latest quality and safety guidelines and deliver the best care possible. Here are several recent accreditation program updates of note:

• **Virtual Site Visits:** In response to the COVID-19 crisis, Radiation Oncology accreditation and the Diagnostic Imaging Center of Excellence program are now performing virtual site visits to ensure continuous operation of these important programs to our facilities.

- **MR Accreditation Updates:** The MR accreditation team has updated guidance on staffing and safe practices in the General Personnel Requirements: Supervising Physicians article. The guidance indicates that in addition to being in compliance with all modality-specific requirements for interpreting physicians, the supervising physician is also responsible for the development, implementation and enforcement of policies and procedures regarding the compliance with the ACR Manual on MR Safety (previously known as the ACR Guidance Document on MR Safe Practices: 2013).

  Questions about MR staffing levels and MR accreditation prompted an update to the article to note: Staffing is not directly evaluated during the ACR MR Accreditation review. However, if there is a question of inadequate staffing or safe practices of an ACR-accredited facility, the ACR reserves the right to request a response from the facility to ensure appropriate safety procedures are being followed and performed at that facility.
- **Ultrasound Accreditation:** Female Pelvis Exam: A recent update to the ACR Ultrasound Accreditation Program requirements for the female pelvis exam includes clarification that complete documentation of the ovaries must include at least two longitudinal and at least two transverse gray scale images of each ovary. Access this article about Exam Requirements: Gynecological Ultrasound for more information.
- **New Accreditation Process Flowcharts:** Convenient accreditation process flowcharts are now available for ROPA and the other programs for new and renewing facilities. Printable checklists for each step of the accreditation process are also available on each program landing page, for example, this checklist for the CTAP.

Twitter: @DustinGress

Email: dgress@acr.org

In each issue of this Newsletter, I'll present frequently asked questions (FAQs) or other information of particular importance for medical physicists. You may also check out the ACR's accreditation web site portal **for more FAQs, accreditation application information, and QC forms.**

The DIR Fluoroscopy Module is now available for enrollment and data submission. You can read about the features of the new interactive fluoroscopy standardized DIR reports in the Knowledge Base**. Updated weekly, the reports provide an overview of your systems' performance and allow you to delve into the details.**

If your site already has a National Radiology Data Registry (NRDR®) account, but not DIR, you only need to complete an addendum to your existing agreement to participate in the DIR. No additional registration or fees are required for a facility currently participating in the CT DIR. New sites wishing to participate should complete the application process **and create corporate and facility accounts in the NRDR.**

More tips on getting started with DIR Fluoroscopy Module here.

ACR Sends Letter to CMS on RO Model (from ACR's Advocacy in Action eNews)

On Oct 1, the American College of Radiology (ACR) sent a letter to the Centers for Medicare and Medicaid Services (CMS) urging the agency to delay the implementation date of the Radiation Oncology (RO) Model and to reduce the excessive payment cuts to mandatory participants. The RO Model final rule, released Sept. 18, determined that the model will begin on Jan. 1, 2021. The ACR has asked CMS to delay the start date until at least July 1, 2021, due to the ongoing impacts of the COVID-19 pandemic. In July 2020, the ACR sent a letter to CMS recommending that the agency allow providers at least six months between publication of the final rule and its implementation date. The ACR is concerned that CMS has given mandatory participants three and a half months to prepare in the midst of a public health emergency (PHE).

The ACR is disappointed that the agency did not consider any of the other recommendations made in the July 2020 letter to CMS in response to the PHE. Mandatory participation representing 30% of eligible episodes, although an improvement from the proposed 40%, goes too far for an untested model. The ACR is alarmed that such a significant number of small and rural practices are included in the model, while many large metropolitan areas have been spared, and are expected to use their limited resources to adopt and implement certified EHR technology, among all of the other reporting requirements for participation.

The ACR also signed on to a stakeholder letter led by the American Society for Radiation Oncology (ASTRO) that was sent to CMS on Oct. 2. In the letter, the ACR, ASTRO, the American Medical Association and other stakeholders urge CMS to reverse course and delay implementation of the model to Jan.1, 2022, or — at the earliest — July 1, 2021, and to reduce the discount factors to 3%. The letter emphasizes to CMS that radiation oncology group practices and hospital outpatient departments have faced severe challenges due to the COVID-19 pandemic, including reduced patient volumes and increased supply costs. Therefore, a mandated model that distracts from patient care and increases worries of financial strain with the payment cuts is impractical, especially now.

New search tool for ACR Practice Parameters and Technical Standards

The ACR Guidance and web teams recently updated the landing page for accessing Practice Parameters and Technical Standards. The new landing page includes filtered searching by modality, organ, collaborative society, and more. I hope you like the new search tool as much as I do! ■

OUR CONDOLENCES

Allen Brodsky, ScD

Matthew J. Kowalski, PhD

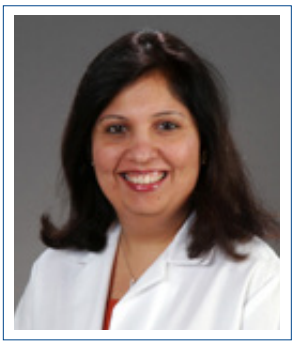
Rafail P. Yankelevich, PhD

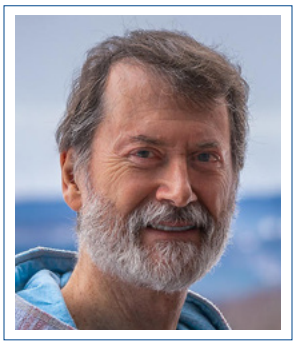
Our deepest sympathies go out to the family. We will all feel the loss in the Medical Physics community.

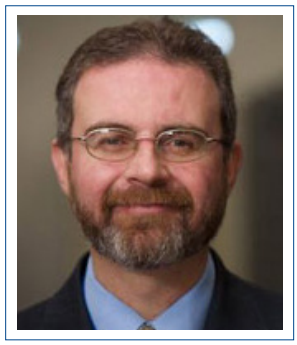
If you have information on the passing of members, please inform HQ ASAP so that these members can be remembered appropriately. We respectfully request the notification via e-mail to: 2020.aapm@aapm.org
(Please include supporting information so that we can take appropriate steps.)

DON FREY RETIRES FROM THE ABR

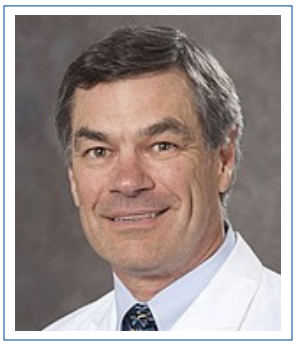
ABR NEWS Kalpana M. Kanal, PhD, University of Washington | ABR Trustee
Geoffrey Ibbott, PhD, ABR | Associate Executive Director
Matthew B. Podgorsak, PhD, Roswell Park Cancer Institute | ABR Trustee
Robert A. Pooley, PhD, Mayo Clinic | ABR Trustee
J. Anthony Seibert, PhD, UC Davis Medical Center | ABR Governor


K. Kanal


G. Ibbott


M. Podgorsak


R. Pooley


J. Seibert

After almost 25 years of service to the ABR, Don Frey, PhD, has retired effective the end of July 2020. The ABR has a long history of exceptional service provided by distinguished AAPM members. Dr. Frey is no exception. Throughout his career, Dr. Frey has been a well-known and well-respected medical physicist who contributed at a high level not only to the mission of the ABR but the broader field of medical physics. Dr. Frey's service to the ABR began in 1996 when he was appointed to a writing committee, and he first served as an oral examiner. This was followed by two terms as Diagnostic Medical Physics Trustee (from 2006 to 2011), Assistant Executive Director for MOC (2007 to 2011), and, most recently, Associate Executive Director for Medical Physics (since 2012).

Dr. Frey was born in Lackawanna, NY, a suburb of Buffalo, where he lived his early years and attended various schools, ultimately graduating from Canisius College with a Bachelor's degree in physics. From 1965 to 1970, Dr. Frey worked on his PhD in nuclear physics at the University of South Carolina in Columbia. Upon graduation, one of his PhD mentors suggested that he reach out to the Medical University of South Carolina (MUSC) to see if they needed another physicist. Dr. Frey was hired, and after some on-the-job training he found that he liked medical physics and decided to dedicate his career to this profession. In 1977 he completed his ABR certification in Radiological

Twitter:
@KalpanaKanal
@ibbottibbott
@rapooley

Email:
kkanal@u.washington.edu
gibbott@theabr.org
Matthew.Podgorsak@RoswellPark.org
pooley.robert@mayo.edu
jaseibert@ucdavis.edu


D. Frey

Physics, a type of certification no longer offered that incorporated content from all 3 of the current medical physics disciplines.

