AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

IMPROVING HEALTH THROUGH MEDICAL PHYSICS

AAPM NEWSLETTER

November/December 2021 | Volume 46, No. 6

IN THIS ISSUE:

- Chair of the Board's Report
- Education Council Report
- Global Medical Physics Education Forum Report
- MIDRC Subcommittee Report
- Development Committee Reports

...and more!

COVID-19 UPDATE

Notice as of Sunday, October 31, 2021, 9AM Eastern Time.

- COVID-19 Information for Medical Physicists
- Beginning August 1, AAPM will allow in-person meetings and AAPM-funded travel for those fully vaccinated, with the understanding that individuals may participate virtually if they do not feel comfortable traveling. Meetings at AAPM HQ must follow guidelines established by EXCOM as appropriate to circumstances at the time of the meeting.

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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 2022
Submission Deadline: December 4, 2021
Posted Online: Week of January 4, 2022

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

2022 UPCOMING MEETINGS

SAVE THESE DATES

- **IMRT QA: LEARNING FROM OUR PAST TO MOVE PATIENT SAFETY FORWARD**
  January 24 – 25, 2022 | Virtual Specialty Meeting
- **AAPM SPRING CLINICAL MEETING**
  March 26 – 29, 2022 | New Orleans, LA
- **2022 AAPM SUMMER SCHOOL**
  Small Field Dosimetry, Stereotactic Radiosurgery and Stereotactic Body Radiation Therapy: The Future Is Here
  More Information to be Announced
- **AAPM 64TH ANNUAL MEETING & EXHIBITION**
  July 10 – 14, 2022 | Washington, DC

aapm.org/meetings

A TRIP DOWN MEMORY LANE

CHAIR OF THE BOARD'S REPORT M. Saiful Huq, PhD | UPMC Hillman Cancer Center and University of Pittsburgh School of Medicine

As I prepare to write this column, many thoughts cross my mind. This will be my last contribution to the AAPM Newsletter as a member of the Presidential chain. It seems like just the other day when **Bruce Curran** woke me up after midnight to ask whether I would be interested in running for the President of AAPM. It's been over three years since that call, and the time went by fast. What a wonderful journey it has been to serve YOU, the AAPM members, and this amazing organization, run by volunteers, as President-Elect, President, and Chair of the Board of Directors.

Forgive me, please, for being nostalgic at this moment as I take a tour down memory lane with a focus on the year 2020, the year when I was the President of AAPM.

The year 2020 was unprecedented from many perspectives. The outbreak of the coronavirus disease (COVID-19) pandemic across the US and the world severely impacted human lives, the global economy, and the day-to-day lives of all Americans. The leadership of AAPM was faced with challenges never seen before. Our immediate needs were to decide what to do with the Spring Clinical meeting and the Annual Meeting. Under the leadership of Bruce Curran, the Ad Hoc Committee to Respond to the Impact of the Coronavirus (COVID-19) on AAPM Meetings (AHRICM) recommended that both the Spring Clinical Meeting and the Annual Meeting be held virtually. EXCOM and the Board concurred. It was a monumental task because holding such large-scale meetings virtually was unheard of before. There were risks of losing millions of dollars for the organization and overcoming technological considerations to hold virtual meetings of the size of the Annual and Spring Clinical Meeting was a gigantic task. But the creative and dedicated volunteers of AAPM decided to face these challenges head-on. The army of volunteers led by **Chris Serago**, Chair of the Meeting Coordination Committee (MCC), the leaders, and volunteer members of the Spring Clinical and Annual Meeting Subcommittees, **Angela Keyser**, Executive Director of AAPM, and the entire HQ staff worked tirelessly for months to convert the planned programs to virtual meetings. These were tremendous accomplishments, the shining moments of AAPM, and led the world on how to hold large-scale virtual meetings successfully. These successes laid the foundations for holding future hybrid meetings. AAPM thanks all these individuals for their dedication to making these happen.

During this time, hundreds of thousands of people were dying across the United States and across the globe from the outbreak of COVID-19. Life was uncertain; members of AAPM were concerned about their health and safety and were faced with many questions on how to perform their clinical, scientific, professional, and other day-to-day responsibilities effectively in a safe environment. The medical physics community needed a resource to

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A special thanks to all the members of the HQ staff who are an incredible set of professionals, always willing to help and always going truly above and beyond to help all members of the organization and for extending all the help that I needed regardless of the time of day or day of the week. AAPM is truly blessed to have you working day and night behind the scenes. Of course, I could not have done my duties effectively as President of AAPM were it not for the mentoring, guidance, and the true partnership of Angela Keyser, our Executive Director. Angela, thank you for being there when I needed you. You are an amazing individual, and the organization is truly blessed to have you as its Executive Director.

advise them on how to deal with these issues. The Ad Hoc Committee on Covid-19 response (AHCCR) fulfilled this critical unmet need. As chair of this Ad Hoc Committee, **Gerald White** worked very closely with **Brent Parker** and other committee members to create a COVID-19 response webpage on the AAPM website to disseminate information useful to the medical physics community. They compiled volumes of new and existing COVID-19 related information and recommendations in clinical, educational, professional, infection control, economic, research, and other areas and published them on this website. This served the medical physics communities across the world and proved to be of tremendous value. Thank you, Jerry, Brent, and the members of the AHCCR.

2020 was also the year when the country experienced explosive social unrest from the horrific deaths of George Floyd, Breonna Taylor, Ahmaud Arbery, and others. Breaking the tradition of maintaining neutrality in the political events that occur in the country, AAPM took a bold step and published a position statement condemning the longstanding problems of racism and injustice that disproportionately affect our communities of color and taking a position to strive collectively to address these issues. We stated boldly that AAPM as an organization values the importance of diversity and inclusion, and these alone are not sufficient to address all the longstanding issues of concern to our members and neighbors from historically marginalized communities, but they are a start. We stated that AAPM is committed to the fair, just, and equitable treatment of all our members and indeed all members of society so that everyone has the right to safety, respect, and the opportunity to contribute. We stood shoulder-to-shoulder with our members and encouraged everyone to embrace our common humanity and work for solutions to these problems. If one segment of our community is hurting, it adversely impacts all of us. There was overwhelming support from the AAPM membership for taking this position.

Because the issue of diversity and inclusion is of paramount importance to AAPM, **Julianne Pollard-Larkin**, Chair of the Ad Hoc Committee for Equity, Diversity, and Inclusion (AHCDI), worked with her team members to develop a clear statement of acknowledgment of the current lack of and the need for diversity within AAPM. They are also developing a roadmap to identify and enumerate the diversity needs of AAPM at the organizational level and recommend strategies to meet these diverse needs. Because of the high importance at the organizational level, this Ad Hoc Committee has been formally established at the committee level under the Professional Council. Thank you, Julie, and your team for doing this vital work. I cannot wait to see how your work will change the face of AAPM in the next 5–10 years.

In 2019, we took the major initiative to bring all AAPM's international activities under one umbrella and began the process of creating an International Council. The Ad Hoc Committee for Defining the Structure, Charges, and Budget for 2020 of the International Committee (IC) and its Subcommittees (SCs) (AHIC) had extensive discussions with the council chairs, vice chairs, and the EXCOM regarding a modified structure for international activities within AAPM and recommended the formation of an International Council. Prior to 2020, the international activities of AAPM were dispersed under two councils, two committees, twelve sub-committees, and one unit. Given the increasing importance of global activities for medical physicists, it was recognized that bringing all international activities under an International Council would provide AAPM coordination, consistency, rigorous oversight, and strategic development of its global activities.

The theme of the 2020 Joint AAPM | COMP Virtual Meeting and the Presidential Symposium was "Improving Health Quality. Increasing Global Impact". The keynote presentation was given by HRH Princess Dina Mired of Jordan. This was one of the most unique symposiums in AAPM's history.

Formation of an International Council required By-Laws changes, and YOU, the membership, approved this change, thereby clearing the path for the formation of this Council. This new Council will have a far-reaching impact on the global initiatives of AAPM in the next decade. Thanks to all of you for making this happen.

The growth of AAPM membership has plateaued over the last few years. It is recognized that if we are to grow the tent of AAPM, we will need to reach out beyond the borders of North America. The International Council will play a significant role in this initiative. The Ad Hoc Committee on Membership (AHCMEM), led by **Russell Tarver**, is working feverishly to recommend changes, as appropriate, in our membership and affiliation categories to best meet the needs of the current membership and

CHAIR OF THE BOARD'S REPORT, Cont.

situate the organization for membership growth. Thank you, Russ, and the AHCMEM team for undertaking this very important work.

I take great pride in especially recognizing the tremendous leadership provided by **Maryellen Giger** and **Paul Kinahan** for the creation of The Medical Imaging and Data Resource Center (MIDRC), which is a multi-institutional initiative funded by the National Institute of Biomedical Imaging and Bioengineering (NIBIB). AAPM co-leads this initiative with ACR and RSNA. MIDRC has a great vision. Their present focus is on COVID-19 and providing researchers with imaging and associated clinical data in the fight against COVID-19. The creation of such an infrastructure is an outstanding accomplishment. Thank you, Maryellen and Paul.

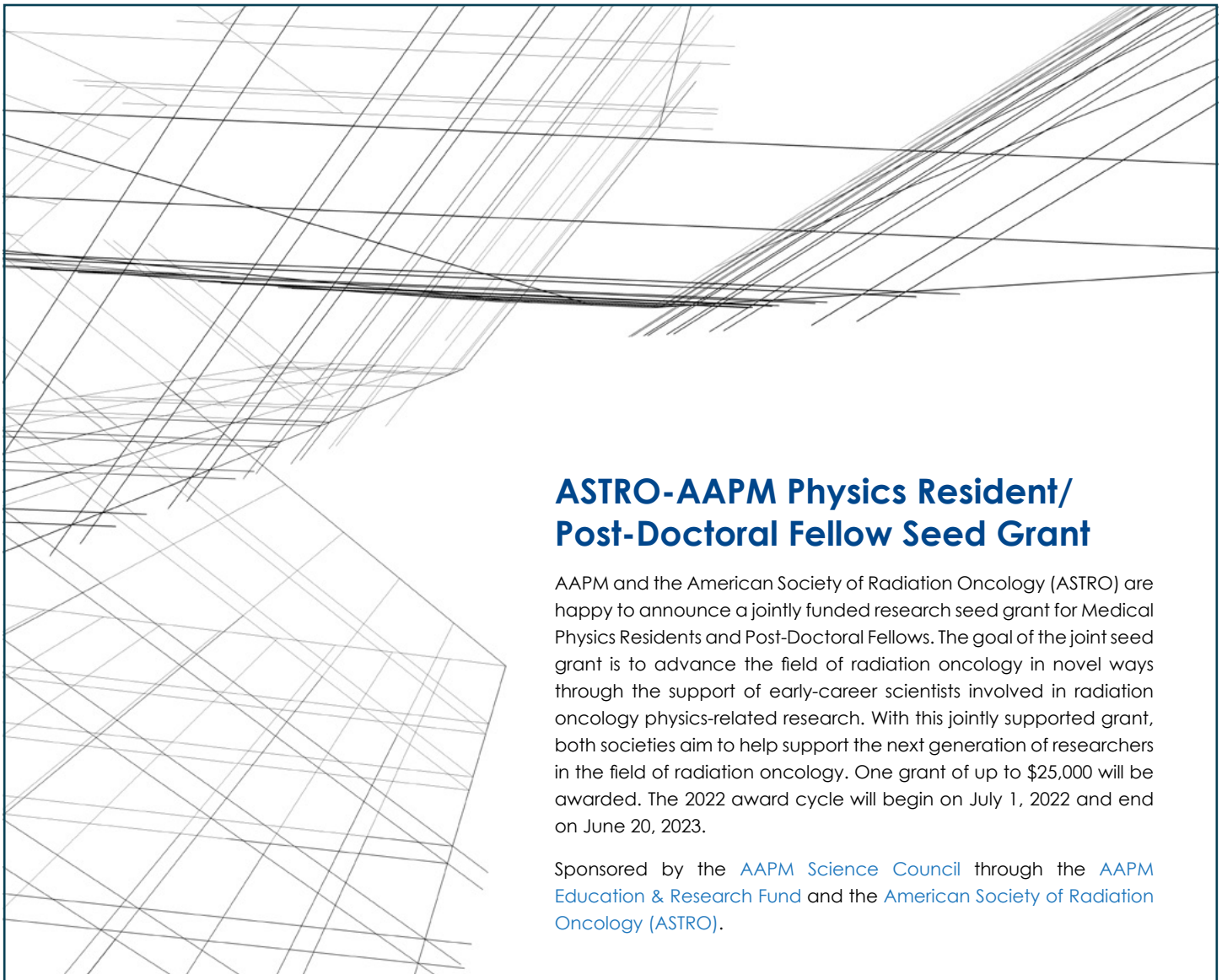
I will be remiss if I do not mention the creation of the program "Volunteer Engagement Program Participant (VEPP)," building tomorrow's leaders today. This program provides opportunities to early and mid-career professionals to participate in AAPM's councils, committees, sub-committees, working groups, and task groups and is a direct result of the feedback from the early career AAPM members.

During the year 2021, the Council Chairs, EXCOM, members of the Board of Directors (BRD), the Strategic Planning Committee (SPC), and I, as the Chair of the Board, spent most of our time determining how the Board can be more effective in performing its fiduciary responsibilities as well as providing guidance of strategic importance to the organization. We engaged McKinley Advisors, a professional consulting firm well known across the country, for providing such guidance. The President and CEO of McKinley Advisors spent a significant amount of time at one of our Board meetings discussing how Boards across the country function effectively. McKinley has interviewed many of the Board members and performed a Board assessment survey. They will provide a report at the November Board meeting about their findings and provide recommendations on making our Board more effective. It is our hope that at the November meeting, the Board will provide guidance on how best we can move forward with Board activities, especially concerning the strategic planning activities of the Board. The Presidential Chain is committed to working together to ensure the continued implementation of this guidance in the future.

As an organization, AAPM is truly fortunate that it has incredible Council leadership. One of the strengths of our organization is that we elect a new President-Elect every year. These individuals bring fresh ideas to the organization and propel the organization to newer horizons. It is critically important that every President commits to continuing to support the initiatives pursued by their predecessor while pursuing their own initiatives. I am happy to report that there is a strong sense of camaraderie among the members of the EXCOM and a sense of commitment to move the organization further in the future through collective initiatives by joining hands with the Council's leadership and the members of the Board of Directors. Working together with the EXCOM, the Board of Directors, and supported by the amazing HQ staff, AAPM is poised to excel far into the future.

I am proud that as a member of the Presidential chain of AAPM, I worked with YOU, the membership of AAPM, EXCOM, the members of the Board of Directors, the Council Chairs and Vice Chairs, the Chairs and Vice Chairs of various committees, subcommittees, workgroups, task groups, the units, and the amazing HQ staff to accomplish many monumental tasks through this turbulent historical period. As your President-Elect, President, and Chair of the Board, I had the privilege, opportunity, and honor to meet many of YOU, the membership, either in person at various chapter meetings or virtually. I also had the opportunity to meet the leadership of many professional societies globally. What a privilege it has been to serve you during this once-in-a-lifetime opportunity. I am deeply indebted to YOU for bestowing this opportunity on me. Lastly, I want to express my heartfelt thanks to the current members of EXCOM and the chairs and vice chairs of the five councils, who were always very professional, courteous, and extremely pleasant to work with. Thank you, **Jim Dobbins**, for being a very collegial partner during the time we spent together and for your continued support for all the initiatives that I undertook during my Presidential year. A special thanks to all the members of the HQ staff who are an incredible set of professionals, always willing to help and always going truly above and beyond to help all members of the organization and for extending all the help that I needed regardless of the time of day or day of the week. AAPM is truly blessed to have you working day and night behind the scenes.

Thank you all. ■



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 2022 award cycle will begin on July 1, 2022 and end on June 20, 2023.

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 11th, 2022at 11:59 PM Eastern time. **All applications must be submitted through ASTRO's ProposalCentral**.

Find more information on details about this grant opportunity here.