Dr. Frey is one of the few medical physicists who spent their entire career at the same facility. He held a faculty appointment at MUSC starting in 1971, working his way from Assistant Professor to Full Professor by 1997, and then to Professor Emeritus upon his retirement in 2014. He was appointed Director of Diagnostic Radiology Physics in 1987, mentoring and leading many junior physicists along the way. A small sample of his many notable career accomplishments includes the study of early applications of mammography, implementation of computed radiography (CR) for mammography, and one of the first full PACS deployments within a radiology department in 1996. Don has numerous peer-reviewed publications and invited presentations, and he is the author of textbooks and research monographs on nuclear medicine technology and diagnostic radiology physics. He continues to speak on behalf of the ABR at many annual professional meetings, most recently during last year's AAPM meeting in San Antonio.

During his career, Dr. Frey contributed significant volunteer effort to the profession of medical physics, and he achieved many honors. He holds Fellowships in AAPM, ACR, and IOMP. Dr. Frey served as President of AAPM and CAMPEP, and he was elected 3rd Vice President of the RSNA. He served on numerous committees, often providing the necessary leadership to move our profession forward.

Dr. Frey's career work was acknowledged by his medical physicist peers when he was awarded the Edith Quimby Lifetime Achievement Award in 2017. This award honors those AAPM members who have made notable contributions to the profession of medical physics during their careers.

It is not often that one has an opportunity to interact with and learn from an eminent professional. It is even less often that such a mentor is also a true gentleman. Those of us who have worked with Dr. Frey have been privileged to learn from a consummate medical physicist who loves his profession immensely, is very generous with his time, is incredibly patient with his explanations, and strives to always provide the best example to his colleagues. Dr. Frey's camaraderie will be missed by his ABR colleagues, and we hope that our friendships will continue well into the future.

We wish Dr. Frey all the best in retirement as he looks forward to cultivating existing and new hobbies with his wife of 54 years, Pat. ■

ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant

AAPM and the American Society of Radiation Oncology (ASTRO) are happy to announce a jointly funded research seed grant for Medical Physics Residents and Post-Doctoral Fellows. The goal of the joint seed grant 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. One grant of up to $25,000 will be awarded. The 2021 award cycle will begin July 1, 2021 and end June 20, 2022.

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

Eligibility Criteria:

- 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.

Application Instructions: Applications for the ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant must be received by February 26th, 2021 at 11:59 PM Eastern time. **All applications must be submitted through ASTRO's** ProposalCentral.

Click here for more information on details about this grant opportunity.

Application Deadline: February 26, 2021

Program Contact: Shana Donchatz

CMS FINALIZES RADIATION ONCOLOGY ALTERNATIVE PAYMENT MODEL FOR 2021

HEALTH POLICY AND ECONOMIC ISSUES REPORT

Wendy Smith Fuss, AAPM Consultant | MPH-Health Policy Solutions

The Centers for Medicare and Medicaid Services (CMS) and the Center for Medicare and Medicaid Innovation published the Radiation Oncology (RO) Alternative Payment Model final rule. The intent of the RO Model is to promote quality and financial accountability for episodes of care involving radiation therapy (RT) services. The RO Model would test whether prospective episode-based payments to physician group practices, hospital outpatient departments, and freestanding radiation therapy centers for radiotherapy episodes of care would reduce Medicare expenditures while preserving or enhancing the quality of care for Medicare beneficiaries.

The five-year model is currently scheduled to begin on January 1, 2021 and end December 31, 2025. AAPM, ASTRO and other stakeholders are requesting a delay until January 1, 2022 or July 1, 2021, at the earliest. CMS estimates savings of $230 million to the Medicare program over a 5-year period. CMS reports that average payments to physicians and freestanding radiation therapy centers will decrease 6.0 percent and 4.7 percent for hospital outpatient departments.

Participation:

The RO Model requires mandatory participation from providers and suppliers that furnish RT services within randomly selected Core-Based Statistical Areas (CBSAs). In the final rule, CMS modifies the Model size from 40 percent to 30 percent of all eligible RT episodes of care. CMS estimates that 500 physicians and freestanding radiation therapy centers and 450 hospital outpatient departments are required to participate. Required participants are identified by zip code. To see if your practice in required to participate in the RO Model download this spreadsheet.

In the final rule, CMS provides an annual low volume opt-out for any physician group practice, freestanding radiation therapy center, or hospital outpatient department that furnishes fewer than 20 episodes in one or more of the CBSAs randomly selected for participation in the most recent year with claims data available. There are no hardship exemptions.

RO Model participants treating beneficiaries with one of the 16 included cancer types receive prospective, episode-based (i.e. bundled) payment amounts for RT services furnished during a 90-day episode of care, instead of regular Medicare fee-for-service (FFS) payments throughout the model performance period.

Email: wendy@healthpolicysolutions.net

HEALTH POLICY AND ECONOMIC ISSUES REPORT, Cont.

Episode payments in the RO Model are split into a professional component (PC) payment, which is meant to cover payment for the included RT services that may only be furnished by a physician, and the technical component (TC) payment, which is meant to cover payment for the included RT services by the freestanding radiation therapy center or hospital outpatient facility, including the provision of equipment, supplies, personnel, and costs related to RT services. This division reflects the fact that RT professional and technical services are sometimes furnished by separate providers or suppliers and paid through different payment systems (i.e, Medicare Physician Fee Schedule and Hospital Outpatient Prospective Payment System).

A RO participant would be a physician group practice (PGP), freestanding radiation therapy center, or hospital outpatient department (HOPD). For example, a participating HOPD would have at least one PGP to furnish RT services at the HOPD. A PGP would furnish the PC as a "Professional participant" and a HOPD would furnish the TC as a "Technical participant." Both would be participants in the RO Model, furnishing separate components of the same episode. A participant may also elect to furnish both the PC and TC as a "Dual participant" through one entity, such as a freestanding radiation therapy center.

CMS excludes certain providers and suppliers from participation under the RO Model, including services furnished in an Ambulatory Surgical Center (ASC), Critical Access Hospital (CAH), or the 11-designated Prospective Payment System-Exempt Cancer Hospitals. RT services furnished in Maryland, Vermont, the US Territories and participants in the Pennsylvania Rural Health Model are also exempt from the RO Model.

Included Cancer Types, Radiation Therapy Modalities and Services:

The RO Model takes significant steps towards making prospective episode-based payments in a site-neutral manner for 16 different cancer types (anal, bladder, bone metastases, brain metastases, breast, cervical, CNS tumors, colorectal, head and neck, liver, lung, lymphoma, pancreatic, prostate, upper GI and uterine). CMS chose to exclude skin cancer, benign neoplasms and cancers that are rarely treated with radiation (e.g. kidney cancer).

CMS includes the following RT modalities: various types of external beam radiation therapy, including 3-dimensional conformal radiotherapy (3DCRT), intensity modulated radiotherapy (IMRT), stereotactic radiosurgery (SRS), stereotactic body radiotherapy (SBRT), proton beam therapy (PBT); image-guided radiation therapy (IGRT); and brachytherapy.

The RO Model includes most RT services furnished in HOPDs and freestanding radiation therapy centers. Services furnished within an episode of RT usually follow a standard, clearly defined process of care and generally include a treatment consultation, treatment planning, technical preparation and special services (simulation), treatment delivery, and treatment management.

In addition, CMS includes brachytherapy radioactive elements (i.e., radioisotopes or seeds) and 4 brachytherapy-related surgical procedures (i.e., CPT 55920 placement of pelvic needles/catheters; CPT 57155 placement of tandem & ovoids; CPT 57156 placement of vaginal cylinder; and CPT 58346 placement of Heyman capsules) in the bundled payment.

CMS excludes evaluation and management (E/M) services (i.e., office or outpatient clinic visits) as part of the episode payment. RO participants would continue to bill E/M services under Medicare FFS.

CMS excludes several low volume RT services from the Model. These include certain surgical procedures related to brachytherapy catheter/applicator insertion, neutron beam therapy, hyperthermia treatment, intrafraction guidance, electronic brachytherapy and radiopharmaceuticals (i.e. Ytrrium-90 source). In the final rule, CMS also excludes intraoperative radiotherapy (IORT).

Episode Triggers and Payment:

The RO Model tests the cost-saving potential of prospective episode payments for certain RT services furnished during a 90-day episode, and also tests whether episode payments lead to shorter courses of RT (that is, fewer doses, also known as fractions), more efficient care delivery, and higher value care for Medicare beneficiaries.

HEALTH POLICY AND ECONOMIC ISSUES REPORT, Cont.

Day 1 of the episode is triggered by the date of service that a Professional participant or Dual participant furnishes the initial treatment planning service (i.e. CPT 77261-77263), provided that a Technical participant or Dual participant furnishes an RT delivery service within 28 days of the treatment planning service. If, however, a Technical participant or Dual participant does not furnish the TC to a Medicare beneficiary within the 28-day period, then no episode will have occurred and any payment would be made to the RO participant in accordance with the "incomplete episode" policy. RO participants will be required to bill a new model-specific HCPCS code and a modifier indicating the start of an episode and the end of an episode for both PC and TC services. Each cancer type will have a model-specific codes that CMS will provide prior to RO Model implementation.

CMS establishes a "clean period" for 28 days after the end of the previous episode. Medically necessary services are separately billed and paid FFS during the clean period.

CMS pays for complete episodes in two installments: one tied to the start of episode (i.e. SOE), and another tied to the end of episode (i.e. EOE). Under this policy a Professional participant would receive two installment payments for furnishing the PC of an episode, a Technical participant would receive two installment payments for furnishing the TC of an episode, and a Dual participant would receive two installment payments for furnishing the PC and TC of an episode.

In the final rule, CMS modified the payment policy to permit a RO participant to submit the EOE claim after the RT course of treatment has ended, but no earlier than 28 days after the initial treatment planning service was furnished. This policy may allow the second installment payment to be paid earlier than 90-days after the SOE. Any RT services furnished after the EOE claim is submitted will not be paid separately during the remainder of the 90-day RO episode.

RO participants are required to submit encounter data (no-pay) claims that include all RT services as they are furnished and would otherwise be billed under the Medicare FFS systems. These claims will not be paid because the bundled payments cover RT services provided during the episode. The encounter data would be used for evaluation and model monitoring, specifically trending utilization of RT services and other CMS research.

Pricing and Payment:

The RO Model transitions to site-neutral payment by establishing a common, adjusted national base payment amount for the episode, regardless of treatment modality and where it is furnished. There are 32 national base rates for the PC and TC for each cancer type. The rates are based on hospital outpatient claims data from 2016–2018 and will be set for the five-year performance period.

Participant-specific payment amounts would be determined based on national base rates, trend factors, and adjustments for each participant's case-mix, historical experience, and geographic location.

CMS further adjusts payment amounts by applying a discount factor. The discount factor, or the set percentage by which CMS reduces an episode payment amount, would reserve savings for Medicare and reduce beneficiary cost-sharing. The discount factor for the PC is 3.75 percent, and the discount factor for the TC is 4.75 percent. The payment amount would also be adjusted for withholds for incomplete episodes (1% each for PC and TC), quality (2% for PC) and beneficiary experience (1% for TC starting in 2023). RO participants would have the ability to earn back a portion of the quality and patient experience withholds based on clinical data reporting, quality measure reporting and performance, and the beneficiary-reported Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Cancer Care Radiation Therapy Survey. The standard beneficiary coinsurance amount and sequestration would remain in effect. There are no payment adjustments for treating multiple tumor sites, utilizing multiple modalities or providing multiple courses of treatment during a 90-day episode of care.

HEALTH POLICY AND ECONOMIC ISSUES REPORT, Cont.

National Base Rates by Cancer Type (in 2018 Dollars)		
Cancer Type	**Professional Base Rate**	**Technical Base Rate**
Anal Cancer	$3,001	$16,544
Bladder Cancer	$2,688	$13,292
Bone Metastases	$1,398	$5,972
Brain Metastases	$1,602	$9,649
Breast Cancer	$2,081	$10,129
Cervical Cancer	$3,829	$17,581
CNS Tumor	$2,511	$14,711
Colorectal Cancer	$2,449	$12,040
Head and Neck Cancer	$3,019	$17,485
Liver Cancer	$2,082	$11,976
Lung Cancer	$2,181	$11,994
Lymphoma	$1,690	$7,855
Pancreatic Cancer	$2,394	$13,384
Prostate Cancer	$3,261	$20,249
Upper GI Cancer	$2,586	$13,530
Uterine Cancer	$2,435	$11,869

Quality & Reporting Requirements:

The RO Model links payment to quality using reporting and performance on quality measures, clinical data reporting, and patient experiences as factors when determining payment to participants.

The RO Model qualifies as an Advanced Alternative Payment Model (Advanced APM) and a Merit-based Incentive Payment System APM (MIPS APM) under the CMS Quality Payment Program (QPP). The RO Model requires RO participants to annually certify their intent to use of Certified Electronic Health Record Technology (CEHRT), include quality measure performance as a factor when determining payments, and bear more than a nominal amount of financial risk.

Beneficiaries:

Eligible Medicare FFS beneficiaries will be included in the RO Model if they receive RT services at a selected CBSA site; are eligible for Medicare Part A and enrolled in Medicare Part B; and has "traditional" Medicare FFS as the primary payer. Medicare beneficiaries enrolled in any managed care organization, including a Medicare Advantage plan (i.e. Medicare part C) is excluded from the RO Model. The RO Model design does not allow Medicare beneficiaries to "opt out" of the Model's pricing methodology, however, beneficiaries have the right to choose to receive RT services in a geographic area not included in the RO Model.

Beneficiaries are responsible for the same cost-sharing as under the traditional payment systems (e.g., typically 20% of the Medicare-approved amount for services), but because CMS applies a discount to each of these components, beneficiary cost-sharing may be, on average, lower relative to what typically would be paid under traditional Medicare FFS. As with all CMMI models, CMS will monitor the RO Model to guard against any unintended consequences that might negatively impact beneficiaries.

Next Steps:

Medical physicists should continue to support clinical activities consistent with standards of professional practice. The absence of Medicare FFS payments should not influence or prohibit professional activities required to support safety and quality of care. RO providers should continue to charge and bill for all services performed, even those without separate payment under Medicare FFS, as the claims will be utilized for practice pattern changes and potentially future ratesetting.

CMS will provide additional billing guidance and educational materials prior to the start of the RO Model. For more information about the RO Model, go to the CMMI site.

Go here for additional information and a more detailed summary of the RO Model final rule. ■

AAPM JOINS SCIENTIFIC SOCIETIES URGING RESCISSION OF ADMINISTRATION'S DEI TRAINING POLICY

LEGISLATIVE AND REGULATORY AFFAIRS REPORT Richard J. Martin, JD | AAPM

In a letter dated October 7, 2020, to the Director of the Office of Management and Budget, 50 scientific societies, including AAPM, asked the Administration to rescind its new diversity, equity, and inclusion (DEI) training policy specified in the Memorandum for the Heads of Executive Departments and Agencies issued September 4 and the September 22 Executive Order. The multi-society letter advocated for a scientific and technical workforce that reflects the diversity of our population, and the letter supported efforts to advance a more diverse, inclusive, equitable, and productive scientific community. The letter noted these executive actions effectively eliminate federal employee DEI training programs and run counter to efforts by federal agencies, contractors, and grantees to foster a more inclusive and equitable work environment. In addition, the letter stated that the Administration's policy "wrongfully insinuating that DEI trainings are inherently anti-American sends a message of division, intolerance, and subjectivity that is damaging to our R&D community."

The policy will impact Federal employees, contractors, and recipients of federal grants--all at the core of the U.S. research and development enterprise. According to a Department of Labor (DOL) news release on September 28, the EO's requirements apply only to those with Federal contracts entered into 60 days after the date of the order, or November 21, 2020. In grants executed after November 21, nonprofits may be required to certify that they will not use federal funds to promote "divisive concepts." The nonprofits, however, could continue to use non-federal funds to deliver such training. The DEI training policy may be modified, as it is anticipated that there will be legal challenges filed and that a rule may be released to clarify terms further. Also, if Joe Biden is elected, the policy would likely be eliminated after the inauguration.

We will continue to monitor developments on this important issue to look for opportunities to advocate on behalf of medical physicists and the scientific community. If you have questions or require additional information, please contact **Richard J. Martin, JD**, AAPM's Government Relations Program Manager, at richard@aapm.org. ■

Email: richard@aapm.org

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

VIRTUAL LIBRARY & ONLINE LEARNING CENTER

AAPM Virtual Library

Presentations posted in the Virtual Library include:

- Streaming video and/or audio of the speakers (Annual Meeting, Spring Clinical Meeting, CRCPD, Summer School, etc.)
- Slides of the presentations (Annual Meeting, Spring Clinical Meeting, CRCPD, Summer School, etc.)

Unlimited access to the virtual library is included as a benefit of AAPM membership at no extra charge. Join the hundreds of other AAPM members who are using the AAPM Online Learning Center and Virtual Library for their continuing education, research, and information needs.

AAPM Online Learning Center

Members have the opportunity to earn CAMPEP approved Medical Physics Continuing Education Credit (MPCEC) and ABR approved SA-CE credits for successfully passing quizzes associated with informational sources such as Journal articles, AAPM Virtual Library presentations, Task Group reports, and other publications. The Online Continuing Education Program runs on a calendar year. Unlimited access to the quizzes and SAM is available to Full members for an annual fee of $75. Reduced rates apply to many membership categories. Choose this option on your AAPM dues invoice or pay online via the Online Learning Center at:

www.aapm.org/education/ce/info.asp

This is a CAMPEP approved program. For each quiz successfully taken, a member will earn 1 MPCEC. Each MPCEC is equivalent to a Category 1 credit. Online quizzes count as self-assessment SA-CE.