Application Deadline: February 11, 2022 | **Program Contact:** Shana Donchatz

WHY UNDERSTANDING VARIABLE AND FIXED COSTS IS IMPORTANT

TREASURER'S REPORT Mahadevappa Mahesh, PhD | Johns Hopkins University

I am writing this report with a bit of sadness, as this is my last Newsletter issue as your Treasurer. I was very fortunate to have your confidence and trust in me as your Treasurer during my terms. I cannot believe six years (2016-2021) and the opportunity to work with six different AAPM Presidents has passed so quickly. I cherish the time I have spent working for our organization. During my terms as Treasurer, I met many dedicated volunteers who have now become good friends. When I began my position as Treasurer, our finances were already strong. I am happy to share that our finances continue to be strong and growing (for details, check out my column in the September/October 2021 issue of the Newsletter).

I want to thank all those who served on the AAPM Finance Committee for their dedicated service. I would also like to thank the Council Chairs, because of their dedication and team effort, I successfully completed every budget meeting on a positive note. I sincerely appreciate **Robert McKoy**, AAPM Finance Director, for the many meticulous hours he worked with me on AAPM finances over the past six years. Before the pandemic, Robert would come to my office and spend an entire day with me to finalize budget forms before heading to the annual budget meetings. I would also like to thank all AAPM Staff Liaisons to the various Councils and committees, who were always ready to provide the necessary information I requested while finalizing the budget. Finally, I would like to express my gratitude to Angela Keyser for her leadership of a dedicated staff and making our volunteer work look so easy.

As I am finishing my term, I wanted to discuss an important aspect of our budget, i.e., the importance of understanding variable and fixed costs. Robert provided me the below text explaining in simple terms the significance of these items and why it is crucial for all of us not to lose focus on these costs.

Why is it important to know and understand the importance of fixed and variable costs?

Understanding a business's streams of revenue and expense outflows has been the key to maintaining the profitability of a said business. So first understanding the streams of revenue is essential. For AAPM, this includes understanding the particular nuances in membership dues, journal publications, and meeting revenue which comprised approximately 80% of AAPM's operating revenue in 2020. A business incurs two types of costs, fixed and variable.

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If you have any questions related to this report, please feel free to reach out to me (email **me, call me at 410-955-5115, or** tweet **me).**

Fixed Costs

Fixed costs, also known as overhead or indirect costs, are those costs that typically remain constant for a period of time regardless of business volume. Examples of fixed costs include salaries, rent, mortgage payments, telephone, internet costs, and business insurance. Typically, these costs do not change with fluctuations in sales or programs.

Variable Costs

Variable costs, also known as direct costs, change over a specified period and are directly linked with business activity. In a manufacturing environment, they are related to the volume of product produced, in a distribution environment to sales, and in the not-for-profit world, programmatic activity. Examples of variable expenses include travel costs, taxes, consulting expenses, and credit card fees.

Fixed and variable costs make up the cost structure of every business. Understanding these costs and how they impact your bottom line helps one make sound business decisions that improve the bottom line.

During periods of economic slowdown, businesses look to reduce costs to offset declines in revenue they are experiencing. The first step in this process is to go after the low-hanging fruit, the variable costs.

Knowing and understanding the difference between fixed and variable costs has always been important, but perhaps never more so in the past two years. As governments attempted to slow the spread of COVID-19 many implemented some form of a shutdown. As a result, businesses directly or indirectly impacted by the shutdowns experienced significant declines in revenue.

As a result of these declines in revenue, many businesses were forced not only to reduce their variable costs but also to reduce their fixed expenses. As your Treasurer, I feel very fortunate to tell you that while AAPM did experience a decline in revenue during the pandemic, the decline was offset by an equal reduction in variable costs (mostly travel-related expenses). Thus, fixed costs were not impacted.

During my tenure as Treasurer, I witnessed an overall increase in fixed costs. An increase in fixed costs allows AAPM to maintain the infrastructure needed to deliver the mission and excellent services so vital to our members and constituents. It's a delicate balancing act of meeting needs and ensuring that the costs do not get out of control.

As Treasurer, I focused on transparency and engagement with the membership through my Newsletter report in each issue. Various finance topics were covered in these reports, and I hope they will serve as a reference resource for future AAPM Treasurers. In closing, I would like to welcome our new Treasurer, **Samuel Armato**, and assure him that the AAPM finances are strong and are handled well by capable AAPM Headquarters staff. ■

INFORMATION FROM HQ

EXECUTIVE DIRECTOR'S REPORT Angela R. Keyser | AAPM

Lisa Rose Sullivan to retire after 28 years of service

It is with a sense of disbelief and quite a bit of emotion that I begin this article, a tribute to my colleague and friend of 28 years, Lisa Rose Sullivan, on the momentous occasion of her retirement at the end of 2021. For those who don't know the history, AAPM relocated from New York to College Park, MD in 1993 and, in doing so, had a complete turnover in staff. Sal Trofi, my mentor, was hired as Executive Director, and I was hired as the Director of Meetings and Programs. Sal included me in the interview process for the "Projects Coordinator" position, and we were thrilled and relieved to meet with Miss Lisa Rose and quickly invited her to join the team. I say relieved because Lisa at least knew what an ABSTRACT was. You see, Sal and I were leaving an engineering organization, and I really did not understand "abstracts", but I already understood that they were significant. Lisa and I both began our AAPM journey on November 1, 1993. There were five members of the AAPM HQ team at that time. Lisa was promoted to Director of Meetings and Programs back in 2005, and the team continues to thrive under her leadership. Over the years, I have come to rely on Lisa's input and sage advice. We've talked through many a challenge and then rolled up our sleeves to work side-by-side to get the job done! There are so many "AAPM wins" that I attribute in large part to Lisa's leadership and dedication. She was instrumental in fostering relationships with AAPM's corporate partners and worked alongside

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Staff News

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

The AAPM HQ will be closed Thursday, November 25–Friday, November 26, Friday, December 24, and Friday, December 31. I wish you and your loved ones all the joys of the season and happiness throughout the coming year.

EXECUTIVE DIRECTOR'S REPORT, Cont.








EXECUTIVE DIRECTOR'S REPORT, Cont.






many volunteers to build the existing meeting exhibit program. During the years of hard copy abstracts, Lisa was the mastermind behind the scenes, supporting the hard-working program directors and reviewers, organizing the MANY HARD COPIES of each abstract that were required, and sending them out to the many AAPM reviewers. Fun fact: for seven years in a row, the Maryland area was snowed in on the first Friday in February, otherwise known as "Abstract Friday" by your HQ team! Lisa never let these "obstacles" ruffle her southern charm and poise. She has been the calm to my storm on more occasions than I care to admit. Lisa played a pivotal role in innumerable projects that benefited AAPM and the medical physics community: the move to electronic abstracts, the implementation of the Virtual Library, and the Online Learning program, helping to work out the details of AAPM's staff support to CAMPEP.

How do you celebrate such a stellar career and dedicated service to AAPM during COVID times? Well, I've not done a good job tackling that challenge. I think with some arm twisting I may be able to convince Lisa to join us during the 2022 Annual Meeting in Washington, DC so that many volunteers, corporate partners, meeting service providers and her grateful HQ team members can celebrate Lisa's extraordinary 28-year career at AAPM in appropriate fashion. Until then, I know that you join me is wishing Lisa and her husband, Andy, much joy and happiness in this next season of life. Cheers, Lisa, and thank you…well, for being you and impacting my life in so many ways, both professionally and personally. I will undoubtedly miss knowing that you are only an email…a chat….and a phone call away!

Celebrate the 9th International Day of Medical Physics on November 7

To raise awareness of the role medical physicists play in high-quality patient care, the International Organization for Medical Physics (IOMP) organizes the International Day of Medical Physics (IDMP) on November 7 each year, an important date in the history of medical physics. On that day in 1867, Marie Sklodowska-Curie, known for her pioneering research on radioactivity, was born in Poland. We celebrate the 9th IDMP on November 7, 2021. The theme of IDMP 2021 is "**Communicating the Role of Medical Physicists to the Public**." This is an excellent opportunity to promote the role of medical physicists. Visit the IOMP website for more information and promotional resources.

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 available positions.

Your Online Member Profile

This is a reminder to keep your AAPM Membership Profile information up to date by making any necessary changes. 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

I have the privilege of serving alongside a team of high-performing association management professionals. The years of service documented below are very telling; the AAPM HQ team is highly committed to serving the AAPM membership. The following AAPM team members have celebrated an AAPM anniversary in the last half of 2021. I want to thank them and acknowledge their efforts publicly.

Lisa Rose Sullivan	28 years of service
Michael Woodward	25 years of service
Farhana Khan	23 years of service
Yan-Hong Xing	15 years of service
Tammy Conquest	14 years of service
Corbi Foster	14 years of service
Jackie Ogburn	14 years of service
Abby Pardes	8 years of service
Rohan Tapiyawala	6 years of service
Nick Wingreen	6 years of service
Janelle Priestly	4 years of service
Julia Colque	2 years of service
Jordan Kehrt	2 years of service
Justin Stewart	2 years of service
Shana Donchatz	1 year of service
Elle Thomas	1 year of service
Emily Townley	1 year of service

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

RSNA 107th Scientific Assembly and Annual Meeting
November 28 – December 2, 2021
in Chicago, IL

Be Sure to Book Your Room at the AAPM Headquarters Hotel:

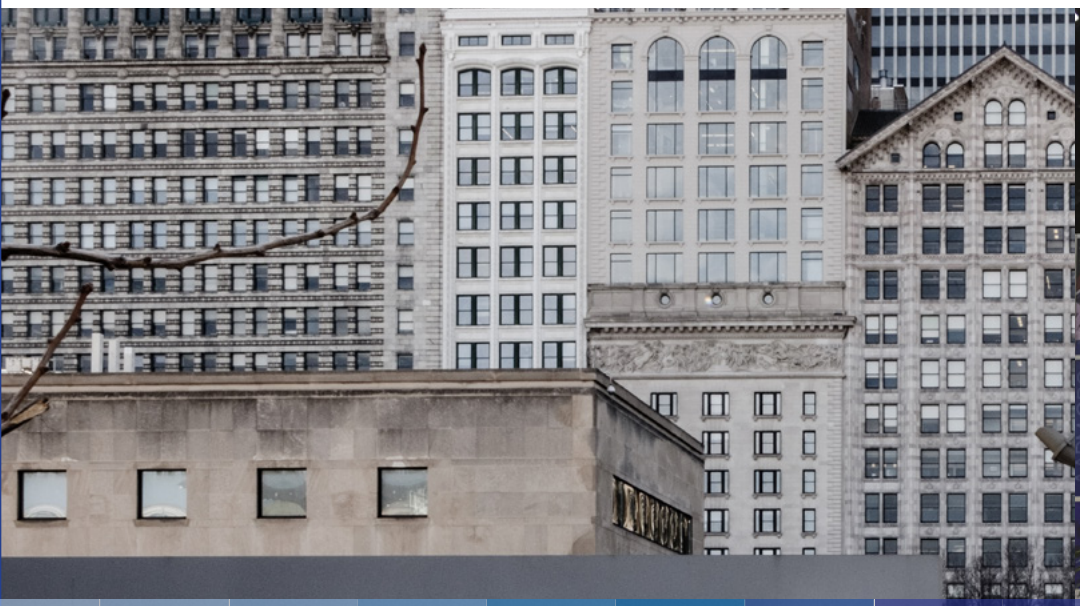
The Hyatt Regency Chicago

151 E. Wacker Drive

AAPM Meetings will be held at the Hyatt Regency Chicago

View Meeting Details:

www.aapm.org/meetings/rsna2021



CHICAGO

AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE

2022 AAPM FUNDING OPPORTUNITIES

AAPM EDUCATION & RESEARCH FUND

- **AAPM | RSNA Imaging Physics Residency Grant**

  This grant provides 50% support of a resident's salary for two imaging physics residencies.

  Application Duration:
  7/1/23 – 7/1/25

  Application Deadline: 5/3/22

- **AAPM/RSNA Doctoral and Masters Graduate Fellowships**

  Starting this year, the Graduate Fellowship program has been restructured from its original single award mechanism to four Doctoral awards (PhD or DMP) and three MS awards each of $10,000. Additionally, one of the MS and Doctoral awards will be reserved for under-represented applicants (see details below).

  Doctoral Graduate Fellowships:
  Four Doctoral awards of $10,000 each

  Two awards will be for first year Doctoral Students.

  Two awards will be for second year or higher Doctoral Students.

  - Paid to institution which in turn transfers it to student. Money can be used for tuition, professional and research development.

  MS Graduate Fellowships:
  Three MS awards of $10,000 each

  All first and second year MS students are eligible to apply.

  - Paid to institution which in turn transfers it to student. Money can be used for tuition, professional and research development.

  Application Deadline: 4/20/22

- **2022 Research Seed Funding Grant**

  Three $25,000 grants will be awarded to provide funds to develop exciting investigator-initiated concepts, which will hopefully lead to successful longer term project funding from the NIH or equivalent funding sources. Research results will be submitted for presentation at future AAPM meetings.

  Application Duration:
  8/31/22 – 8/31/23

  Application Deadline: 4/1/22

- **Summer Undergraduate Fellowship Program**

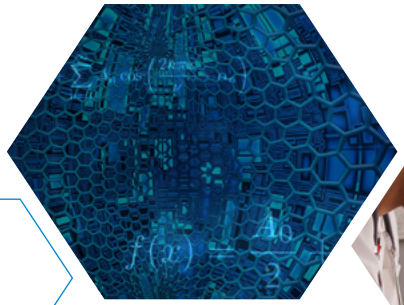
  This 10-week summer program provides opportunities for undergraduate university students to gain experience in medical physics by performing research in a medical physics laboratory or assisting with clinical service at a clinical facility. Students are selected for the program on a competitive basis with each receiving a $5,500 stipend.

  Application Deadline: 2/3/22

- **DREAM — Diversity Recruitment through Education and Mentoring Program**

  DREAM is a 10-week summer program designed to increase the number of underrepresented groups in medical physics by creating new opportunities, outreach, and mentoring geared towards diversity recruitment of undergraduate students in the field. Each DREAM fellow receives a $5,500 stipend.

  Application Deadline: 2/2/22



For more information and to apply, visit: gaf.aapm.org

TEACHING PHYSICIANS TO CARE ABOUT PHYSICS

EDUCATION COUNCIL REPORT William F. Sensakovic, PhD | Mayo Clinic Arizona

Written on behalf of: Medical Physics Education of Physicians Committee (MPEP)

Physicians fear learning physics. Physicians are disinterested in learning physics. Physicians find physics a distraction from clinical learning. Physicians don't think physics is clinically useful. Physicians want to pass their exam and never think about physics again. Physicians have a lot of ideas about the utility of learning physics and, whether they admit it or not, this creates a lot of ideas about the utility of physicists in patient care. Their views on physics, which are partially formed from experiences in High School and College, solidify during their residencies and fellowships. It is during this critical time that physics education of physicians is so important.

If all we do as educators is ensure physicians know enough material to pass an exam, then we do a disservice to patients, to ourselves, and to the physicians. It is our job as educators to inspire them. To make them realize that the physics we teach permeates clinical practice and, importantly, that such knowledge will make them better physicians. When we teach physicians well, we are helping to inspire physicians who will drive new technologies and new procedures, and who will push the boundaries of their field. Physicians who are taught well will respect the role of the physicist in clinical patient care, will respect their technical expertise, and will reach out to consult and collaborate. When we teach physics well it creates a ripple that improves patient care, inspires new ideas, and strengthens the mutual respect between physician and physicist.

Traditionally, physics education of physicians has centered around Radiology and Radiation Oncology, where a relationship has existed for decades due to the co-evolution of the fields. However, in recent years, technology previously limited to these fields has spread to more and more medical specialties. Unfortunately, the physician-physicist partnership that exists in Radiology and Radiation Oncology did not spread with the imaging equipment. Typically, other medical specialties have little or no training in physics despite being responsible for operating the same equipment and utilizing the same images. This is not good for either the patient or the physician. It is important that physicists work to break down silos and engage these other medical specialties. The onus is on our specialty to demonstrate our utility and convince physicians that it is worth their time, effort, and money to engage with and learn from us.