Maintenance of Certification-Self Assessment CE/SAMs

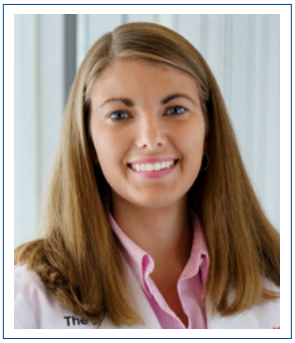
Many AAPM members now require Maintenance of Certification (MOC) as defined by the American Board of Radiology (ABR). The new ABR guideline is as follows: At least 75 continuing education (CE) credits are required every three years. CE credits may be met by a combination of Category 1 credits (CAMPEP or ACCME) and self-directed educational projects (SDEPs). At least 25 of the 75 CE credits must be self-assessment CE (SA-CE).

Additional information regarding MOC can be found at: **https://www.theabr.org/medical-physics/maintenance-of-certification/moc-participation-guidelines**

www.aapm.org

2020 AAPM TIME CAPSULE

HISTORY TIME CAPSULE DEVELOPMENT REPORT Ashley Cetnar, MS
The Ohio State University | Unit No. 62 – History Time Capsule Development Chair



2020 has been a year of much adjustment and uncertainty. The COVID-19 pandemic has changed the world, including the worlds of medical physicists. The AAPM Unit 62 History Time Capsule Development team was formed to represent medical physics in 2020 highlighting the voices of members. This collection will be available on the AAPM website within the AAPM History section for reference for access by members.

So far, our team has conducted virtual interviews highlighting some perspectives during the past year, but we need your help to help represent our membership. We are now collecting responses from all members, including text responses, representative pictures, and videos to commemorate this historical year. Please submit your responses here or reach out for more information.

We look forward to hearing your story! ■

Twitter: @isoCetnar

Email: Ashley.Cetnar@osumc.edu

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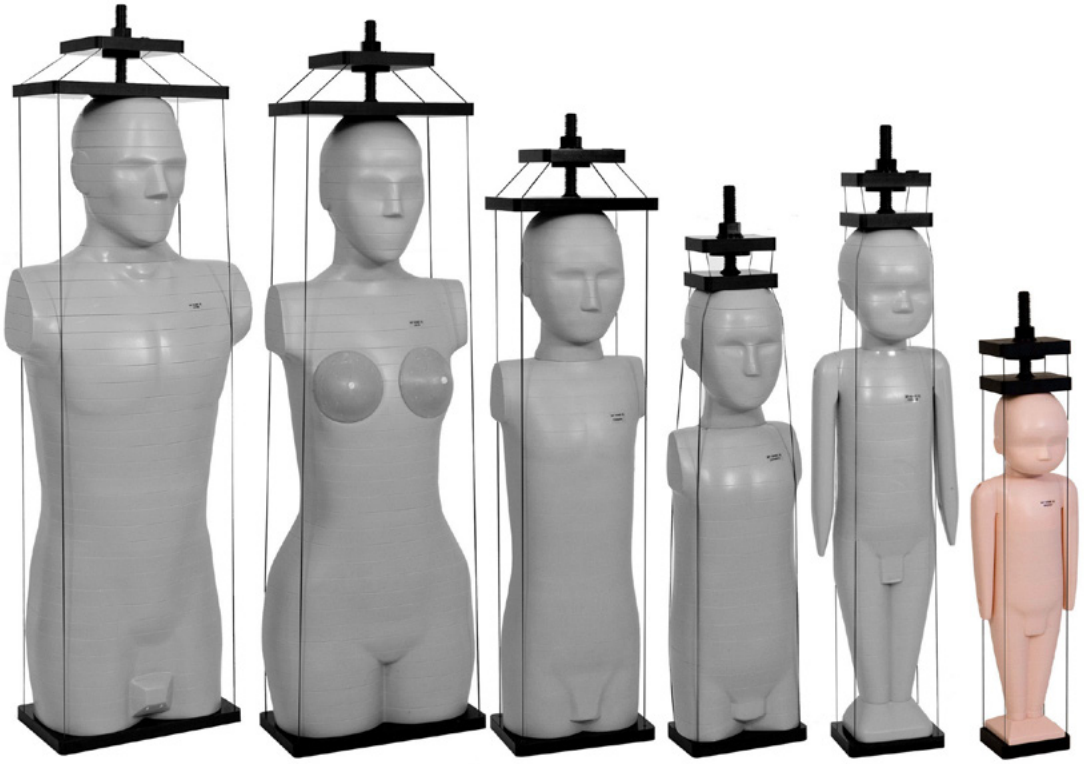
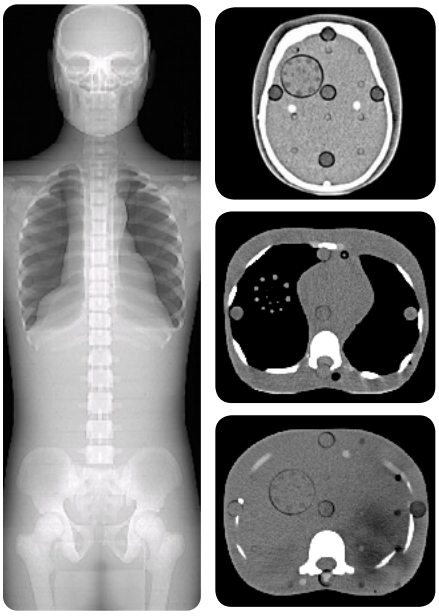


ATOM

DOSIMETRY PHANTOMS



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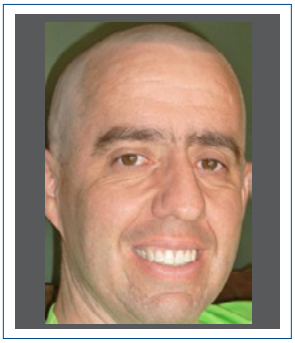
A LETTER TO AAPM MEMBERS ABOUT THE SINGLE POLICY STRUCTURE

INSURANCE SUBCOMMITTEE REPORT Richard A. Shaw, PhD
University of New Mexico | Insurance Subcommittee Chair



The current AAPM-endorsed professional liability policy is offered through CM&F Group, Inc. This is a single product that covers medical physicists regardless of their specialty, whether diagnostic radiology or radiation therapy. Recently, several AAPM members have questioned the reasoning behind keeping medical physics specialties within the same product. Their concern is that the single policy structure does not account for the different risk profiles for the diagnostic versus radiotherapy physicist. They argue that there should be a different product with a different price structure to reflect various job activities and the different liability exposure. The following discussion will address these concerns.

Email: rashaw@unmmg.org

For the medical physicist, liability exposure results from either causing patient injury or property damage. Some have argued that due to the large doses involved, a radiotherapy physicist carries a significantly larger risk of injuring patients than diagnostic physicists. Additionally, due to the large dose rates involved, a miscalibrated radiotherapy device can cause radiation damage more quickly than any diagnostic radiation source. In terms of property/equipment liability, there is an interpretation that the day-to-day equipment used by a diagnostic physicist is less expensive than what is used in radiotherapy and, therefore, diagnostic physicists do not have the same level of liability exposure as a radiotherapy physicist. For these reasons, some AAPM members are arguing that the price for professional liability insurance should be less expensive than for radiotherapy physicists. The AAPM Professional Liability Insurance Subcommittee does not share that perspective. In fact, it can be argued that a diagnostic physicist can carry significant liability, and their criticism mischaracterizes the diversity of services that a medical physicist can provide.

In comparison to radiotherapy physicists, a diagnostic physicist has a much broader impact on patient care. Diagnostic physics performs quality assurance on equipment that serves many purposes beyond the field of oncology. In fact, oncology applications of radiology are only a fraction of their scope. Consequently, diagnostic equipment could be used on a larger patient population than a radiotherapy device. Hence it is argued from this perspective, that the breadth of patient care places a greater liability risk on diagnostic physicists over therapy physicist. The impact of a diagnostic physicist is far-reaching; the impact stretches from diagnosis through treatment, and its application stretches far from just cancer applications where the therapy physicist is confined. Finally, there is a considerable quality assurance infrastructure within a radiation therapy department that

dilutes and distributes risk among a pool of radiotherapy professionals, i.e., therapists, dosimetrists, physicians, vendor service engineers, and independent credentialing institutions. Diagnostic physicists do have similar quality assurance infrastructure. Still, it can be argued that the consistency and robustness are not on the same level as the field of radiation therapy and leaves more of the responsibility on the diagnostic physicist.

Consider this example: if a mammography system has poor image quality and contributes to an inaccurate diagnosis, there is a considerable source of damage both in resulting mistreatment of the patient either over or undertreating the patient. This is multiplied by the number of patients that were imaged with that device. Additionally, if the root cause is the physicist's detector involved in calibration, this risk is then multiplied by the number of machines that the physicist was calibrating. In this case, the risk is concentrated on the physicist.