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EDUCATION COUNCIL REPORT, Cont.

Physicists will not successfully engage other specialties with a one-size-fits-all approach. It is important that we tailor our teaching to the learner — the same education, examples, etc. do not directly translate to other specialties or even to other positions within a specialty. When we teach without understanding the work our learners actually perform on a daily basis, we show them that we are out of touch and, frankly, that they should not bother to engage with us. We reinforce the stereotype that physics and physicists lack clinical utility.

The Medical Physics Education of Physicians Committee (MPEP) is comprised of a collection of working groups and subcommittees looking to improve physician medical physics education. While specific charges of each constituent group vary, the overall goals of the committee are consistent: 1) create guidance to ensure education is comprehensive and consistent with need, 2) improve physics understanding for patient benefit, and 3) advance medical physics through physician education. MPEP is always looking for individuals passionate about education to become members of existing groups or to suggest new constituent groups to further advance our overall goals. A list of current constituent groups and a brief description can be found below. We hope you will reach out or drop by our meetings and get involved.

- MPEP Groups:
  - AAPM-RSNA Physics Tutorial Program Subcommittee (PTPSC)
    - Coordinates the RSNA Annual Meeting Physics Tutorial Program including selection of program topics and procurement of subject matter experts to present. The subcommittee also facilitates submission of program content to Radiographics for potential publication as an AAPM-RSNA Physics Tutorial manuscript.
  - Cardiology Fellow Physics Curriculum Working Group (CFPCWG)
    - Develops, maintains, and publishes a medical physics curriculum recommended by AAPM for Cardiology Fellows.
  - Diagnostic Radiology Resident Physics Curriculum Working Group (DRRPCWG)
    - Develops, maintains, and publishes a medical physics curriculum recommended by AAPM for Radiology Residents.
  - Physics Education Task Force Subcommittee (PRSESC)
    - Develops, maintains, and oversees the RSNA/AAPM Physics Modules in coordination with RSNA.
  - Radiation Oncology Medical Physics Education Subcommittee (ROMPES)
    - Develops, maintains, and publishes a medical physics curriculum and modules recommended by AAPM for Radiation Oncology residents. ■

CONGRESS ADDRESSES RESEARCH SECURITY POLICY

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

Research security policy continues to be a concern of Congress, the Administration, and the U.S. research enterprise. On October 5, the House Science Committee held a hearing to assess current research security policy. Witnesses providing testimony included Allison Lerner (National Science Foundation Inspector General), Maria Zuber (Massachusetts Institute of Technology Vice President for Research), Candice Wright (Government Accountability Office Director, Science, Technology Assessment and Analytics), and Xiaoxing Xi (Temple University physicist). Witnesses urged lawmakers to support policy that balances guarding against improper activities while advancing our scientific enterprise and fostering collaboration that benefits us. Witnesses further urged pragmatism and clarity in disclosure requirements and enforcement proceedings imposed on those engaged in research. See opening statements and testimony here.

Shortly before the hearing, the Government Accountability Office (GAO) released a report entitled, "Federal Research: Agency Actions Needed to Address Foreign Influence" (GAO-21-105434). The report, which included highlights of previous testimony before House subcommittees on Investigations and Oversight and Research and Technology Committee on Science Space and Technology, stressed the importance of safeguarding the U.S. research enterprise from foreign influence. In addition, the GAO report reiterated previous recommendations that grant-making agencies address non-financial conflicts of interest in their COI disclosure policies and develop written procedures for addressing cases of failure to disclose required information. See the report here. ■

We will continue to monitor developments regarding research security and report updates as they occur. If you have questions or require additional information, please contact Richard J. Martin, JD, AAPM's Government Relations Program Manager, at richard@aapm.org.

AAPM SCIENCE COUNCIL ASSOCIATES MENTORSHIP PROGRAM

THE AAPM SCIENCE COUNCIL ASSOCIATES MENTORSHIP PROGRAM has been established to recognize and cultivate outstanding researchers at an early stage in their careers, with the goal of promoting a long-term commitment to science within AAPM. The program uses the process of 'shadowing' to integrate the Associates into the scientific activities of the organization. The program will include eight Associates, each assigned to shadow one member from the AAPM Science Council, Research Committee, Therapy Physics Committee, Imaging Physics Committee, Data Sciences Committee or Technology Assessment Committee. The Associate will participate in selected meetings of the Mentor's Committee and will join and contribute to one Task Group (chosen with input from the mentor). The Associate will shadow AAPM-related activities of the mentor, including committee phone calls, abstract review, Early-Career Investigator judging, committee activities at the Annual Meeting, etc.

SC Associates will participate in the program for one year. Each Associate will be reimbursed for up to $2000 to cover the costs (travel costs including flight, hotel, and meeting registration) to attend the 2022 Annual Meeting in DC and the 2023 Annual Meeting in Houston, including the pre-meeting activities associated with each Committee. The Science Council Associates will be announced, and a picture along with a short biosketch of each SC Associate posted on the AAPM website. The Science Council Associates will be announced, and a picture along with a short biosketch of each SC Associate posted on the AAPM website.

OPEN FOR APPLICATIONS:

January 2022 (Date TBD)

ELIGIBILITY CRITERIA:

- PhD candidates or early career Medical Physicists within five years of earning a doctoral degree
- Must be a member of AAPM at the time of application (any membership category) and maintain membership for the duration of the award period.

  Pending membership status not acceptable

  Prior Mentorship Program recipients are ineligible

DIRECT INQUIRIES: scamp@aapm.org

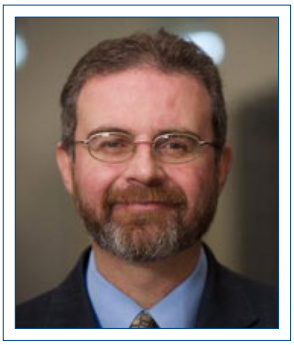
APPLICATION REQUIREMENTS:

- Cover letter outlining current contributions to Medical Physics research, describing future career plans, and reasons for interest in the Mentorship program
- The cover letter should specify the committee(s) and/or committee member(s) of interest — e.g., Science Council, Research Committee, Therapy Physics Committee, Imaging Physics Committee, or Technology Assessment Committee, and/or member(s) therein
- A diversity statement limited to one single-spaced page that describes how you will support and achieve SCAMP and AAPM's goals of equity, diversity and inclusion, especially as it relates to supporting the role of women and underrepresented groups in the field
- CV (no more than 4 pages)
- Brief letter of support from supervisor
- Please combine and submit all application documents as one PDF

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

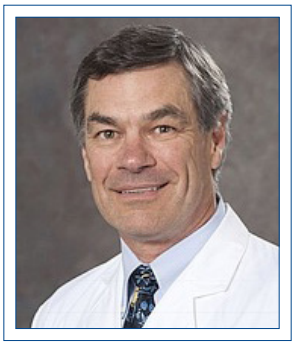
PART 3 CERTIFYING EXAM SUCCESSFULLY DELIVERED THREE TIMES IN 2021

ABR NEWS
Matthew B. Podgorsak, PhD | Roswell Park Cancer Institute
Kalpana M. Kanal, PhD | University of Washington
Robert A. Pooley, PhD | Mayo Clinic
J. Anthony Seibert, PhD | University of California at Davis
Geoffrey S. Ibbott, PhD | ABR


M. Podgorsak, ABR Trustee


K. Kanal, ABR Trustee


R. Pooley, ABR Trustee


J. A. Seibert, ABR Governor


G. Ibbott, ABR Associate Executive Director

Medical Physicists seeking board certification from the American Board of Radiology must pass three exams: Part 1 Qualifying Exam (General/Clinical), Part 2 Qualifying Exam (Subspecialty), and Part 3 Certifying Oral Exam. In 2021, there were two administrations each of the Part 1 and Part 2 exams (April and August), and three administrations of the Part 3 Oral exam. The first administration of the oral exam was given in March 2021 and served as a pilot exam, with a limited number of candidates and restricted to one specialty (TMP), to evaluate the new remote exam format. The second administration of the oral exam occurred in May 2021. This exam was offered to candidates who were not able to take the exam in 2020 due to the pandemic. The third administration of the oral exam was offered in August 2021 and was given to candidates who qualified for the certifying exam in 2021. The new remote format utilized software components developed by the

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This year, the ABR administered oral exams to 596 medical physics candidates who were eligible in 2020 and 2021. The positive experience in 2021 has enabled the ABR to implement improvements to the remote exam model. In 2022, candidates who are unable to accept their exam invitation in April will be invited to an exam opportunity in October.

As always, the ABR welcomes feedback and comments (directed to communications@theABR.org**) from candidates and diplomates to help continue to improve the final certification exam process as part of the ABR Mission: "to certify that our diplomates demonstrate the requisite knowledge, skill, and understanding of their disciplines to the benefit of patients."**

ABR as well as commercial software using the Cisco WebEx platform.

Beginning with the remote oral pilot exam in March, each administration provided valuable feedback to the ABR, allowing improvements to be made for subsequent administrations. Administration of these remote oral exams was successful and allowed 596 candidates to participate in the three oral exams in 2021. The most recent administration in August included 299 candidates (244 TMP, 52 DMP, 3 NMP). Several improvements and modifications to this exam will be discussed below.

The first two administrations (March and May) utilized both primary and secondary examiners. The role of the primary examiner was to conduct all aspects of the remote oral exam in exactly the same manner as the traditional in-person oral examiner. The role of the secondary examiner was added to provide a smooth transition in case the primary examiner experienced network connectivity issues. In this case, the secondary examiner could immediately take over the remote oral exam administration, resulting in minimal downtime for the candidate. The number of connectivity or other issues experienced by primary examiners during the March and May administrations was far less than 1%, thus a decision was made to eliminate the role of secondary examiner for the August 2021 administration. The benefit of removing secondary examiners included significantly reducing (to almost half) the number of volunteer examiners needed, as well as eliminating the time spent by the secondary examiners participating in the whole process but not actually examining candidates. The August administration nonetheless included extra examiners to serve as relief and emergency examiners, consistent with the traditional in-person oral exams.

During the recent oral exam administered in August, three candidates experienced network connectivity issues that prevented them from completing their exams during the scheduled time; in these cases the candidates were able to complete the exam during "recovery periods" at the end of the exam day. There was no case that required utilizing a replacement examiner. The remote exam software platform used for the August oral exam included improvements to the examiner user interface allowing more streamlined viewing and interaction with the windows associated with exam questions, images, scoring, and examiner comments. The candidates also experienced improvements including default control of imaging functions such as display magnification, window/level, and pointing with the cursor. Of the total 299 exams initiated, 100% were successfully completed, with a combined pass rate of 64% for all first-time candidates.

The Medical Physics Certifying Part 3 Oral Exam will continue to be delivered remotely for the foreseeable future. It is also expected in the future that all components of the remote oral exam software will be designed by and under the control of the ABR. This will allow improved integration of all delivery components (questions, images, video) as well as better control over the entire exam experience with potential reduction in issues related to downtime that may have been dependent on other vendor software. The use of the commercial software Webex will no longer be needed.

Beginning in 2022, there will be two administrations of the oral exam. Most eligible candidates will sit for the exam offered in April 2022, and there will be an additional one-day exam offered in October 2022. This second administration may include those candidates not able to sit for the April exam as well as a limited number of candidates who had been examined previously. It should be emphasized that this second one-day administration will have a limited number of seats.

As always, the ABR welcomes feedback and comments (directed to communications@theABR.org) from candidates and diplomates to help continue to improve the final certification exam process as part of the ABR Mission: "to certify that our diplomates demonstrate the requisite knowledge, skill, and understanding of their disciplines to the benefit of patients." ■

ACR ACCREDITATION & MORE: INFO FOR MEDICAL PHYSICISTS

UPDATES FROM ACR HQ Dustin A. Gress, MS | Senior Advisor for Medical Physics

Clarifications Regarding MRAP Medium Phantom

ACR received some questions following a recent email regarding the MRI Accreditation Program's addition of the new medium phantom. When the new accreditation platform (ACRedit Plus) goes live, there will be a grace period of approximately 12 months, after which the medium phantom will be required for MRAP submissions, for routine head coils that are too small to accommodate the large phantom. While the medium phantom will be required for MRAP *submissions* in these situations, it will not be required for routine technologist QC. While it is strongly recommended that technologist QC be done using a routine head coil and the appropriate phantom size, facilities should work with their medical physicist(s) or MR scientist(s) to determine which phantom will be used for routine QC.

In the June issue of ACR's Quality and Safety eNews, ACR informed newsletter recipients that the ACR MRI Accreditation Program (MRAP) has developed a medium-sized phantom. I also shared important details about the medium phantom with the medical physics community in the March-April issue of the AAPM Newsletter (see page 25). The medium phantom is an important modernization and improvement to the program. The medium phantom was developed specifically for use in modern phased array head coils and allows sites to acquire phantom images for accreditation and for quality control (QC) with the same coil that is used to acquire most clinical brain images. For accreditation and reaccreditation submissions, sites will be required to use the largest phantom that fits inside the head coil.

As many of you now know, ACR is in the final stages of developing a new accreditation database and customer portal called ACRedit Plus and the MRAP medium phantom option will be available once the new portal is live. In order to accommodate facility budget cycles, ACR will allow a one-year grace period from the release of ACRedit Plus for facilities to purchase the medium phantom and implement the appropriate changes to acquire phantom images using a head coil that is routinely used for clinical brain imaging on the scanner. More details about the grace period and required QC program changes can be found here. Inquiries regarding medium phantom availability and pricing should be directed to the phantom manufacturer, JM Specialty Parts Inc. Click here for phantom order information and manufacturer contact information.

For information regarding program changes, please visit the MR accreditation webpage.

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In each issue of this Newsletter, I will present information of particular importance or relevance for medical physicists. You may also check out the ACR's accreditation web site portal **for more accreditation information and QC forms. A big THANK YOU to all of the other staff that keep ACR programs running and assist with creating the content in this column.**

ACR recognizes the value of engaging our younger and incoming generations of medical physicists. Applications for the Medical Physics Graduate Student Scholarship **are due December 11. The** Morin Fellowship **(for medical physics residents and fellows) application period will open soon. We look forward to again receiving applications from excellent candidates for both awards.**

Upcoming Changes to ACRedit Website

Likely the most critical change in ACRedit Plus for medical physicists is that sharing of login information will no longer be possible because ACRedit Plus will leverage multifactor authentication (MFA) through Okta. However, there will be upgraded permissions features to ensure that necessary personnel can perform the various tasks required throughout the accreditation process. Facility personnel will be able to assign permissions to external personnel, such as a medical physicist, and the medical physicist will be able to remotely, securely, and legitimately log into ACRedit Plus to conduct their pieces of the accreditation process. The permissions can then be assigned back to facility personnel. Each person will initially need to configure their login credentials and MFA, but this is unlikely to be your first time undertaking such a process for data security.

Importantly, there will only be allowed one online user at a time for any given modality. For example, if the CT technologist at 123 Main Street transfers the online account to an external medical physicist, the technologist will no longer have access to the account until the physicist assigns permissions back to them. Individuals will be able to have multiple modalities assigned to their account at one time, so it should not be a problem to provide physics services to more than one location or modality at a time. We appreciate in advance your patience while everyone becomes familiar with the new process for accessing ACRedit Plus.

Investigating Helical Acquisition of CTDI Measurements

Leon et al published in 2020 a paper demonstrating the feasibility of using a helical acquisition technique for measuring CTDI during medical physics annual surveys. I have partnered with those researchers and other interested colleagues to investigate the generalizability of their proposed measurement method. In other words, their results indicate that the helical measurement method can work, and we are now investigating whether the helical method can reliably work for everyone.

We encourage all our colleagues who practice in CT to add a handful of extra measurements to their CT testing routine and contribute data to the study. The more data we can collect for analysis, the more we will all learn from the results! You can download the Excel template with instructions here, and you can drag & drop your completed Excel templates at the study landing page.

When you submit data, you'll need to attest that your dosimetry equipment has been calibrated within 24 months of your measurements, and that you are not submitting PHI, facility information, or CT device identifiers.

Do You Have Ideas for Measuring Quality?

ACR's Measurement Strategy Group is soliciting suggestions for measuring quality in radiology. If you have an idea for measuring quality, whether it's a high-level idea or a detailed process that is already operationalized, we want to hear about it. ACR supports its physician members in their required participation in CMS's Merit-based Incentive Payment System (MIPS), and I think many of you have ideas about useful clinical quality measures for modern radiology practice. The landing page is here, the fillable pdf evidence source form is here, and the webform for submitting your quality measure concept is here. ■

AAPM COMMENTS ON 2022 MEDICARE PROPOSED RULES

HEALTH POLICY AND ECONOMIC ISSUES REPORT
Wendy Smith Fuss, MPH | AAPM Consultant | Health Policy Solutions

AAPM recently submitted comments to the Centers for Medicare and Medicaid Services (CMS) regarding the 2022 Medicare proposed rules for payments to hospital outpatient departments, ambulatory surgical centers, freestanding cancer centers, physicians and the Radiation Oncology Alternative Payment Model.

CMS will address public comments in the 2022 final rules, which will be published on November 1. AAPM's complete comment letters to CMS can be found here.

Hospital Outpatient Prospective Payment System (HOPPS)

AAPM provided written comments to CMS regarding the 2022 Hospital Outpatient Prospective Payment System proposed rule, which provides facility payments to hospital outpatient departments.

CPT 76145:

CMS proposes to maintain assignment of the medical physics code 76145 *Medical physics dose evaluation for radiation exposure that exceeds institutional review threshold, including report to APC 5611 Level 1 Therapeutic Radiation Treatment Preparation* with a 2022 proposed payment of $130.19. APC 5611 has nine, clinically similar, radiation oncology therapeutic radiation treatment codes. AAPM advised CMS that CPT 76145 is not a radiation oncology code used in the treatment of cancer patients.

AAPM recommends that CPT 76145 be reassigned to APC 5724 *Level 4 Diagnostic Tests and Related Services*. APC 5724 currently has 17 services, with a range of clinical variability (urology, neurology, internal medicine, radiology, dermatology, allergy, etc.). The proposed 2022 payment for APC 5724 is $943.96. The resource consumption in APC 5724 more closely aligns with the resources used to perform CPT 76145.

Alternatively, AAPM recommends that CMS reassign CPT 76145 to New Technology APC 1510, which more closely aligns reimbursement to the current 2021 Medicare Physician Fee Schedule payment rate of $848.25. Assignment to New Technology APC 1510 effective January 1, 2022 would allow the Agency time to collect and analyze outpatient claims data for more appropriate assignment to a clinical APC in the future.

Comprehensive APCs:

CMS proposes to continue the existing Comprehensive APC (C-APC) payment methodology for single-session cranial stereotactic radiosurgery, intraoperative radiation therapy (IORT) and for surgical brachytherapy device insertion procedures. CMS defines a C-APC as a classification for the provision

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For additional information including Medicare rule summaries, 2022 proposed payments and impacts visit the AAPM website.

of a primary service and all adjunctive services and supplies provided to support the delivery of the primary service. Under this policy, CMS calculates a single payment for the entire outpatient encounter, defined by a single claim, regardless of the date of service span.

Since the inception of the C-APC methodology, AAPM has commented on concerns around the claims data used for ratesetting due to significant variations in clinical practice and billing patterns across the hospitals that submit these claims. The episode of care for cancer is complex and the treatment time varies significantly not only based on the type of cancer but on the treatment modality. AAPM remains concerned that the rates associated with C-APCs do not accurately reflect all of the services and costs associated with the primary procedure. Given the complexity of coding, serial billing for cancer care, and potentially different sites of service for the initial surgical device insertion and subsequent treatment delivery or other supportive services, AAPM continues to oppose the current C-APC payment methodology for cancer care. AAPM continues to recommend an alternative payment policy to pay for surgical brachytherapy device insertion codes under the C-APC payment methodology but exclude and make separate payment for designated preparation and planning services in addition to the bundled C-APC payment.

Low Volume APC Proposal:

CMS proposes to designate clinical APCs, brachytherapy APCs, and New Technology APCs with fewer than 100 single claims that can be used for ratesetting purposes as Low Volume APCs. AAPM agrees with CMS that low utilization of services can lead to wide variation in payment rates from year to year, especially as it relates to brachytherapy sources. Under the proposed Low Volume APC policy, the payment rates for these APCs would be set at the highest amount among the geometric mean, median, or arithmetic mean, calculated using up to four years of data. AAPM supports the proposed Low Volume APC policy effective January 1, 2022.

Physician Fee Schedule (PFS)

AAPM also provided written comments to CMS regarding the 2022 Physician Fee Schedule proposed rule, which impacts payments to physicians and freestanding cancer centers.

Due to a significant reduction to the conversion factor and the proposed clinical labor pricing update, many radiation oncology procedures will experience payment decreases of 10 to 20 percent or more in 2022. The impact to Medical Physics Consultation codes CPT 77336 and 77370 is minus 10.2 percent and minus 8.9 percent, respectively. AAPM cited concerns regarding excessive payment reductions proposed for 2022, especially as many providers continue to experience economic hardships related to the COVID-19 public health emergency.

CMS is proposing to update the clinical labor pricing for 2022, in conjunction with the final year of the medical equipment and supply pricing update. Clinical labor rates were last updated in 2002 using Bureau of Labor Statistics (BLS) data and other supplementary data sources.

AAPM recommends that CMS utilize the 2020 Professional Survey Report on salary data to determine the updated clinical labor rate per minute for a Qualified Medical Physicist, which we estimate at $2.25 per minute. In addition, AAPM recommends that CMS implement a 4-year transition for updated clinical labor rates beginning January 1, 2023.

Radiation Oncology Alternative Payment Model (RO Model)

CMS proposes the creation and testing of a new alternative payment model for radiation oncology (RO Model) that tests whether prospective, site-neutral, modality agnostic, episode-based payments to physician group practices, hospital outpatient departments and freestanding radiation therapy centers would reduce Medicare expenditures while preserving or enhancing the quality of care for Medicare beneficiaries beginning January 1, 2022.

While AAPM supports CMS' efforts to establish an alternative payment methodology for radiation oncology, we have grave concerns regarding the payment and pricing methodology, undue administrative and financial burden, and the potential negative impact on Medicare beneficiary access to safe and high-quality cancer care. Severe consequences include limiting access to care by closure of radiation oncology facilities or reduction of services, which, in particular will especially impact underserved populations and initiatives seeking to address healthcare disparities.

HEALTH POLICY AND ECONOMIC ISSUES REPORT, Cont.

AAPM advised that reducing payment will not improve quality but jeopardize access to safe and effective radiation treatments by putting too much financial strain on radiation oncology practices that have no choice but to participate. With virtually no positive incentives, payment cuts of this magnitude to required RO Model Participants are unjustified. The currently proposed RO Model does not meet the intent of the MACRA legislation nor move toward value-based payments.

AAPM commented that the proposed RO Model is complicated and requires changes to coding, claims generation, claims processing, participant-specific modifiers and adjustments, withhold calculations, payment programming, and software updates for electronic health records (EHRs). Operationalizing the RO Model on both the Medicare contractor side and mandatory RO Model Participant side will be extremely challenging.

AAPM supports a radiation oncology alternative payment model that provides fair and predictable payment to protect Medicare beneficiary access to cancer care and incentivizes the appropriate use of cancer treatments that result in the highest quality of care and best patient outcomes.

AAPM provided the following comments and recommendation:

- Reduce the Radiation Oncology Model discount factors to 3 percent for both the Professional Component (PC) and Technical Component (TC) payment.
- If CMS finalizes the proposal to remove brachytherapy services from the Radiation Oncology Model, it should also remove the waiver that allows continued separate payment for brachytherapy sources.
- Regarding undue administrative and financial burden associated with submitted encounter claims data and additional pay-for-reporting requirements, AAPM recommends voluntary compliance of RO Model monitoring requirements until CMS provides additional guidance regarding how the Agency expects practices to collect and report on this data, EHR vendors have had time to develop the necessary software for the collection of additional data and RO Model Participants have been able to upgrade their systems.
- Remove the waiver for MACRA-required Technical Component Payments in the calculation of the APM incentive payment and allow for the 5 percent bonus payment to be applied to the technical payments of freestanding radiation therapy centers.
- Opposes the inclusion of any new physician group practices or hospital outpatient departments, including Pennsylvania Rural Health Model (PARHM) eligible groups, in the RO Model.
- Supports the proposed RO Model Extreme and Uncontrollable Circumstances policy. ■

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SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

FOSTERING DIVERSITY AND INCLUSION THROUGH COURAGEOUS CONVERSATIONS

Alison Roth, PhD | Barrow Neurological Institute

We know that it is important for the health of a work environment to have honest and open conversations, but navigating discussions about race, gender, sexual orientation, and a myriad of other topics can be difficult. Part of the reason these conversations are so difficult is because we rarely get to practice before we find ourselves in the midst of them. The purpose of our AAPM Annual Meeting 2021 After-Hours session, *Fostering Diversity and Inclusion through Courageous Conversations*, was to practice these conversations.

Three scenarios were provided for participants: 1. A pregnant brachytherapy physicist is concerned about the potential risk for high dose to her fetus and is requesting to switch modalities for the duration of the pregnancy with her leader. 2. An interviewer is impressed by a petite diagnostic physics candidate but is concerned about their ability to carry the heavy QA equipment when they travel to different sites and comfort/willingness to travel to different sites. 3. A black graduate student's advisor wants to talk to the student about race and how they're doing in the program given the recent police shootings and protests. All these scenarios are meant to represent real conversations that medical physicists need to have.

As these conversations can be unintentionally harmful, we strived to provide material that would not put undue burden on our minoritized participants by recording videos of the scenarios acted out. The recordings were meant to get some things "right" and some things "wrong" to represent how difficult these conversations are in practice. General and scenario-specific discussion topics were provided to help participants dive into the scenarios in small groups.

Participants found that the session organization kept discussion on topic but was loose enough for conversations to flow naturally. Improvements were also recommended including releasing more scenarios, providing a follow up to scenarios with better outcomes, and how to follow up if a conversation does not go according to plan (how to repair damage and restore trust). As these materials develop further, our team plans to release them as a package including discussion prompts so that individual sites can recreate this event.

Another project that grew from discussions was the creation of a community of medical physicists to discuss equity, diversity, and inclusion

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A new Discord server has been created to discuss all things Equity, Diversity, and Inclusion including sharing resources and building a community of medical physicists. To join, please e-mail Alison **for a link.**

(EDI) findings and initiatives. This has led to the creation of a Discord channel which is open to all medical physicists interested in learning more about and discussing EDI in medical physics. Please reach out if you are interested in joining us!

Finally, I want to thank all the people involved in the writing and acting of the scenarios and everyone who helped organize the session including: **Ghada Aldosary**, **Ashley Cetnar**, **Jeremy Hoisak**, **Amirh Johnson**, **Titania Juang**, **Nadia Octave**, **Jennifer Pursley**, and **Kathleen Surry**. Also, a big thanks to the AAPM 2021 organizers for making it possible for us to share this with the larger AAPM family!

I would also like to encourage you to view the stellar sessions at AAPM 2021 focused on EDI topics including, "An Introduction to LGBTQIA+ Issues in Radiation Oncology from the Medical Physicist's Perspective," "Overview of Equity, Diversity, and Inclusion (EDI) Efforts in AAPM," and "Picture a Scientist: Toward Gender Equity," and "Building and Mentoring Diverse Teams to Achieve Equity, Diversity, and Inclusion." Particularly notable about the EDI sessions this year was the focus on how to **take action** to make medical physics more equitable, diverse, and inclusive. ■

SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

BOOK REVIEW: *WHY SO SLOW? THE ADVANCEMENT OF WOMEN*, BY VIRGINIA VALIAN (1999)

Jennifer Pursley, PhD | Massachusetts General Hospital

First published over 20 years ago, *Why So Slow?* by Virginia Valian seems just as relevant today. Across many fields, including science, the number of women has increased in entry and mid-level positions but there is still an absence of women in leadership roles. This is true even in medical physics and AAPM [1]. Dr. Valian, now a Distinguished Professor of Psychology at Hunter College, directs both the Language Acquisition Research Center, which studies how children acquire their first language, and the Gender Equity Project, which investigates why so few women are in positions of power and prestige. In this book, Dr. Valian introduces the concept of schemas as an explanation for why women remain underrepresented in leadership positions.

In psychology, a schema is a mental codification of experiences into an organized way of perceiving and responding to a complex situation. Humans need schemas to make sense of the world; as one example, we have a schema for meetings; our schema tells us how to prepare, what to bring, and what to expect to happen in a meeting. If something happens that violates our schema (let's say, everyone in the meeting is asked to sing), we feel surprised and may even feel irritated because we didn't expect this. Subconsciously, we have to decide whether to update our schema (meetings include singing) or to view this as a deviation (THIS meeting included singing but meetings in general do not).

Dr. Valian makes the case that most cultures have extremely strong gender schemas, or expectations about the qualities of men and women. In most developed countries, the gender schema for women includes attributes associated with nurturing while the schema for men includes attributes associated with leadership. These schemas are deeply ingrained and mostly unconscious; one example in the book is that the first question adults often ask when meeting a baby is whether it's a boy or a girl, as they want to know whether to compliment the baby as "pretty" or "handsome." One section I found particularly interesting was the discussion on why attempts to raise children in a gender-neutral fashion fail; in short, parents fail to recognize how their own gender schemas still influence their different expectations of male and female children. Studies show that children raised with an attempt to be gender neutral share the same gender schema with

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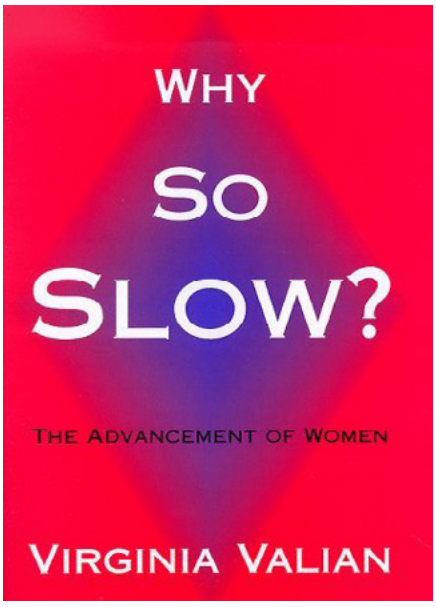
"If everyone understood explicitly what some people understand implicitly – that success comes from creating and consolidating small gains – no one would counsel women to ignore being ignored. The concept of the accumulation of advantage lets us see that the well-meaning advice often given to women – not to make a mountain out of a mole-hill – is mistaken. That advice fails to recognize that mountains are mole-hills, piled one on top of the other." *Virginia Valian, Why So Slow?*]



the same expectations of what is "masculine" and what is "feminine" as those raised without these efforts.

So, what effect do gender schemas have on the advancement of women? As in the example of the meeting, when a schema is violated, the responses can include surprise and irritation. The person is likely not consciously aware that they had certain expectations and they feel this way because their expectations were violated; instead, they blame their irritation on the person who violated their schema. Since the gender schema for women does not include leadership qualities, when a woman displays "masculine" qualities like assertiveness, it provokes a negative response in those around her. It's important to note that women and men have very similar gender schemas, so women will also respond negatively to another woman who violates the gender schema. In addition, the gender schema for women also has been shown to be associated with traits like weakness and incompetence. This underlying schema leads to unconscious bias against women in many aspects of professional life — when evaluating candidates for hire, for promotion and other opportunities, performance reviews, etc. Even though each individual incident of unconscious bias may be small, the cumulative effect leads to women not being able to keep up with their male peers.