The discrepancy of liability exposure to property damage can be complicated by the variety of job roles. Even within their own specialty, physicists will use different equipment and work on different devices. So it may be fair to say that for some diagnostic physicists, property liability may be much smaller than a 'typical' radiotherapy physicist. But this is not true for all diagnostic physicists. For instance some diagnostic physicists work on MRI machines, whose value can be comparable to radiotherapy devices. There could be significant damage done to both patient and property with oversights like using non-MRI compatible equipment, i.e. oxygen tanks and stretchers, in regions of high magnetic fields. When compared to therapy physicists, the census of equipment that a diagnostic physicist is responsible for can be considerably larger than a radiotherapy physicist. Hence even though the cost of some diagnostic devices are relatively low compared to radiotherapy devices, the diagnostic physicist has more machines to be responsible for, which expands the pool of possible claims. It is also critical to note that the discussion so far has been framed in terms of liability to an individual claimant or piece of equipment. If, for example, the claim were to be based on improperly certifying mammography equipment you not only face the risk of a personal injury suit from the patient, but also the facility and the physician(s) suing for damage to their reputation and loss of business. If the hospital needs to notify 3,000 mammography patients to come back in there likely is a class action lawsuit to follow.

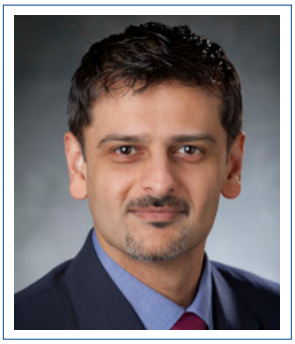
Stripped to its bare essentials, an insurance premium needs to cover not only the claims filed with the carrier during a given year, but also the costs of administration of the program plus something resembling a return on investment by the carrier. In order to administer a national program like the current policy endorsed by AAPM the carrier has to go through state level approval processes in all 50 states and maintain its status in all of those states for the entire time the program is in effect. Different states have different reserve requirements, administration requirements, reporting requirements all of which must be met and monitored. Different states have juries who respond differently to claims that might end up in court, and any claim presented means someone must do a calculation of what the risk to the carrier is, and whether to settle. Further, the premium component arising from claims is calculated based on an expectation value. If there are fewer radiotherapy related claims but a higher damage value the expectation value could be roughly the same if you have a diagnostic pool with a higher number of inputs but a lower probability of a claim.

Lastly there is the matter of the number of program participants which gets ignored in most discussions of a single product environment. Suppose there are an equal number of diagnostic and therapy physicists paying premiums into a single pool. If instead you create two programs, then each pool's premium goes up by a factor of 2 since each program needs to be separately qualified and administered in each of the 50 states. The annual claims expectation value for diagnostic might be lower than radiotherapy, but that is a risk determination that the carrier makes with the approval of the states, not the physicists.

In summary, the AAPM professional liability insurance has in recent years been forced to switch insurers because of unexpected large claims that exceeded the premium base. It should be clear that the remedy is not to split the base of premium participants. Seeking to split the policy would be taking a step backward in terms serving both the individual and the entirety of the AAPM membership. ■

MPLA: THE MEDICAL PHYSICIST'S SECRET WEAPON FOR CAREER ADVANCEMENT

MPLA SPOTLIGHT Anuj Kapadia, PhD
Duke University Medical Center | MPLA Marketing and Publicity SC Chair



Written with contributions from Ashley Cetnar, MS, Patricia Sansourekidou, PhD, Dongxu Wang, PhD, Robin Miller, MS, and Julianne Pollard-Larkin, PhD

What is leadership? Who is a leader? How can I become a strong leader? Such questions come up in our lives all the time. Leadership is recognized as a key behavior intrinsic to everything we do. Leaders define the path forward in all walks of life — government, healthcare, research, innovation, policy, and more. Strong leadership is critical to not only envision new possibilities but also to direct the enterprise in achieving its goals. Most of us can recognize a good (or bad) leader when we see one; yet, not all of us are able to define what makes a leader effective or how one can become a good leader. Recognizing that leadership in medical physics is crucial, and a desire to solve these unknowns led to the creation of the Medical Physics Leadership Academy (MPLA). MPLA is a collaborative effort to offer medical physicists relevant leadership training both in content and application.

MPLA: A Historical Perspective

In 2014, the AAPM Professional Council conceived leadership as a cornerstone for AAPM members' development beyond their scientific and technical knowledge and skills. In 2016, MPLA was officially launched at the AAPM Summer School organized by course directors **Jennifer L. Johnson** and **Bob Pizzutiello**. The MPLA Summer School took a deep-dive into select core facets of leadership and its place in our medical physics and AAPM community. Partnering with Impact International, an organization that focuses on leadership training and people development, we guided participants as they learned effective leadership styles, management of projects, and modes of communication among other leadership and management integrated topics. A unique feature of the MPLA Summer School was that the leadership content was specifically designed for medical physicists. Each case study, project, and activity involved real-life scenarios relating to medical physics careers. The 2016 Summer School was received exceedingly well by the attendees, many of whom created impromptu friendships and discussion groups to continue their conversations about leadership on a regular basis after the workshop.

Building on the 2016 Summer School's momentum, MPLA committee volunteers proceeded to evaluate what leadership training was already available in graduate and residency training programs, and what training and development was needed. The committee engaged with Impact

Twitter: @aapmmpla

Email: anuj.kapadia@duke.edu

MPLA is the only AAPM medical physicist-oriented leadership program to develop necessary leadership and business knowledge and skills as we practice medical physics instead of focusing only on our technical and professional competencies.

International to conduct fifty 360-feedback surveys to gain a composite summary profile of medical physicist leaders' emotional intelligence (personal and interpersonal skills), leadership preferences, and general management styles. MPLA further engaged with Impact International to develop and analyze a medical physicist leadership needs assessment survey for insight into various social, professional, and executive skills. To learn what was already available, MPLA used task groups to formally survey medical physics graduate and residency educational programs leadership training content and resources (TG 295), review previous AAPM sessions for programmatic content (TG 297), and provide a means of resources for members' use (TG 296).

Along with the feedback from the 2016 Summer School, MPLA reviewed and analyzed these results to identify the knowledge and skills necessary for medical physicists. The results were sorted into three broad categories of curricular offerings through the MPLA — interpersonal, professional, and executive. Within each broad category, MPLA identified a core curriculum comprising the skills deemed essential for that category, as well as a complementary curriculum for additional skills to round out the medical physicist's leadership development. AAPM members may access the website for more details of the curriculum and content material.

MPLA Resources, Curriculum, Website, and Events

Since 2017, under the able leadership of committee chair Jennifer Johnson, MPLA has developed into an approximately 60-member-strong entity encompassing five subcommittees. Each subcommittee has a specific charge to build the MPLA infrastructure and grow the MPLA program so that medical physicists may not only learn the relevant knowledge and skills but also may put them into practice. Currently, MPLA has five subcommittees — Website, Community, Cases, Publicity/Marketing, and Progress Assessments — that aim to provide all-around curation and dissemination of leadership training for medical physicists through AAPM.

Website: The Website subcommittee is tasked with reviewing and enhancing website content for the MPLA and its program offerings in business administration and leadership development. The MPLA website went live for all AAPM members in January 2020. Currently, the MPLA website contains presentations from the virtual library. The subcommittee continues to work on adding virtual library directed content and also expanding the material to sources outside of AAPM.

Community: The Community subcommittee aims to develop and facilitate a participant community network, both in-person and online. The Community subcommittee aims to establish a community structure with individual, cohort, and greater MPLA community levels, focusing on topics of business administration and leadership development. Some of the initiatives that the Community subcommittee has launched are "Ask MPLA", where members contribute questions on leadership topics to be answered by the MPLA, a recently launched monthly journal club focused on leadership topics, and a leadership cohorts' program that aims to provide a space for members to discuss and practice what they are learning together.

Cases: The Cases subcommittee is charged with developing and maintaining a library of leadership-themed cases relevant to medical physicists. The Cases subcommittee has produced two case studies that have been used at the 2019 AAPM Spring Clinical Meeting and in medical physics graduate and residency programs as part of their leadership education. The MPLA Cases Subcommittee also produced a Case Writer's Guide to help new members develop and contribute case studies of their own and is now in the process of finalizing a Case Facilitator's Guide along with teaching notes for individual cases.