The last chapter of the book is titled "Remedies" and suggests methods to nullify the effects of our gender schemas on women's professional advancement. First and foremost is to be aware that we all have a similar gender schema and that it prevents us from being truly impartial when evaluating women's performance. Next is to recognize that the effects are cumulative, and every missed opportunity or poor evaluation sets a woman back today and will impact the rest of her career. To reduce the effects of gender schema, some suggestions are to take more time and devote full attention when making an evaluation, as quick or distracted decisions rely more on schema; increasing accountability by letting evaluators know their decisions will be reviewed for unconscious bias; and awareness training on unconscious bias. Having leaders committed to increasing fairness is vital to making these changes effective. For women, they also need to realize that their gender schema may be affecting the way they think about or present themselves; women are much more likely to attribute their successes to luck rather than ability, which is the opposite of men, and many women may be uncomfortable speaking up or being assertive, as these qualities are seen as more masculine. There is no quick fix to equality; as Dr. Valian says at the end of her book, "What all these ways of thinking amount to is intervening in one's own psychology — understanding it and changing it." ■

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SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

PICTURE A SCIENTIST: TOWARD GENDER EQUITY IN MEDICAL PHYSICS

Kelly C. Paradis, PhD | Michigan Medicine

At the AAPM Annual Meeting this year, the Women's Professional Subcommittee hosted the interactive discussion session, **Picture a Scientist: Toward Gender Equity in Medical Physics**. This was a follow-up to an AAPM webinar earlier this year, with its name inspired by the 2020 documentary, *Picture a Scientist*, that chronicles the careers of three women scientists and their experiences with harassment and discrimination. Along with my co-facilitators, **Kristi Hendrickson** and **Jean Moran**, I presented data showing where the field stands in terms of gender equity, and concrete examples of how we can improve, as described below. As a group and in small breakout sessions, we discussed real-world experiences of discrimination shared by practicing medical physicists. Participants had the opportunity to share their own journeys and strategies for navigating experiences of harassment and discrimination.

The leadership of AAPM, including the Executive Committee, the Councils, Committees, and Task Groups, decide the future direction of medical physics. Council leadership is historically and currently heavily male-dominated, and of the 80 active Task Groups in existence at the time of the AAPM presentation, 19% of them had no female members. Task groups that were chaired by a woman had nearly double the representation of women within their membership compared to task groups chaired by men. This year's annual AAPM Review Course featured a faculty that was 91% men, and in the past 15 years, only one woman has ever taught in the therapy physics review course.

We know that male medical physicists are more than twice as likely to hold research funding compared to women.[1] One of the best ways we support early career academic physicists in obtaining sustainable long-term funding is to provide access to seed funding mechanisms. However, eligibility for our current AAPM Research Seed Funding Grant is limited to five years since obtaining a PhD. Physicists that experience interruptions to research that often occur during their early career due to childbirth and other family care responsibilities are put at a disadvantage. We should model our early-stage investigator status after the NIH definition, which is 10 years past the conclusion of clinical training and has a formal path for extensions due to interruptions in research time.

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Also related to early career medical physicists, we know from a study by Hendrickson et al.[2] that prospective medical physics residents are commonly asked illegal questions about family planning during their interviews. The number of women asked these questions is approximately double the number of men. From the study, "female respondents overwhelmingly reported general discomfort and males indicated ambivalence" about these questions. Trainees just entering the field already know that their gender will impact how they are viewed when they answer these questions.

The only way to move the needle regarding gender equity in the field is to promote equity, diversity, and inclusion (EDI) from all angles, at all levels. We are failing. EDI efforts are often invisible, done for "free", left up to women and other historically excluded groups to drive, poorly resourced, and not considered for career promotion. Compounding these issues is that EDI-related studies in medical physics are difficult to publish, further reducing visibility. Medical Physics, our highest impact journal, does not publish original research related to our workforce.

The President shall preside at all general meetings of the Corporation. He shall call to the attention of the Corporation any matter which affects its interests. He shall take action in accordance with the recommendations of the Board to whom he shall report at each meeting of the Board. With concurrence of the Board, he shall appoint members to represent the Corporation to other groups or societies as seem desirable. He shall be a voting member of the Executive Committee, Strategic Planning Committee, and may retain voting membership of any other committee on which he was serving when he transitioned to the role of President. He shall be a non-voting member of all other committees except the Nominating Committee. At the end of his term of office the President shall succeed to the office of Chairman of the Board.

Finally, while it is certain that the rules governing the parliamentary procedure of our professional organization are nuanced and complex, the current language of the AAPM By-Laws is an unacceptable condition that must be addressed emergently (see inset). There is no justification for not correcting this with as much haste as reasonably achievable.

Together, our profession can continue to make progress toward gender equity by remedying the specific issues raised here. We should make our field a true exemplar for inclusion and equal opportunity for all. ■

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SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

THE ICEBERG MODEL OF SEXUAL HARASSMENT

Kristi Hendrickson, PhD | University of Washington Medical Center

Select summary from *Sexual Harassment of Women from The National Academies of Sciences Engineering Medicine*[1]

Participation of women in science, engineering, and the biomedical sciences at the undergraduate and graduate levels in the US is increasing. That's the good news. However, progress in closing the gender gap is stymied by the persistence of sexual harassment and its adverse impact on women's experiences during their education, training, and careers.

Sexual harassment undermines women's professional and educational attainment and mental and physical health. When it occurs in our work and education environments, it also adversely affects bystanders, coworkers, workgroups, organizations, and the diversity of our science workforce.

Research has found several adverse professional outcomes from experiences with sexual harassment.[1]

- Declines in job satisfaction
- Withdrawal from their organization (ranging from distancing from work — either physically or mentally — without quitting to actually leaving the job)
- Declines in organizational commitment
- Increases in job stress
- Declines in productivity or performance

In the education and training environment, the negative outcomes are similar in flavor.

- Declines in motivation to attend classes
- Dropping classes
- Paying less attention in class
- Lower grades
- Changing advisors
- Changing majors
- Transferring to another institution
- Dropping out

I have often heard the assertion that sexual harassment in medical physics is rare or not a significant problem. This assertion stems in part from the lack of recognition that sexual harassment includes gender harassment. There are three categories of sexually harassing behavior:

1. Gender harassment (verbal and nonverbal behaviors that convey hostility, objectification, exclusion, or second-class status about

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"Much of the time, sexual harassment assumes a form that has little or nothing to do with sexuality but everything to do with gender."

—Vicki Schultz, Ford Foundation Professor of Law and Social Sciences at Yale Law School

members of one gender)

2. Unwanted sexual attention (verbal or physical unwelcome sexual advances, which can include assault)
3. Sexual coercion (when favorable professional or educational treatment is conditioned on sexual activity)

Harassing behavior can be either direct (targeted at an individual) or ambient (general level of sexual harassment in the environment). Both in law and the lay public, the dominant understanding of sexual harassment overemphasizes two forms of sexual harassment (sexual coercion and unwanted sexual attention) while downplaying the third type — gender harassment — which is actually the most common.[2] The iceberg model of sexual harassment (Figure 1) illustrates both of these ideas: the first two types are visible while being less common, and the third type is below the water's surface and much more pervasive.

Sexual harassment becomes illegal when it creates a hostile environment (gender harassment or unwanted sexual attention that is severe or pervasive enough to alter the conditions of employ-ment, interfere with work performance) or interferes with educational attainment or when it is considered quid pro quo sexual harassment; sexual assault is also illegal. **All forms of sexual harassment lead to the adverse professional outcomes and negative education outcomes listed above.**

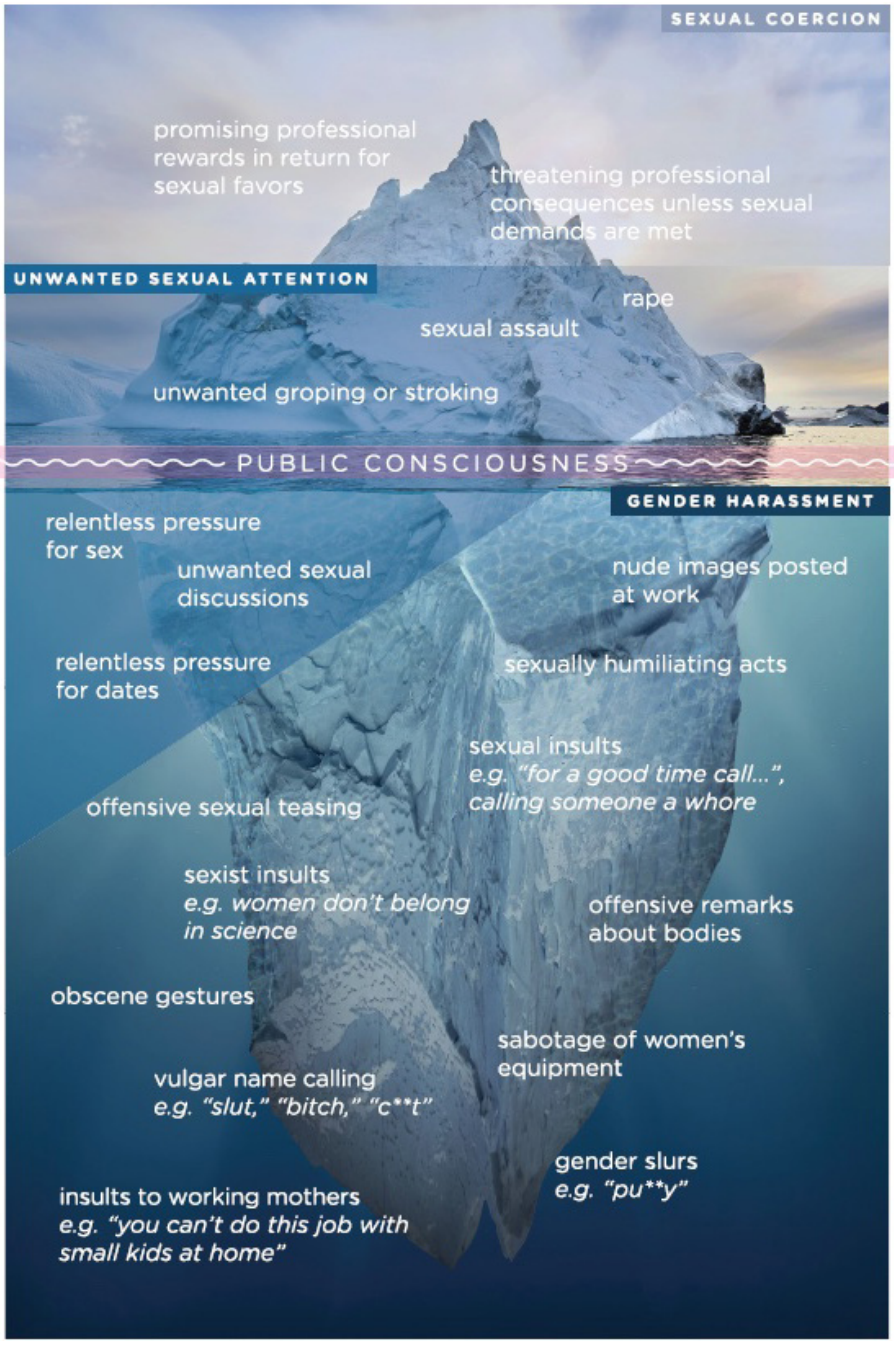

Figure 1. The iceberg model of sexual harassment. Sexual coercion and unwanted sexual attention are well known types of sexual harassment and less common. The most common type of sexual harassment is gender harassment; this type happens with greater frequency and is not always recognized as a form of sexual harassment. The cumulative effect of gender harassment is similarly detrimental to the careers of women.[1]

In the 2021 AAPM Equity, Diversity, and Inclusion Climate Survey,[3] almost half (48%) of all female respondents reported experiencing exclusion, intimidation, or hostility in the workplace. Two out of three women reported experiencing microaggressions. Twenty percent of female survey respondents reported being aware of sexual harassment in the workplace, and 12% reported personally experiencing it. In the survey, sexual harassment was defined as referring to unwelcome sexual advances, requests for sexual favors, and other verbal or physical actions of a sexual or sexist nature. The intention was to include gender harassment, but it is unknown if survey respondents conceptualized the full iceberg when marking their responses.

What can you do?

Do not become paralyzed by the fear of saying or doing the wrong thing. Educate yourself on examples of gender harassment so that you do not unintentionally contribute to the problem. If you say something that you later learn was potentially offensive, check-in with the other person and genuinely apologize without being defensive. Be an active bystander (upstander) who calls out unacceptable comments and behaviors or talk to the person soon after witnessing harassment. *When I heard you say…, it sounded offensive. I'm curious what you meant by that?*

What can AAPM do?

Professional societies can be a powerful driver of change because of their role in education, training, codifying, and reinforcing cultural expectations for behaviors within the community and field. Provide support and guidance for members who have been targets of sexual harassment and work within your volunteer capacity to promote a professional culture of civility and respect. ■

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1. *National Academies of Sciences, Engineering, and Medicine. 2018.* Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine. *Washington, DC: The National Academies Press.* https://doi.org/10.17226/24994.
2. *Survey studies have found that gender harassment is most common, using validated instruments such as the most widely used Sexual Experiences Questionnaire (SEQ) (Fitzgerald et al., 1988; Fitzgerald, Magley, Drasgow, & Waldo, 1999).*
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SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

FEATURED PHYSICISTS: THREE OUTSTANDING WOMEN AND THEIR NON-TRADITIONAL PATHS TO MEDICAL PHYSICS

Irena Dragojevic, PhD | University of California, San Diego

Medical physics as a field is rich with people with a variety of scientific back-grounds.

The wealth of unique experiences makes medical physics an exciting science melting pot. Here we talk to three women who changed their careers to medical physics and their reasons why.

Kelly Paradis:

Why did you become a scientist?

I had an outstanding physics teacher in high school, Steven Brehmer. We did all kinds of hands-on experiments, built soda bottle rockets, motors, custom circuits… We competed in the Minnesota Science Olympiad. Mr. Brehmer inspired a love of science and discovery in his students. I'm forever grateful to him for helping me find a career I can be passionate about. I still remember that I thought the motor I built for class was so cool. It was MASSIVE, but in the class competition I lost to a tiny motor the size of a bumble bee. Still salty about that after more than 20 years!

What did you do before entering the medical physics field?

I was an atomic physicist. I got my PhD from University of Michigan before deciding on medical physics. During residency interviews, I talked about my thesis "Rydberg Atoms for Quantum Information" and realized I was the only one who didn't talk about a medical physics topic!

Was there a turning point, when you were like, this is the career for me?

While I loved atomic physics, I really wanted to get out of the basement and work with other people. I explored other areas of interest such as finance and computer science. Then several members of my graduate lab went on to work in medical physics and that is how I heard about it. Learning about it made me realize that it was what I was looking for – science with a greater sense of purpose behind it.

Do you miss anything from your previous career?

I miss going in everyday and doing hands-on experiments, tweaking lasers, playing with optics – it was like a playground. I miss the anticipation of seeing whether the experiment and setup I worked on for months was actually going to work. And if it does, it creates so much excitement and a deep sense of accomplishment. As a graduate student, I would sometimes

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Laura Cerviño: The path to medical physics from non-medical physics backgrounds brings so much knowledge to our field that closing it shuts down a source of rapid adaptation of new techniques and an ocean of knowledge readily available.

spend over 36 hours straight on an experiment. And working with others in those intense situations created deep team bonding experiences too. That's how I met my husband!

What aspect of your medical physics career do you find most rewarding?

I am an Associate Chair of Equity and Wellness in my department. I studied to be a scientist, but I realized I like helping people who are struggling and giving them the resources that they need. Letting people talk about their feelings and struggles outside of work and being able to ensure flexible schedules are all crucial for an effective and positive workplace. It was very challenging for me to return to work after my parental leave. However, I am fortunate to have a very supportive partner and a very flexible and accommodating workplace that allowed me to come back to work. I feel very passionate about everyone having those same opportunities. My department is very supportive of the initiative and this work has allowed me to get connected to people outside of university and expand my network.

Grace Gwe-Ya Kim:

Why did you become a scientist?

It was a family business! My mom is a chemist, and so are two of my brothers, so it seemed natural to me to pursue chemistry as well. Growing up in Korea, there were definitely some cultural aspects to it: if you did well in school, it was expected that you will either become a scientist or a lawyer, and science always made more sense to me.

How did you end up in medical physics?

I got my PhD in Physical Chemistry with my thesis being on Chemical Vapor Deposition (CVD) Diamond Detectors. After my PhD, I worked in a Korean equivalent of the FDA. I worked in a calibration laboratory, and naturally crossed paths with some medical physicists. I decided to do a postdoc at Stanford in the Radiation Oncology department with no intention of becoming a medical physicist, but to get better at my job – to learn about patient dosimetry and to understand all the different clinical applications of detectors I was in charge of calibrating. But once I learned more about medical physics, I fell in love with it, and here I am!

Do you miss anything about your previous career?

I really miss the smell of science labs! I also miss the non-ambiguity of my previous work. In a calibration laboratory it is clear what needs to be done and what steps to take. There is certainty about outcomes which is reassuring. Also, as a government official I had influence on policy. I definitely appreciate the impact I have on patients and my department, but it is on a different scale and of different type.

What do you find most rewarding?

I like how it is easy to make a connection between the work I do and the impact it has on patients and my colleagues. The day-to-day job satisfaction is great! I also find the service I do for AAPM extremely rewarding. It allows me to connect with so many different people and make a difference in our field in general. It also allows me to use the expertise from my previous career (e.g. calibration and dosimetry) and apply it in my work in various committees and working groups.

Laura Cerviño:

Why did you decide to study science and engineering?

It was fun and did not seem arduous. It just felt like a natural choice. I went for aeronautical engineering, which was very appealing to me. Who doesn't want to be an astronaut? I specialized in propulsion and space. I was so intrigued by anything space related.

What, if anything, do you miss from your previous career?

I still regard aeronautical engineering as a beautiful field. I was on the academic side, working on fluid mechanics, noise, and optimization. Our research was long term and not applied, so there was plenty of time to ponder any research problem. Even though I appreciate the applicability and time sensitivity of the projects we work on in medical physics, I miss feeling that you have time to study anything about your subject without the clinical rush. I also miss having more equations in the problems we are solving! The problem solving, mathematical and physics background, programming, and technical training are the things that I brought with me and still find very useful in my medical physics career.

What are your thoughts on closing the path to medical physics from non-medical physics backgrounds?

The path to medical physics from non-medical physics backgrounds brings so much knowledge to our field that closing it shuts down a source of rapid adaptation of new techniques and an ocean of knowledge readily available. Of course, there are some other paths available, like going the postdoc or certificate route, but it requires a lot more time and resources, which is discouraging to many young scientists. It also prevents exploration of new career paths. After getting an engineering faculty position, I wanted a change and to do biomedical and bioengineering research. I ended up doing a postdoc with an imaging medical physicist and later a therapy medical physicist, **Steve Jiang**. It was serendipitous that I ended up in medical physics, and I feel like that would have been much harder now when so many alternative paths to medical physics are closed.

Was it what you expect it to be? Any surprises?

I did not have any big surprises as far as the science part was concerned, as I first learned through my experience with research and then clinic afterwards. However, I never expected to have to interact with patients, so that was a welcome surprise. Knowing that we are helping people with cancer, that they have hope and trust and appreciate what we do for their treatment are all such rewarding aspects of medical physics that you rarely get in basic research. And we do all that with the technology and workflows that we ourselves help develop, which is pretty cool!

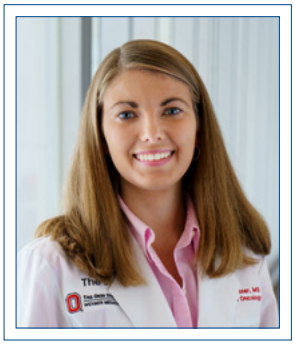
If you weren't a medical physicist, what do you think you'd be doing today?

I would probably have continued on the path to becoming a professor of biomedical engineering. Or maybe I'd end up in JPL or working with Elon at SpaceX! ■

SPECIAL INTEREST FEATURE:
Women's Professional Subcommittee

ACCELERATING WOMEN AND MINORITY PHYSICISTS SPECIALTY MEETING REVIEW

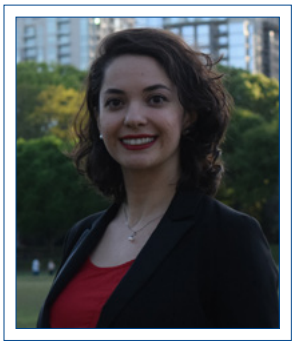
Ashley Cetnar, PhD | The Ohio State University - James Cancer/Hospital
Laura Cerviño, PhD | Memorial Sloan Kettering Cancer Center
Emily Hirata, PhD | University of California, San Francisco
Sharareh (Sherry) Koufigar, MS | Piedmont Hospital
Jennifer Pursley, PhD | Massachusetts General Hospital



A. Cetnar

L. Cerviño

E. Hirata



S. Koufigar

J. Pursley

Written on behalf of the Women's Professional Subcommittee.

The Accelerating Women and Minority Physicists Virtual Specialty Meeting was hosted live on August 19–20, 2021. This event was open to all physicists with the primary focus on developing leadership skills and tools necessary for women and underrepresented minority physicists to grow and thrive in our profession, which aligns with the AAPM strategic goal to champion equity, diversity, and inclusion. More than 150 participants from seven countries were a part of the two-day meeting.

During the workshop, invited speakers shared methods, strategies, and experiences in areas of leadership and professionalism to help accelerate the participants' advancement in their careers. Attendees were provided a workbook for reflection and exploration of how to apply the tools and strategies in meaningful

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Jen Pursley: I've attended several women in medicine leadership conferences through my institution, so I was hesitant to register for this workshop because I hadn't gotten much out of those previous conferences. After seeing a preview of two of the talks during the WPSC After-Hours event at the Annual Meeting and realizing there was time allocated for small group discussion after each session, I changed my mind because I thought this could be different and better than any of the leadership conferences I had attended previously.

and constructive ways. Participants were assigned to small groups for discussions after each individual session to reflect, network, and connect throughout the meeting.

This newsletter highlights the experiences of AAPM members **Sharareh (Sherry) Koufigar**, **Jennifer Pursley**, and **Laura Cerviño**, who offer their unique perspectives as attendee, small group facilitator, and conference co-director.

Why did you sign up for the meeting?

Sharareh (Sherry) Koufigar: As a female who grew up in Iran, I believed that this meeting would provide valuable career insights geared towards those with unconventional backgrounds. I also attended an AAPM after-hours event hosted by the Women's Professional Subcommittee, which reinforced my desire to attend.

Jennifer Pursley: I've attended several women in medicine leadership conferences through my institution, so I was hesitant to register for this workshop because I hadn't gotten much out of those previous conferences. After seeing a preview of two of the talks during the WPSC After-Hours event at the Annual Meeting and realizing there was time allocated for small group discussion after each session, I changed my mind because I thought this could be different and better than any of the leadership conferences I had attended previously.

Laura Cerviño: We have been planning for this meeting for a few years now, and I was very excited to finally see it coming together. For any of us who feel that our job has some leadership component (which is most of us if not all) this is a great opportunity to learn about things that we can do to learn about our goals and leadership style and about techniques that will help us progress in our leadership career. Many of the topics presented can be applied to our daily lives outside of work too. I have attended some leadership sessions for minorities in the past, and it is always refreshing, and I always learn something new. This program was planned by and for medical physicists, so it was very tailored and connected to our specific career.

What was your favorite part of the meeting?

Sharareh (Sherry) Koufigar: I most enjoyed the small group discussions. They provided an intimate environment where participants felt safe to open up and discuss topics presented during the meeting. It was refreshing to hear frank assessments, which led to deeper and more insightful conversations. The smaller groups meant that everyone was very engaged and fully present.

Jennifer Pursley: My favorite part of the meeting was the small group discussions after each section. By keeping the same small groups for the entire workshop, we developed a stronger connection that kept me more engaged during the meeting because I really wanted to have meaningful discussions about the topics with my group.

Laura Cerviño: I really enjoyed the small group discussions. We had a variety of people in the group who brought very diverse experiences, points of view, and suggestions. It was great to have discussion points for the small groups after each session, and dive into that with the small group. It helped to clarify some of the concepts, and it helped to relate those to our daily lives and experiences.

What did you learn and take away from the meeting?

Sharareh (Sherry) Koufigar: I had many takeaways from the meeting. The top three of which are:

1) **Julianne Pollard-Larkin** gave a powerful talk titled "How to Capitalize my Visibility", and ever since, I have been encouraging everyone to use my full name.
2) I discovered a plethora of new global health RT organizations that I look forward to learning more about and engaging with.
3) The negotiation session equipped me with tools to be a more effective negotiator.

Jennifer Pursley: I could list at least one take-away from every session! One that really resonated with me is how essential trust is for collaborative leadership. Without trust, no one is willing to take risks and progress is stifled. I also found a lot of value in the session on organizational awareness, really reflecting on what

value you bring to the organization and developing the self-confidence to promote your achievements and ask for new opportunities.

Laura Cerviño: I learned many things from the different sessions and small group discussions. Some to highlight:

1) How to assess our value and purpose without being influenced by our surroundings and that self-confidence helps us to achieve that purpose
2) We all suffer from impostor syndrome and need to accept and deal with it
3) To be careful about communication style to make it more effective
4) Conflict will always arise, and we must manage it, and to manage it with empathy and see where the conflict is coming from
5) Discussions about mentorship and sponsorship made me think about how to strategize my mentor and sponsor roles and how to give back the opportunities that I have been given as a mentee and sponsored individual
6) How we need to keep good relationships with vendors, what influences negotiations with them, and how to optimize those negotiations
7) Something I had already learned but it was good to get a refresher: SMART goals for our strategic planning
8) The role of medical physicists in advocacy
9) Learned about a new concept: service-oriented collaboration, which I need to dive into a little more and see how to put that in practice on a conscious level.

Recorded content is available for registrants for six weeks after the live event and most of the presentations will eventually be available to members in the AAPM Virtual Library. This conference was the first of its kind for AAPM and organized by Unit 70 comprised of **Laura Cerviño, Ashley Cetnar, Emily Hirata, Jennifer Johnson, Jean Moran, Angelica Perez-Andujar, Julianne Pollard-Larkin**, and **Toni Roth** with guest members **Ghada Aldosary, Catherine Olguin, Andres Portocarrero Bonifaz**, and **Tiffany Tsui**. The conference organizers are thankful for the opportunity to host this meeting for members and look forward to reviewing the program evaluations from the event. We appreciate the support to host this meeting from AAPM leadership and the help from AAPM staff members who made this meeting possible. ■

AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE

UPDATE TO AAPM ONLINE EDUCATION CREDITS PROGRAM

The move to a virtual meeting environment in 2020 and the expectation that future AAPM meetings will include a virtual component necessitate that AAPM rethink existing fee structures. Two changes have been made to the subscription program:

- Starting in 2021, non-members are now able to subscribe to the Online Education Credits Program to earn credits through the AAPM Website.
- The Online Education Credits Program subscription fees have not increased since 2013 — in 8 years. The Board approved an increase in fees beginning in 2022, as follows:

Membership/Affilliation Type	2022 Subscription Fee MEMBERS	NEW 2022 Subscription Fee NON-MEMBERS
Full Associate	$150	$300
Emeritus & Emeritus Associate Corresponding Professional Affiliate International Affiliate	$100	
Resident Junior	$20	$150
Student	$0	$50

AAPM POST-MEETING ACCESS FOR 2021

2021 meeting registrants can access recorded content sooner than non-registrants. What does this mean for you?

After AAPM Meetings in 2021

Registrants, regardless of AAPM membership status, continue to have post-meeting access to the 2021 meeting content of which they attended via the various 2021 AAPM meeting websites as a benefit of their meeting registration.

AAPM members will gain access one year after the 2021 meeting and non-members will gain access two years after the 2021 meeting via the AAPM Virtual Library.

New! Didn't Register and Want Access Earlier?

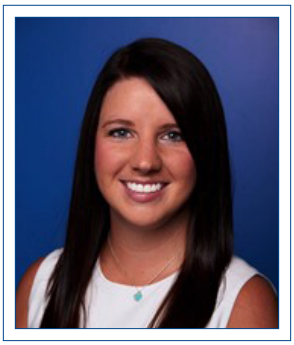
AAPM members and non-members who did not register for a 2021 meeting may purchase post-meeting access to the content through the various AAPM meeting websites.

Now members and non-members can earn credits from recorded meeting content all year long by subscribing to the Online Education Credits Program.

SPECIAL INTEREST FEATURE: Women's Professional Subcommittee

WOMEN'S PROFESSIONAL SUBCOMMITTEE AFTER-HOURS SESSION AT THE 2021 ANNUAL MEETING

Malorie R. Veres, MS | Mayo Clinic



The 2021 Women's Professional Subcommittee (WPSC) hosted a virtual after-hours session this year in replacement of the annual luncheon. The focus of this year's session was a preview for the Accelerating Women and Minority Physicists event, a virtual event held August 19–20. The interactive session included two speakers, followed by breakout rooms where participants were provided discussion questions. Several participants of the After-Hours Event could be seen donning their custom AAPM WPSC scarf, made by Knotty Tie Co.

The event opened with a welcome and overview of the agenda of the evening by **Kristi Hendrickson**, Chair of the WPSC. She then introduced AAPM president **Jim Dobbins**, who offered a time of welcome and reflection. He made remarks on the climate survey and the Picture a Scientist film. Jim also recognized and congratulated recent AAPM fellows and board members, naming each woman. He acknowledged the need and desire to create a welcoming and inclusive AAPM.

The first speaker of the evening was **Julianne Pollard-Larkin** of MD Anderson Cancer Center. Julianne provided a very powerful presentation on how to capitalize on your visibility and thrive. She talked about multiculturalism and celebrating your heritage. We all want to belong, and that can cause us to conform. People often try to find a balance between assimilation, where we can often downplay our uniqueness, and inclusion, where we are able to retain our individuality. Julianne also discussed code switching, where a person might seek out and feel a deeper connection with those of their same minority group. The first break-out session asked, "When have you allowed someone to mispronounce your name?" and "Do you code switch? When and why?" Conversations were had on how those with more unique or cultural names can often settle for a nickname or something "easier" to pronounce. Name mispronunciation is a microaggression, and although people do not always realize the error, it does not excuse it. The audience was encouraged to embrace who they are and not let society change them. Comments were made regarding code switching, particularly how at times, when being the only woman physicist in a group, it is expected of her to take on more "womanly roles" around the department. The final topic of Julianne's talk was how to

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Negotiation can be difficult — but why? There can be gender barriers, cultural barriers, experience gaps, or not knowing what to ask. Emily provided several pieces of advice when negotiating, including using objective measures, communicating the legitimacy of your request, quantifying your accomplishments, and providing documentation, such as a salary survey.

thrive. To do so, she recommended a daily self check-in; ask yourself, "what do I need to do to support my wellbeing today?"

The second speaker was **Emily Hirata** of the University of California San Francisco, and her topic was negotiation. Emily began her informative presentation on the topic of gender pay gap. She stated that overall the average woman's earnings are at around 80% of the average man's and within AAPM, the salary survey showed that number to be 90-95%. While there is an improvement based on these values, it was pointed out that all but one AAPM Council Chair are male, so there is room for further improvement in terms of creating a balanced AAPM organization. Emily encouraged attendees to know their value and worth and to negotiate for it! She discussed distributive and integrative strategies when seeking an agreement. Negotiation can be difficult — but why? There can be gender barriers, cultural barriers, experience gaps, or not knowing for what to ask. Emily provided several pieces of advice when negotiating, including using objective measures, communicating the legitimacy of your request, quantifying your accomplishments, and providing documentation, such as a salary survey. She noted that sometimes you have to get creative when money is not an option and to "think personally but act communally." She also made an important point that we should stop apologizing and to advocate for ourselves! Discussion questions included "What are some challenges you've encountered or are worried about when negotiating for yourself?" "Discuss and share some non-salary elements that we might consider negotiating on?" and "For those who are willing to share, have you experienced backlash? Do you have fear of backlash? How do you overcome it or what do you do to mitigate the fear or concern of backlash?"

A special thank you to all the speakers for their powerful and relatable talks and to the luncheon working group chair, **Lauren Long**, for coordinating this session. Even in the virtual setting, this event was quite empowering. I appreciate having the breakout rooms, where we had an opportunity to talk with and learn from other physicists in the field. The attendees were able to meet on a more neutral ground, one stripped of titles or levels of seniority, to connect on issues and topics we all frequently encounter.