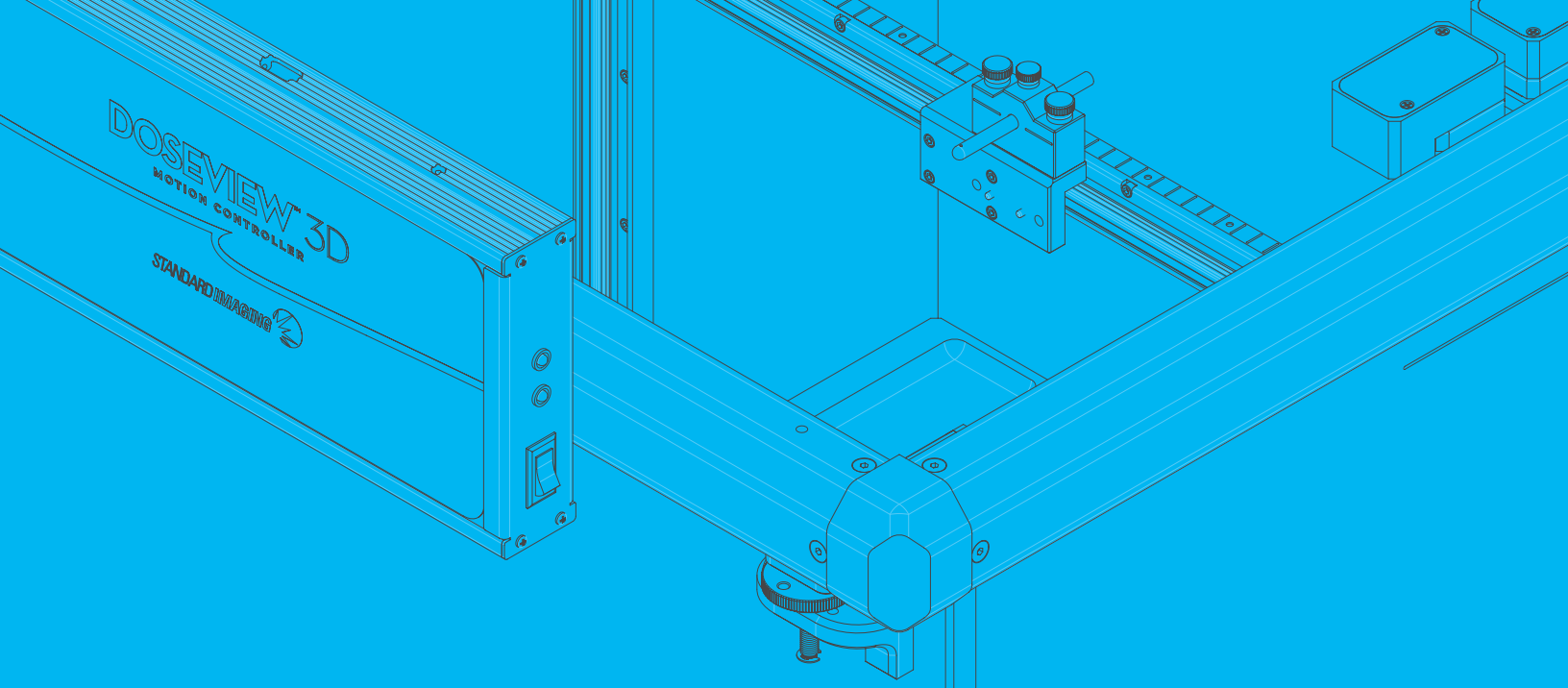
MPLA REPORT, Cont.

Publicity/Marketing: The Marketing and Publicity subcommittee is charged with developing and employing marketing and publicity material for the MPLA and its program offerings in business administration and leadership development. This subcommittee manages the MPLA social media feed, newsletter campaigns, and communication related to the MPLA. The subcommittee is working on developing new initiatives that include podcasts on leadership topics and interviews with medical physicist leaders.

Progress Assessment: The Progress Assessment subcommittee aims to guide MPLA members through the curriculum material and create a customized development roadmap for individual leadership skills development.

Physicists come from a variety of experiences and backgrounds and thus have different needs in terms of leadership training curricular content. The physicists who choose to use this function will be able to benchmark their skills and monitor their own progress. The subcommittee is in the process of assessing how continuing education credits will be acquired for work performed through the MPLA and exploring how users can showcase the development of these skills for their own professional development.

The MPLA is the only medical physicist-oriented leadership program that encompasses medical physics, business, and leadership knowledge to develop and provide leadership training to medical physicists at various stages of their careers. We invite AAPM members to explore the MPLA ■



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AAPM LAUNCHES AN ONLINE REPOSITORY FOR TG-100 RESOURCES

TG-100 UPDATE Per H. Halvorsen, MS | Beth Israel - Lahey Health
Work Group on the Implementation of TG-100 (WG100) Chair

We're pleased to announce the launch of a free online repository for TG-100 related resources. The Working Group on the Implementation of TG-100 (WG100) has collaborated with AAPM's Information Services team to develop a system for submission, structured review, and moderated presentation of member-submitted content.

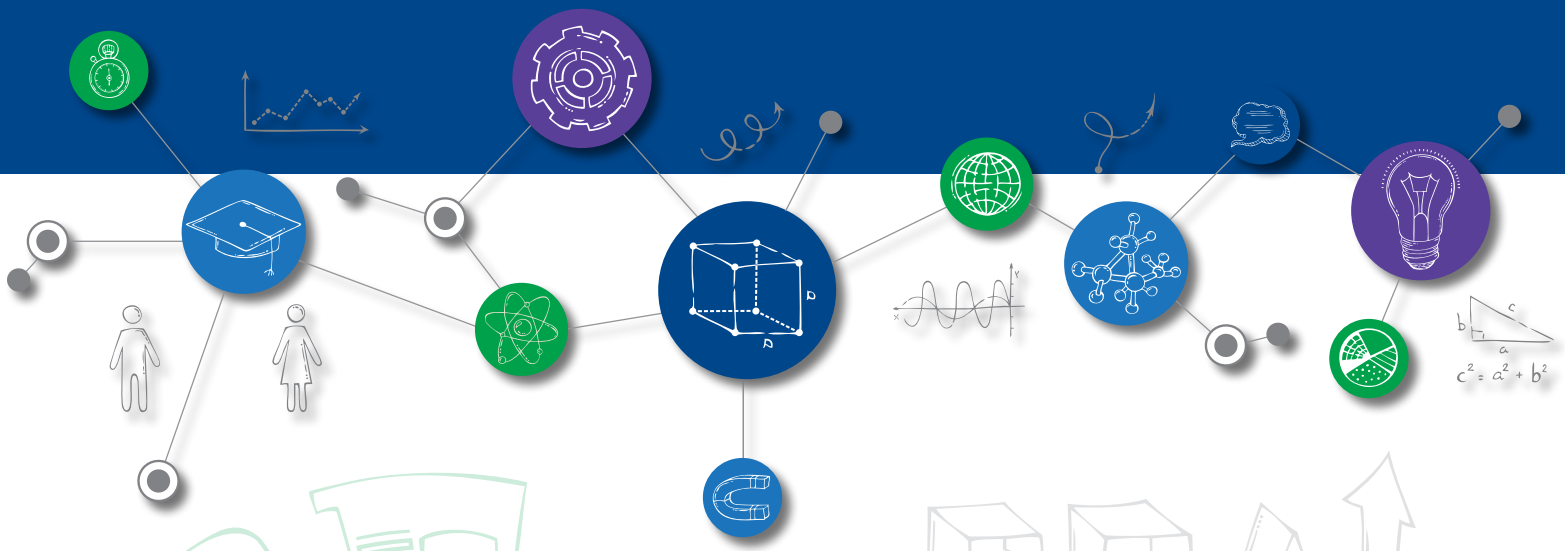
To access the Repository, go to the landing page for AAPM's Medical Physics Electronic Content. Click on the TG-100 Repository link to enter the Repository.

Any AAPM member can submit any content they believe to be relevant and helpful for others in implementing the TG-100 recommendations for risk-informed quality management. The files should be in the native format for the intended use (e.g., macro-enabled Excel templates, Word templates), but could also be illustrative information (e.g., PDF documents or JPEG images). The system is built to facilitate and preserve any file format. After submission, a WG100 review panel will evaluate the submission for relevance and clarity and may communicate with the submitter to ensure that the intended use is clear. We may suggest that a "How to use" document be uploaded, and/or a completed example to illustrate the intended use. Once the submission is approved, it will be posted on the Repository.

All posted content is accessible to everyone, including non-members. A simple categorization scheme should allow for easy navigation of posted content. The content will be accompanied by a brief description of its intended use. The submitter's identity will not be revealed to the users (to spare the submitter from potentially too many emails). Still, any user can post a question that will be reviewed by WG100, and we would facilitate a prompt response to the question, contacting the submitter offline as needed. Users may also post comments regarding any content, which will be visible to all users. ■

Email: Per.H.Halvorsen@Lahey.org

We hope that this Repository will help the medical physics community to share tools and tips for implementation of risk-informed quality management, and welcome your feedback. For general feedback about the Repository, please email the group **or contact the** Chair of WG100.



AAPM EDUCATION & RESEARCH FUND

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For over 20 years, the AAPM Education & Research Fund has been a vital catalyst within medical physics in funding strategic programs such as seed grants for early-career researchers; matching support for clinical residency programs; and fellowships for PhD students. In addition, the Fund attracts undergraduates to the field and promotes diversity, and to-date has funded well over 100 grants, fellowships, and residencies.