Conversations are already underway for the 2022 annual luncheon. Virtual or in-person, this event has been noted as a highlight of the AAPM meeting by many attendees, and I greatly encourage each of you to attend. ■

GLOBAL MEDICAL PHYSICS EDUCATION FORUM

GLOBAL MEDICAL PHYSICS EDUCATION FORUM REPORT

Jing Cai | The Hong Kong Polytechnic University
Jiang Zhang | The Hong Kong Polytechnic University
Saikit Lam | The Hong Kong Polytechnic University • Yibao Zhang | Peking University
Tian Li | The Hong Kong Polytechnic University

Global Medical Physics Education Forum (Virtual) was successfully held from August 14–15, 2021, with a focus on strengthening international collaborations between medical physics educational programs in China and worldwide. The Forum was initiated and chaired by **Jing Cai**, Program Leader of Medical Physics, Department of Health Technology and Informatics (HTI), The Hong Kong Polytechnic University (PolyU). It was sponsored by HTI, Faculty of Health and Social Sciences (FHSS) of PolyU and endorsed by the International Organization for Medical Physics (IOMP), Chinese Society of Medical Physics (CSMP), North American Chinese Medical Physicists Association (NACMPA), Hong Kong Association of Medical Physics (HKAMP), Hong Kong Institute of Physicists in Medicine (HKIPM), and Global Collaborative Oncology Group (GCOG).

The Forum started with welcome speeches by Prof. Shea-ping Yip, Head of HTI, PolyU, Prof. David Shum, Dean of FHSS, PolyU, and **James Dobbins**, President of the American Association of Physicists in Medicine (AAPM). They all stressed the influential role of medical physics in various areas, from disease diagnosis and therapy in clinics to scientific and technological innovations in research/industry. Following analysis of the current medical physics development and job market at regional and international scales, they outlined several critical challenges in medical physics education. Lastly, they appreciated the significance of this Forum in promoting medical physics education via an act of global solidarity and look forward to more fruitful dialogues and collaborations between medical physics communities in the near future.

Following the delightful opening, medical physics directors and program leaders from more than 40 educational institutions across the globe participated in sharing their standpoints, experience, and vision toward medical physics education. Concerning China's medical physics education, the invited speakers analyzed achievements and lessons learned from the past in their institutions, put forward the challenges for future development, and shared thoughts on global collaboration for medical physics education. As the representatives of China's medical physics education, experts from more than 20 institutions, including the Chinese Academy of Medical Sciences Cancer Hospital, Peking University, Tsinghua University, Beijing Union Medical College Hospital, Sun Yat-sen Cancer Center, Shenzhen Institute of Advanced Technology Chinese Academy of Sciences, etc., underscored the rapid development of China's medical physics in wide-ranging areas from academia, to the clinic, to industry and other aspects. Further, global medical physics eminences from more than ten educational institutions, including Harvard University, Duke University, the University of California at Los Angeles, University of Pennsylvania, University of Texas Southwestern Medical Center,

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Global Medical Physics Education Forum (Virtual) was successfully held from August 14 to 15, 2021 with an eye towards strengthening international collaborations between medical physics educational programs in China and worldwide. Medical physics educational programs from more than 40 institutions across the globe participated in sharing their standpoints, experience, and vision toward medical physics education.

Rundown of the Event 会议日程

Part I 第一部分

19:00 – 22:40 PM, Aug 14 2021 Saturday (Beijing Time, BT)
北京时间 8 月 14 号周六晚 19 点至 22 点 40 分
7:00 – 10:40 AM, Aug 14 2021 Saturday (Eastern Time, ET)
美东时间 8 月 14 号周六早 7 点至 10 点 40 分

Sessions 1	Welcoming Remarks 欢迎致辞 Chairperson: CAI Jing 主持嘉宾：蔡璟	
19:00 – 19:05 PM (BT, 北京) 7:00 – 7:05 AM (ET, 美东)	**Prof. YIP Shea-Ping 叶社平教授** Head, Department of Health Technology & Informatics, The Hong Kong Polytechnic University 医疗科技及资讯学系主任，香港理工大学	
19:05 – 19:10 PM (BT, 北京) 7:05 – 7:10 AM (ET, 美东)	**Prof. David SHUM 岑浩强教授** Dean, Faculty of Health and Social Sciences, The Hong Kong Polytechnic University 医疗及社会学院院长，香港理工大学	
19:10 – 19:20 PM (BT, 北京) 7:10 – 7:20 AM (ET, 美东)	**Prof. James T. DOBBINS** President, American Association of Physicists in Medicine (AAPM) 美国医学物理协会主席	
Session 2	**Invited Talks I 特邀报告一 Chairperson: Mike LEE 主持嘉宾：李志恒**	
19:20 – 19:35 PM (BT, 北京) 7:20 – 7:35 AM (ET, 美东)	Global Perspective of Medical Physics Human Resource 医学物理人力资源的全球视野	**Madan M. REHANI** President, International Organization for Medical Physics (IOMP) 国际医学物理组织主席
19:35 – 19:50 PM (BT, 北京) 7:35 – 7:50 AM (ET, 美东)	Medical Physics Graduate Studies at a Joint-Venture University: Duke Kunshan University 中美合资办学医学物理研究生培养：昆山杜克大学	**James BOWSHER** Duke Kunshan University 昆山杜克大学
19:50 – 20:05 PM (BT, 北京) 7:50 – 8:05 AM (ET, 美东)	Medical Physics Certificate Program in the U.S. 美国医学物理证书项目	**Irina VERGALASOVA** Rutgers Cancer Institute of New Jersey 新泽西州罗格斯癌症研究所
20:05 – 20:20 PM (BT, 北京) 8:05 – 8:20 AM (ET, 美东)	The Medical Physics Residency Program of Hospital Authority in Hong Kong 香港医院管理局医学物理实习生培养	**Dennis NGAR** Vice President, Hong Kong Association of Medical Physicists (HKAMP) 香港医学物理学会副主席
20:20 – 20:30 PM (BT, 北京) 8:20 – 8:30 AM (ET, 美东)	Break 休息	
Session 3	**Invited Talks II 特邀报告二 Chairperson: YANG Ruijie 主持嘉宾：杨瑞杰**	
20:30 – 20:45 PM (BT, 北京) 8:30 – 8:45 AM (ET, 美东)	Medical Physics Graduate Program (MSc and PhD) in the U.S. 美国医学物理研究生项目（硕士和博士）	**JIA Xun 贾询** University of Texas Southwestern Medical Center (UT Southwestern) 德克萨斯大学西南医学中心
20:45 – 21:00 PM (BT, 北京) 8:45 – 9:00 AM (ET, 美东)	Medical Physics Residency Program in the U.S. 美国医学物理住院培训项目	**LI Taoran 李陶然** University of Pennsylvania 宾夕法尼亚大学

GLOBAL MEDICAL PHYSICS EDUCATION FORUM, Cont.

etc., offered valuable and informative analysis on medical physics education, graduate program, residency program, and board certification in their practice.

Panel discussions in the Forum initiated fruitful dialogues for more than 30 invited experts and over 300 participants to proactively engage in sharing their attitudes and potential strategic approaches toward reinforcing the medical physics education in China and worldwide. Focused discussion topics included "Standardization of Medical Physics Education," "Coordination of Medical Physics Education and Employment," and "Standardization and Certification System of Medical Physics Clinical Training." As a consensus, three key perspectives (i.e., the unmet balance between demand and availability of qualified personnel, vague discipline identity, and unstandardized professional development) were identified as prime barriers for the future development of China's medical physics industry. In the meantime, China's medical physics industry faces unprecedented development opportunities under the acceleration of the population aging and the soaring demand for high-quality healthcare services. Therefore, this is presently an exhilarating moment where a revolutionized medical physics industry in China is highly anticipated in the future.

In closing, the Forum received thunderous applause when the curtain came down. **Jianrong Dai**, the Chairman of the Chinese Society of Medical Physics (CSMP), appraised that *"This Forum fully demonstrated the current status of China's medical physics education, providing everyone with hope and confidence, and at the same time exposed problems and explored solutions."* **Xiaowu Deng**, Chief Physicist in the Radiation Oncology Department of Sun Yat-sen University Cancer Center, wholeheartedly affirmed the historical significance of this Forum by concluding that *"The discipline of medical physics major is not very clear, and the professional development is still on the way. This Forum discussed thoroughly on the professional definition, scope and standardized training, education and career development of medical physics, which is well-timed and of prominent importance."* Remarkably, all participants recognized this as a critical timing to call for an act of global solidarity in strengthening medical physics education, streamlining the development of medical physics disciplines, and stimulating standardized development of professionalism for medical physicists, worldwide. Henceforth, this concerted effort will lead to great leaps for maturation, innovations, and breakthroughs of medical physics in industry, academia, and clinics across the globe. ■

Prof. Jing Cai, Chair of the Global Forum on Medical Physics Education

Prof. Shea-ping YIP Head of HTI, PolyU

Prof. David Shum, Dean of FHSS, PolyU

Prof. James Dobbins, President of AAPM

Prof. Madan Rehani, President of IOMP

REPORT FROM THE MEDICAL IMAGING AND DATA RESOURCE CENTER (MIDRC)

MIDRC SUBCOMMITTEE UPDATE

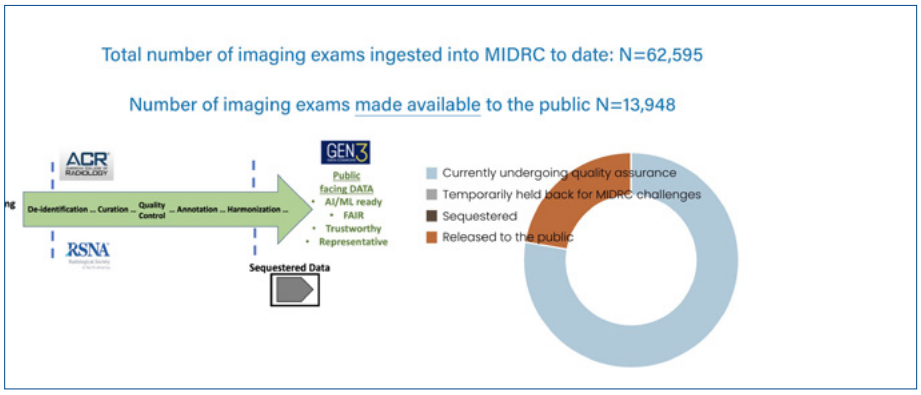
Maryellen Giger, PhD | University of Chicago
Paul Kinahan, PhD | University of Washington

M. Giger

P. Kinahan

The Medical Imaging and Data Resource Center (MIDRC) has begun to hit publishing milestones and continues to receive strong support from the National Institute of Bioengineering and Biomedical Imaging (NIBIB) and its Director, Dr. Bruce Tromberg, as it embarks on its second funded year of work towards eventual completion. Investigators from AAPM's MIDRC subcommittee are actively collaborating with research teams from the American College of Radiology (ACR), the Radiological Society of North America (RSNA), and the University of Chicago's Gen3 data commons to strengthen and refine MIDRC's data ingestion pipeline and processes.

As of September 2021, MIDRC is pleased to report that data science researchers who become users within the data portal can run queries on and build cohorts with approximately 13,400 published imaging studies of both chest radiographs and CT scans, while COVID-related MRI, ultrasound and PET scans will also become available in the near future. Additionally, there are upwards of 62,500 contributed cases currently undergoing de-identification, MIDRC data quality, harmonization, curation, and annotation processes before publication.



Along with data contributions from the University of Chicago and the University of Washington, MIDRC is grateful to subcommittee members **Nicholas Bevins**

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This multi-institutional initiative represents a partnership spearheaded by the medical imaging community aimed at accelerating the transfer of knowledge and innovation, including clinical problem identification, discovery, development, evaluation, translation, implementation, and dissemination. The first common goal of this coalition is to build data repositories to fuel COVID-19 machine intelligence research, coupled with optimal standardization, curation, and compliance with ethical responsibilities to honor patients' privacy. In order to leverage existing infrastructure, MIDRC will be a linked collection that coordinates access to data and harmonizes data management activities across all participating organizations at three critical stages: (1) intake, including curation, de-identification, abstraction, and quality assessment (2) annotation and labelling of images and other data using semi-automated approaches and (3) distributed access and query methods.

continued

MIDRC
MEDICAL IMAGING AND DATA RESOURCE CENTER

MIDRC SUBCOMMITTEE UPDATE, Cont.

MIDRC, cont.

These methods will yield a large data set that is in accordance with the FAIR principles (findable, accessible, interoperable and reusable). The public access 'front door' of MIDRC is hosted by the state-of-the art Gen3 Data Ecosystem housed at the University of Chicago and will be expanded to include and/or link to additional image and non-image data feeds from multiple registries and repositories. Through the MIDRC Data Commons Portal, images and data, as well as guidelines and recommendations, are disseminated to investigators to expedite research that provides solutions to the COVID-19 pandemic to ultimately maximize patient benefit. Please note that MIDRC is actively looking for clinical sites to contribute medical COVID-19-related images and associated data, emphasizing the importance of the inclusion of smaller sites such as community hospitals, in order to mitigate bias in the data collection. The second common goal of MIDRC is to foster machine intelligence research in the development of algorithms for the detection, diagnosis, monitoring, and prognosis of COVID-19. To this end, five Technology and Development Projects and 12 Collaborating Research Projects are part of MIDRC and are represented by a team of experts in their field. The hosting of scientific challenges will also be part of MIDRC, benefiting the research community at large.

Please direct inquiries to:
Maryellen Giger, PhD, **FAAPM,**
Paul Kinahan, PhD, **FAAPM, or**
AAPM MIDRC Program Manager,
Emily Townley

and **J. Anthony Seibert** for facilitating contributions from the Henry Ford Health System and the University of California, Davis, respectively. We continue to seek a wide variety of data contributors, in an effort to provide a diversity of imaging data sources and mitigate bias in the design and evaluation of AI algorithms. Members of the MIDRC team and AAPM MIDRC subcommittee welcome your inquiries regarding the potential contribution of images and associated metadata from your community hospital, medical imaging facility, academic medical center, or private practice. We are happy to support your data stewardship and minimize administrative burden by providing guidance on IRB, data transfer agreements, and Privacy Office approval, as well as furnishing limited funding opportunities to help clinical sites with data collection. Please reach out to any member of the AAPM DSC MIDRC subcommitee, MIDRC AAPM Programs Manager Emily Townley, or fill out a data contribution inquiry on MIDRC's website if you may be able to support MIDRC in its vital mission.

MIDRC continues to engage with the medical community at-large through various avenues. We hosted two live **MIDRC Town Hall meetings** discussing new and noteworthy advances (date for the winter Town Hall to be announced soon), you can find video recordings of these events by subscribing to the MIDRC Media YouTube channel. We've also begun a series of **monthly research Seminars**, held on the third Tuesday of every month at 2:00 pm CT, highlighting the work of individual MIDRC researchers and allowing for a live Q & A session. The upcoming Seminar speaker will be MIDRC investigator Dr. Sanmi Koyejo (University of Illinois Urbana-Champaign), who will discuss the development of algorithms for measuring and mitigating unfairness in AI. Free registration for the Seminar series can be found here.

Other recent notable MIDRC achievements include:

- Construction of the MIDRC Sequestered Data Commons
- Models created and posted to the MIDRC GitHub Repository for classification, visualization, explainability, segmentation, and prognosis prediction
- Development and optimization of multiple radiomics analysis pipelines
- Preparation for conducting multiple MIDRC scientific Grand Challenges
- Articles in preparation, under review, or published in *Radiology, Medical Physics, JACR, Nature Scientific Data* and the *Journal of Medical Imaging*, among others.