Please join your fellow members in contributing to the Education & Research Fund. Together, we can ensure this valuable platform — and our field — remain vibrant and continue to prosper and grow.

focus on our future

RESEARCH

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DOSIMETRY OF SMALL FIELDS IN EXTERNAL BEAM THERAPY: REFERENCE AND RELATIVE DOSE DETERMINATION

SOUTH ASIA CENTRE FOR MEDICAL PHYSICS AND CANCER RESEARCH (SCMPCR) WORKSHOP REPORT

Vijitha Ramanathan, PhD | General Sir John Kotelawala Defence University, Sri Lanka
Mohammad Ullah Shemanto | South Asia Centre for Medical Physics and Cancer Research, Bangladesh

V. Ramanathan

M. Ullah Shemanto

Currently, intensity-modulated radiotherapy (IMRT), stereotactic radiosurgery (SRS), and stereotactic body radiotherapy (SBRT) are becoming the most promising treatment modalities in photon radiotherapy due to the high conformity of dose delivery. All of these techniques use small fields by using either multileaf collimators or other specially designed collimators. This small field technique allows us to achieve the desired dose distribution for planning target volume (PTV) using heterogeneous dose distribution. In the meantime, these complex field arrangements make physicists necessary in complex dosimetry validation. Therefore, small field dosimetry requires further investigation in the field of medical physics.

SCMPCR Workshop participants

Email:
vijitha.r@kdu.ac.lk
osimshemanto0@gmail.com

SCMPCR REPORT, Cont.

The South Asia Centre for Medical Physics and Cancer Research (SCMPCR) is a center of excellence for developing skilled manpower in this sector, especially radiology and imaging outside the radiotherapy and nuclear medicine sectors. Besides this, SCMPCR also provides doctors, nurses, and technicians training in cooperation with different hospitals in Bangladesh and South Asia.

In the meantime, SCMPCR has already arranged five hands-on training programs since 2018 for radiation oncologists and medical physicists to provide a skilled workforce in cancer care for the patient's benefit. Awareness and health education programs were organized as well. The participants were from the South Asia region, including Bangladesh, whereas the trainers are from developed countries like Germany, the USA, Korea, Thailand, etc.

SCMPCR, Dhaka, Bangladesh, organized the 5th Hands-On Workshop (HW-05). This Hands-on workshop, titled "Dosimetry of small fields in external beam therapy: Reference and relative dose determination," was organized by the South Asia Centre for Medical Physics and Cancer Research (SCMPCR) and was held October 2–4, 2019 at the SCMPCR training room and National Institute of Cancer Research and Hospital (NICRH), Dhaka, Bangladesh. The co-organizers for this workshop were the American Association of Physicists in Medicine (AAPM), University Medical Centre Mannheim, Heidelberg University, Gono Bishwabidyalay (GB), and the National Institute of Cancer Research and Hospital (NICRH). The resource persons for this hands-on workshop were **Professor Jan Seuntjens**, Director of faculty medical physics, McGill University Health Centre, Montreal, Canada; **Professor Golam Abu Zakaria**, Chairman and Chief Medical Physicist at Gummersbach Hospital – University of Cologne, Germany; and **K. Kanakavel**, Assistant Manager, Medical Physics and Applications support for PTW India. This hands-on workshop was attended by 24 participants, including three from India, three from Sri Lanka, two from Nepal, and one from Bhutan.

The first day was started with warm welcome speeches by professors Zakaria, Seuntjens, and **Hasin Anupama Azhari** at the SCMPCR training room. Following this, Professor

Lecture by Professor Jan Seuntjens

Lecture by Professor G. A. Zakaria

Crest Giving Ceremony

Seuntjens did his first lecture on "Short review of dosimetry concepts and conventional reference dosimetry." In this lecture, the professor discussed some dosimetric concepts, formalism used in Technical Report Series (TRS)-398, and step-by-step procedures for photon beam calibration. The second lecture was also conducted by Professor Seuntjens, in which a clear explanation of Physics and challenges of small field MV photon beams was given. Then, K.

Kanakavel gave a lecture on "Practical tricks and tips for relative measurement in small fields." Professor Seuntjens gave another important lecture on "IAEA -AAPM TRS -483 code of practice." At the end of the first day of the workshop, Professor Zakaria gave a lecture on "Small field detectors." All lectures were very stimulating and informative. During the talks, enough time was given for queries. It was a very productive day.

The second day of the workshop was a practical on small field dosimetry held at NICRH, Dhaka, Bangladesh. The orientation program for this practical session was begun with the welcome speech of **Professor Moarraf Hossen**, Director of NICRH. There were two sets of practical; the aim of practical 1 was to determine the absorbed dose in the standard reference field and machine-specific reference (msr) field under the supervision of Professor Seuntjens, while the aim of practical 2 was to determine the field output factors using the dosimeters of PTW 31016 PinPoint

SCMPCR REPORT, Cont.

Inaugural Program, NICRH

Practical Session

Examination

3D, PTW 60019 CVD Diamond, and PTW 31010 Semiflux3D. The participants were grouped into two. For the morning session, group 1 was assigned to practical one and group 2 was assigned to practical 2. Then, the groups were swapped in the afternoon. Professor Seuntjens requested the two groups present their work during the next day's session, but he selected the presenter from each group. Therefore, all participants were very actively involved in the practical. It was an intense and fantastic experience!

The last day of the workshop began with Professor Seuntjens' lecture on uncertainties associated with using the small field code of practice. This lecture also was beneficial. Then we had an exam. The exam was challenging, but most of the participants got through. Therefore, it indicates how the participants effectively participated in this workshop. Next, the presentations from the two groups were held. Professor Seuntjens asked so many questions from the presenters. It was fascinating. The certificates were issued to the participants with 37 CPD credit points to those who passed the exam and 32 CPD points for those who didn't pass the exam. Finally, the participants were allowed to comment on the workshop. All gave very positive comments about this workshop. Finally, the participant from Nepal gave a very emotional comment about this workshop. It made all of us emotionally excited. I realized from these comments how much effort they put in to arrange this workshop. The session was successfully ended by taking a group photo. Lastly, I would like to say my sincere thanks to the organizing committee of this workshop on behalf of the participants for this wonderful arrangement. It motivates us to develop the field of medical physics in our country. ■

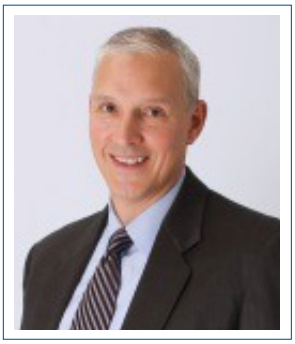
Lecture by Professor Jan Seuntjens

Examination

Certificate Distribution

PROFESSIONAL LETTERS OF REFERENCE: ADVICE FOR THOSE WHO NEED THEM AND THOSE WHO NEED TO WRITE THEM

PROFESSIONAL SERVICES COMMITTEE REPORT Todd Pawlicki, PhD, UC San Diego
Chelsea M. Page-Robertson, MS, Banner MD Anderson Cancer Center
Robin Miller, MS, Northwest Medical Physics Center



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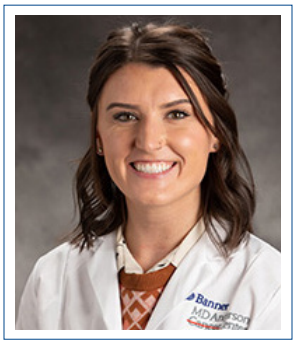

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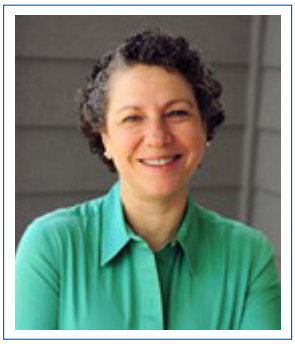


R. Miller

Email:
tpaw@ucsd.edu
chelseapager@gmail.com
robin.miller95@gmail.com

*The AAPM Professional Services Committee (PROFS), under the leadership of **Robin Miller**, has undertaken the task of preparing a series of AAPM Newsletter articles on an important professional issue. There have been a number of sessions at the Annual and Spring Clinical Meetings that have addressed issues related to jobs, job hunting, securing your first job, and changing jobs. One topic that has not been previously covered is the important job-related issue of professional letters of reference, which is the topic of this AAPM Newsletter series of articles.*

There are two different types of letters of reference: personal and professional. Personal letters of reference are primarily focused on providing a character testament for the subject of the letter. Knowledge of the subject's professional knowledge or skills are not necessary for a personal letter of reference. In professional letters of reference, knowledge or assessment of professional competence is essential. Any comments about a subject's character will be implied in a professional letter of reference. The remainder of this Newsletter series of articles is focused exclusively on professional letters of reference.

There are many types of reference letters that are needed. Figure 1 shows the types of letters that will be discussed in this series of articles. While there is some overlap between the different types of letters, there are also some unique aspects that need to be considered. In the coming Newsletters articles, we will discuss these categories from the perspective of those writing the letters and those asking for letters. The goal is to understand the differences and similarities, as well as understanding some strategies for cultivating relationships that will be helpful when letters of reference are needed.

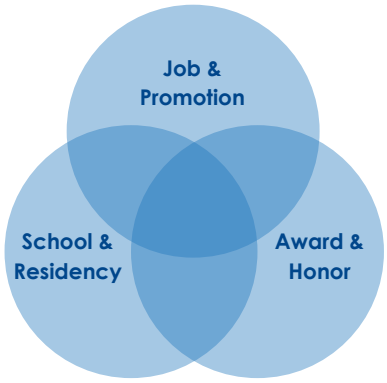


Figure 1: Types of reference letters.

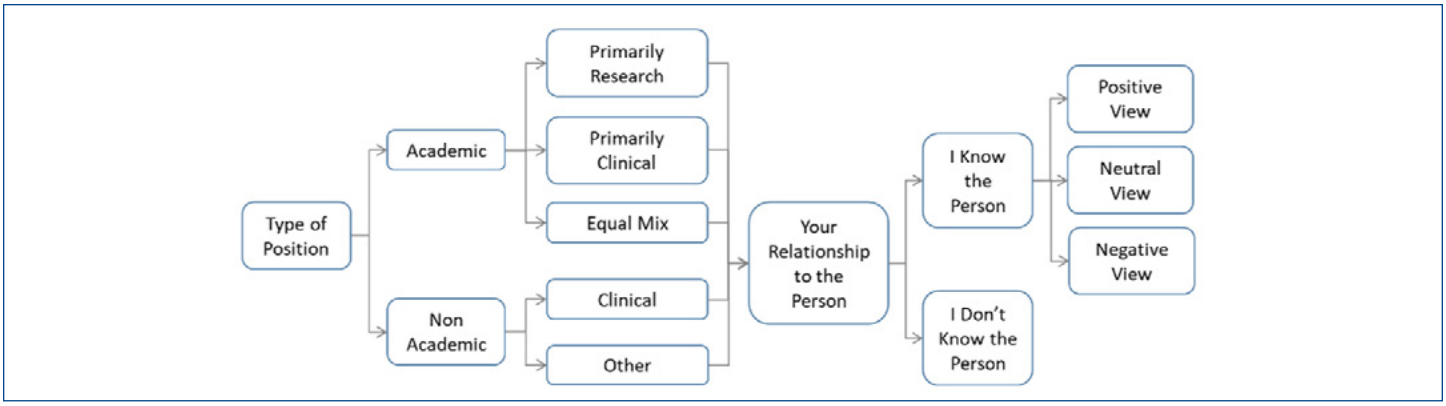


Figure 2: Reading this flowchart from left to right can help determine the relevant aspects of the professional reference letter related for a job or promotion.

Whether you are asking someone to write a letter of reference for you or writing a letter for someone else, it can be helpful to have a picture of the different types and perspectives of professional reference letters. A decision flowchart for a job or promotion is shown in Figure 2 and will be discussed over the coming articles.

General Suggestions When Writing Letters of Reference

A letter of reference is simply a formal assessment of a subject's professional competence. The aspects of professional competence that need to be emphasized are typically provided by the person, institution, or organization that is requesting the letter of reference. The aspects will be different depending on the position for which you've been asked to write the letter. For example, research and clinical jobs will be looking for very different skill sets. In general the letter should explain why the subject is qualified for the job. A related aspect is to explain why the subject is the right fit for the job. As someone writing a letter of reference for a job applicant, it is important to understand both the job description and the evaluation criteria.

General Suggestions When Asking for Letters of Reference

You should consider carefully who to ask when you need a letter of reference. You may be asked to provide names of people that you have not previously worked with or have been mentored by. In this case, it is important to assess the response of the person when you ask to ensure that they have the time and are likely to give you a positive review. Asking your boss or chief can be helpfully to generate names of people that you don't know but would be willing to write a letter of reference. It gets more challenging when you can't ask for a reference from anyone you are currently working with.

When you're asking someone you know for a letter of reference, think about the positive relationships that you've built over time. It's good to ask people that know different aspects about your career and who can cite specific examples of your work so you'll have a range of responses.

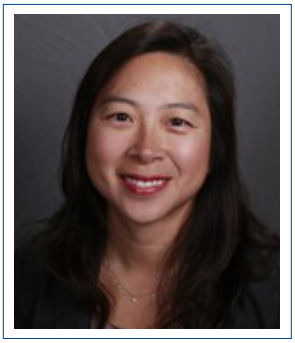
Most people you ask will be happy to help out with a letter of reference. It may be the case that they ask you to help them by writing the letter for them. This is acceptable and you should take them up on the offer and provide them with a letter that they can then edit. You may also offer to draft a letter or outline of a letter for them to complete.

Summary and Next Steps

There is much to discuss in the coming articles as we get into the specifics, for example, being aware of issues related to implicit bias in writing and reviewing letters of reference. The following two articles in this series will discuss writing the different types of letters as well as developing professional relationships and requesting letters of reference. We hope that you will find these articles useful. ■

IHE-RADIATION ONCOLOGY (IHE-RO) ACTIVITIES

IHE-RO REPORT Mary Feng, MD | University of California San Francisco
Björn Hårdemark, MSc | RaySearch



M. Feng

B. Hårdemark

IHE-RO is an effort, currently sponsored by AAPM, to improve the interoperability of systems involved in radiation oncology. IHE-RO aims to identify how existing industry standards, such as DICOM, HL7 and FHIR, can be used to solve specific use cases involving multiple systems. IHE-RO does not directly create or modify such standards, but rather helps vendors find a common way of using them for specific purposes. These use cases, called profiles, have the potential to help systems from different vendors communicate safer, faster and/or with greater detail between each other. Profiles can also be used between systems from the same vendor to provide clearly observable and well-defined transitions between different parts of the systems. This allows for external systems to monitor and inspect the transfers, for instance, for the purpose of quality assurance or reporting.

Structurally, IHE-RO has three main components, the Planning Committee (responsible for identifying interoperability issues and developing use cases describing the issue), the Technical Committee (responsible for developing solutions to use cases identified by the Planning Committee), and the Working Group on IHE-RO, an AAPM Science Council Working Group responsible for the overall activity, budgeting, and evaluation of the effectiveness of the IHE-RO effort.

This report is the second of three articles describing current IHE-RO activity. Its focus will be on the recent activities of the IHE-RO Planning Committee. The third article will describe the work of the AAPM Working Group.

The IHE-RO Planning Committee is composed of physicians, medical physicists, and software developers and managers from industry. The committee is co-chaired by a medical physicist, a physician, and a vendor representative. Currently, these are **Alf Siocchi, PhD** (WVU), **Mary Feng, MD** (UCSF), and **Björn Hårdemark, MSc** (RaySearch). The planning committee conducts periodic surveys of clinical radiation oncologists and physicists from academic and private practice centers in the US and abroad to assess pain points rooted in interoperability issues. After discussion with the Technical Committee to define both the clinical issue and the technical challenges, these become use cases for the Technical Committee to solve, with the overall goal of improving

Email:
Mary.Feng@ucsf.edu
bjorn.hardemark@raysearchlabs.com

Twitter: @MaryFengMD

Planning committee meetings are generally held monthly via teleconference. If you are interested in reporting an interoperability issue or joining the planning committee, you can do this from the IHE-RO page on the AAPM website.

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IHE-RO REPORT, Cont.

the safety and efficiency of radiation treatments and integration into the overall treatment management course of patients.

Interoperability challenges identified by the Planning Committee and incorporated into new profiles for problem-solving include information exchange between the radiation oncology information system and the hospital electronic health record for more seamless communication with other medical professions, as well as data exchange for deformable image registration. In a new feedback loop, the Technical and Planning Committees will periodically jointly review each profile for progress and timelines, in addition to clinical relevance and prioritization. ■

IMPROVING THE TIMELINESS OF AAPM TASK GROUP REVIEWS

WORKING GROUP ON TASK GROUP REVIEW STREAMLINING (WGTGRS) REPORT

Jean M. Moran, PhD | University of Michigan Medical Center

The Working Group on Task Group Review Streamlining (WGTGRS) is committed to improving the timeliness and quality of the review process for task group reports created by the committees within Science Council. **Nancy Vazquez** of AAPM HQ has a critical role in supporting this effort. We have been using the AAPM's Report Management System to process reports once they reach the committee level. Approximately 27 reports have been reviewed using the system. At its s pring retreat (held virtually this year), Science Council voted to adopt a new process that incorporates concurrent review after a report is approved by its parent committee. We are in the process of working with Science Council, EXCOM, and *Medical Physics* leadership on the best approaches to implement these exciting changes. Combined reviews have already been incorporated by work groups and at subcommittee levels when applicable. Another change, which Therapy Physics Committee (TPC) reports have adopted, is the explicit creation of Key Recommendations. Task Group chairs and vice-chairs are submitting drafts of the recommendations for an early review by the parent work groups and subcommittees during the writing process. Within TPC, we have received positive feedback that the early review has already helped reports stay focused on the primary charges and prevented drifting into areas covered by other reports. We will continue to work on ways to improve this process. We encourage members to participate in the public comment period for AAPM members, which is the standard for newly submitted reports once they reach the committee level. ■

Email: jmmoran@med.umich.edu

Twitter: @JeanMoranPhD

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