MIDRC will be the subject of several presentations at the upcoming in-person RSNA Annual Meeting in Chicago, November 28 to December 2, 2021. If you're planning to attend, stop by and visit members of the MIDRC team at our table in the Learning Center inside the Lakeside Center, McCormick Place! And please visit our website, www.midrc.org, to follow even more of the latest developments, or sign up to receive the quarterly MIDRC newsletter by clicking on this link. ■

UPDATES FROM THE ANNUAL MEETING ORGANIZING TEAM

ANNUAL MEETING SUBCOMMITTEE REPORT

Ingrid Reiser, PhD | University of Chicago

Written on behalf of the AMSC

With Fall around the corner, planning for next year's AAPM Annual Meeting is ramping up. This is a year of transition: We hope to resume face to face at next year's Annual Meeting in Washington DC, one of our member's favorite locations for the conference, and we, the meeting organizing team, are excited to be able to finally plan for an in-person meeting! However, we have learned that not all is bad in the virtual environment - and hope to bring useful elements such as On-Demand session content or live streaming to the next in-person meeting. We hope this will expand the reach to a broader community of medical physicists around the nation and the globe.

Post-meeting content access is also transitioning to a new model: For one year, only attendees will have access to all sessions via the meeting website. Those who did not attend the meeting but wish to access sessions during this time can still register on the meeting website. One-year post-meeting, meeting content will be accessible to all members through the Virtual Library (accessible to non-members two years post-meeting).

I would like to welcome new members to the meeting organizer team: **Kai Yang** (Imaging ED), **Xiangyang Tang** (Imaging Science), **Hania Al-Hallaq** (Therapy ED), **Stephen Bowen** (Therapy Science), and **Carnell Hampton** (Professional) are joining as new program co-directors. **Bryan Bednarz** and **William Erwin** head the 2022 specialty program on Nuclear Medicine Theranostics. **Debbie Schofield** is leading the technical exhibits at the Annual Meeting. I am excited and look forward to the new ideas that everyone brings to the table!

I would also like to thank the outgoing program directors for their dedication and efforts to the 2021 meeting (**Dave Jordan**, Professional; **Bobby McDougall**, Imaging ED, **Carri Hruska**, Imaging Science; **Jenny Smilowitz**, Therapy Ed; **Lei Ren**, Therapy Science; **Chris Diedrich** and **Tian Lu**, specialty program); as well as **Norman Brown** (technical exhibits) who spearheaded many innovations in the exhibit hall. Last but not least, transitions extend to our headquarters support team as well: **Lisa Rose Sullivan**, AAPM Director of Meetings and Programs, will soon be entering well-deserved retirement, and **Karen MacFarland**, Senior Meetings and Programs Manager, is transitioning to a new role at AAPM HQ. We are so grateful for their support over the years, and they will be greatly missed! We wish them the best for their future.

New on the AAPM HQ team are **Mariana Gallo** as the new AAPM Director of Meetings and Programs and **Jordan Kehrt** as Meetings and Programs Manager, and we look forward to working with them! ■

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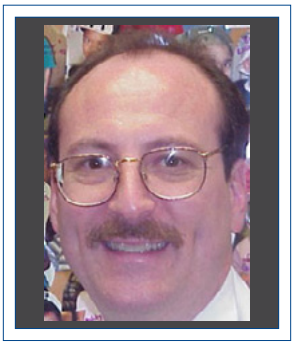
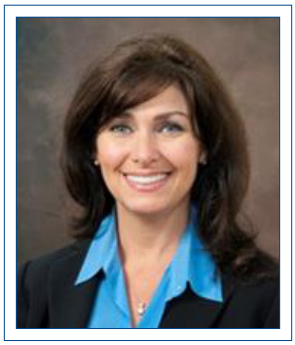
SO, WHAT ARE MPPGs AND WHY SHOULD I BE AWARE OF THEM?

SUBCOMMITTEE ON PRACTICE GUIDELINES REPORT
Daniel C. Pavord, MS | Allegheny General Hospital
Arthur J. Olch, PhD | Children's Hospital of LA
Mary A. Keenan, DMP | Vanderbilt University Medical Center

D. Pavord, Subcommittee Chair



A. Olch, Subcommittee Vice Chair



M. Keenan, Subcommittee Vice Chair

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A concise description is found on the MPPG web page:

"MPPGs are intended to provide the medical community with a clear description of the minimum level of medical physics support that AAPM would consider to be prudent in all clinical practice settings. Support includes but is not limited to staffing, equipment, machine access, and training. These MPPGs are not designed to replace extensive Task Group reports or review articles, but rather to describe the recommended minimum level of medical physics support for specific clinical services." AAPM has made a clear and intentional policy decision that the MPPG is the document that we would like to see accrediting bodies and government agencies adopt in their guidelines and/or regulations. To this end we would like to see all medical physicists strive to adopt these guidelines. When you interact with hospital administrators, regulators, or accreditation surveyors, please take the time to mention that you follow AAPM MPPGs and to educate them if they are unfamiliar. Encouraging and monitoring the adoption of MPPGs by other organizations is one of the priorities of the Subcommittee on Practice Guidelines (SPG).

The development of MPPGs is the responsibility of SPG. The SPG is embarking on a publicity campaign to help spread this message. This article is one part of that. Increased use of social media is another area that we are targeting. You can help by sharing our posts.

MPPG topics are chosen in a variety of ways. There is an AAPM BBS devoted to MPPG ideas that we routinely monitor. There is an increasing trend to develop MPPGs as companions to TG reports. In fact, this process is being formalized through an ad hoc committee. In addition, the SPG surveys what current guidance is available and tries to determine what topics would best serve the membership by looking for gaps or outdated documents. So, if you have an

idea for an MPPG topic, please post on the BBS or contact a member of SPG.

Once the idea for an MPPG is approved by SPG a chair is identified and a writing group is formed. SPG will advertise these openings on the AAPM committee classified section. There are many steps in the creation and approval process. Once a draft is ready for review, it is discussed and approved by SPG. This is followed by Clinical Practice Committee (CPC) and Professional Council (PC) reviews and votes. The next step is public comment. All comments are collated and addressed by the MPPG writing group. This does not mean that all comments are accepted. This is followed by SPG, CPC, and PC reviews. The final steps are review and approval by the AAPM Executive Committee (EXCOM) and then submitting for publication in the *Journal of Applied Clinical Medical Physics* (*JACMP*), or a similarly peer-reviewed journal. It is intended that this process will take one year which is an aggressive timeline. To meet this deadline requires the dedication of many volunteers and their efforts are greatly appreciated.

The first MPPG was published in 2013. Since then, the portfolio has grown and is expected to reach fifteen this year. In addition, five updates have been published.

The main purpose of the MPPGs is to provide clear and reasonable guidance for performing required quality assurance tasks and medical physics functions that will increase consistency and implementation, improves patient safety, and lead to better patient outcomes. We ask that you help us in this endeavor by adopting the MPPGs in your clinic, providing constructive feedback during the public comment period, and promoting them to hospital administration, regulatory and accrediting organizations. ■

TG	MPPG
Provides complete educational and scientific basis for recommendations	**Uses expertise of group members to establish minimum procedural guidelines**
Recommendations include all potential tests and narrow tolerances for items	**Recommendations include minimum practice and safety standards for implementation**
Several years to develop	**1 year to develop**
Should be used by clinics with more bandwidth and resources	**Should be used by clinics with less bandwidth and resources**
Should not be used to inform regulators of QA standards	**Should be used to inform regulators of minimum QA standards**

focus on **our future**

Giving Options
for AAPM Education & Research Fund

Donations to the E&R Fund may be made online or by completing a donation commitment form and mailing it to AAPM with your paper check. Contribution to the AAPM Education & Research Fund (General) will be spent to further the education and research activities of AAPM. Contribution to the AAPM Education & Research Fund (Endowed) will remain part of the corpus of the AAPM Education and Research fund. Only the earnings from these contributions will be used to fund education and research activities.

General Fund, Non-Endowed (Single Year Gift)

Up to 5% of the corpus of the non-endowed General Fund may be used to support education and research awards, such as fellowships for students pursuing careers in medical physics, grants for young investigators pursuing research careers, or other E&R activities or awards approved by the board of directors (see AAPM policy AP 70). Currently, two PhD graduate education fellowships are being supported.

General Fund, Endowed

This fund is available to help develop new or support existing AAPM endowed funds. For endowed funds, only earnings generated by the corpus may be used for E&R activities or awards, as the fund's corpus must be preserved to support its cause in perpetuity. Currently, AAPM endowed funds include those supporting Medical Physics and JACMP journals best paper awards, distinguished lectureships, and the John R. Cameron Young Investigators Symposium awards.

Boyer Innovation in Medical Physics Education Fund

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

History Committee Fund, Non-Endowed

This fund supports projects and activities of the History Committee, which is charged with preserving the history of medical physics as recorded in documents, photographs, personal papers, professional memorabilia, scientific records, and equipment.

Philip Heintz Memorial Fund

This Memorial Fund is a fitting tribute to Dr. Heintz, a champion in the field of medical physics and a fellow of AAPM. His service to AAPM included his serving as chair of several AAPM task groups. He contributed to the advancement of medical physics knowledge through independent, original research and development, illustrated by his starting his own radiation therapy software company based upon his own programs. He was an educator, teaching medical physicists, medical residents, and allied health personnel, and he developed a Master of Science program in Medical Physics at the University of New Mexico. Also, he helped develop and grow graduate school and residency training programs in diagnostic radiology.

James G. Kereiakes Memorial Fund

Dr. Kereiakes served as the eleventh AAPM president in 1970 and was a Fellow of the AAPM. He was responsible for substantial contributions in teaching, training, research, clinical service, and professional affairs, having initiated training programs in radiological physics and in nuclear medicine. He was very active in the American Board of Radiology certification program over a period of 27 years. Dr Kereiakes was the initial Editor of the Quarterly

AAPM EDUCATION & RESEARCH FUND

Bulletin and successfully launched its publication, which in later years became the Newsletter. He had a highly productive research career with over 200 publications on nuclear medicine, physical aspects of diagnostic radiology, and of radiation oncology. Dr. Kereiakes received the AAPM William D. Coolidge Award and the Gold Medal of the RSNA in 1988. As a tribute to his academic teaching, the Ohio River Valley Chapter of AAPM established the James G. Kereiakes Annual Lecture Series.

Jack S. Krohmer Memorial Fund

Dr. Krohmer was considered a pioneer of medical physics and was a charter member of AAPM. In 1974 he served as AAPM president, and he was a Fellow of AAPM. He initiated the AAPM Placement Service and operated it for 14 years. He worked to bring young people into the field of medical physics by developing educational initiatives, which included graduate programs in medical physics, instructional programs in physics for resident physicians in radiation oncology, and college-based training programs for radiographers and radiation therapists. Dr Krohmer also served on the Board of Trustees of the ABR from 1972 to 1993. In 1985 he received the AAPM William D. Coolidge Award in recognition of his achievements. In 1992 he was honored with the award of the RSNA Gold Medal, and the ACR presented him with their Gold Medal in 1994. Dr. Krohmer also found time to serve as a consultant to equipment manufacturers and architectural firms, designing many radiation therapy installations.

Lech Papiez Memorial Fund

A brilliant mathematician and AAPM member for over 20 years, Dr. Papiez was a native of Sosnowiec, Poland. He studied at the Uniwersytet Slaski Instytut Fizyki in Katowice, Poland where he earned a PhD in theoretical physics. He moved to Dublin, Ireland and then to Winnipeg, Manitoba, Canada before settling in Indiana. Dr. Papiez devoted his life to cancer research and pursued his life's work at Indiana University School of Medicine in the Department of Radiation Oncology. He was a prominent researcher, professor, patent holder and extensively published medical physicist. He was instrumental in designing an extremely effective radiation treatment for early-stage lung cancer, saving countless lives as a result.

Memorial Funds are governed by AAPM Policy AP 99.

African Affairs Fund

Contributions to the Fund may be used for any cause the African Affairs Subcommittee of the International Committee believes beneficial for medical physicists in this region. Its impetus is to fund awards to medical physicists (professionals and students) and organizations for a myriad of initiatives that pertain to clinical, education, or research activities, as well as travel grants and other outreach needs to medical physicists throughout African countries.

Asia/Oceania Fund

Contributions to the Fund may be used for any cause the Asian Oceanic Affairs Subcommittee of the International Committee believes beneficial for developing countries in the region. Funds may be allocated to cover registration fees for participants from developing countries, purchase of books and small devices for larger centers, and payment of IOMP membership dues that afford opportunities for medical physicists to apply for travel grants, etc.

European Affairs Fund

Contributions to the Fund may be used for any cause the European Affairs Subcommittee of the International Committee believes beneficial for medical physicists in this region. Funds may be allocated to cover registration fees, travel grants, etc.

Latin American Affairs Fund

Contributions to the Fund may be used for any cause the Latin American Affairs Subcommittee of the International Committee believes beneficial for developing countries in this region. Funds may be allocated to cover registration fees, travel grants, etc. for medical physicists.

Middle East Affairs Fund

Contributions to the Fund may be used for any cause the Middle East Affairs Subcommittee of the International Committee believes beneficial for developing countries in this region. Funds may be allocated to cover registration fees, travel grants, etc. for medical physicists.

Donate Now!

For more information and to donate visit:
https://www.aapm.org/education/edfundlinks.asp

AAPM EDUCATION AND RESEARCH FUND: Q&A

DEVELOPMENT COMMITTEE REPORT #1 Kenneth Hogstrom, PhD | Mary Bird Perkins Cancer Center

What is the AAPM Education and Research (E&R) Fund?

It is an account that funds AAPM's multiple education and research grants and awards (approximately $360,000 in 2020). Its revenues come from numerous philanthropic[1] funds managed by the Development Committee and the annual operations budget. To appreciate the broad scope of grants and awards, view AAPM E&R Fund Annual Reports.

Why should I donate to the AAPM E&R Fund?

Gifts to the E&R Fund are one of many ways you can give back to our medical physics profession and give thanks for the ways you have been supported in your career and the satisfaction you have received. E&R donations recognize outstanding young scientists in our profession, support promising young trainees, seed future research ideas, develop young researchers, provide financial assistance for education, recognize innovative education and research, and more. Think about how good you felt if you were previously recognized, or better yet, how good you felt helping young people in our profession.

Do organizations provide support for AAPM Education and Research awards?

Yes, quite generously! In 2020, AAPM received gifts earmarked for specific awards from related professional societies and supporting businesses. For example, for the six-year period (2019-2025), the RSNA is providing $210,000 ($35,000/year) along with AAPM's $420,000 to match funds supporting nine positions in existing or new imaging physics residency programs. Another related society, ASTRO, co-supported a $25,000 ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant. Also, the AAPM Northwest Chapter supported one $5,500 Summer Undergraduate Fellowship Program (SUFP) fellow and one $5,500 Diversity Recruitment through Education and Mentoring (DREAM) Program fellow. Although not awarded due to COVID-19 in 2020, the TeamBest/AAPM Award provides five $1,000 fellowships for travel to the AAPM Annual Meeting each year.

What activities do endowed funds support?

AAPM endowed[2] funds support (1) Medical Physics journal best paper awards (Farrington Daniels Award, Sylvia and Moses Greenfield Award), (2) Journal of Applied Clinical Medical Physics best paper awards (Michael D. Mills Editor-in-Chief Award, Peter R. Almond Award, George Starkschall Award, Edwin C. McCullough Award), (3) distinguished lectureships (Carson/Zagzebski Distinguished Lecture on Medical Ultrasound, Anne and Donald Herbert

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[1]*Philanthropic:* seeking to promote the welfare of others, especially by donating money to good causes

[2]*Endowed Fund:* permanent fund on which the earnings are available for grants and awards while the principal (the amount deposited into the fund) remains intact

[3]*Corpus:* the principal of a fund, i.e., the sum of the donations to a fund, which is distinct from income or interest earned

[4]*Non-endowed Fund:* fund with no permanent principal balance that is immediately available for distribution; however, its spending may be restricted to specified guidelines like those in AAPM policy AP 70

[5]*Bequest:* the act of giving or leaving something by will

Distinguished Lectureship in Modern Statistical Modeling), (4) John R. Cameron-John R. Cunningham Early-Career Symposium Awards, and others. Because endowed funds are often named and have a specific purpose, they require an agreement between AAPM and the major donor(s) according to policy AP 6. Once a targeted corpus[3] is achieved, they typically do not require further donations.

What activities do non-endowed funds support?

Development Committee works with Education and Research Councils to plan expenditure of the General (non-endowed[4]) Fund's annual allowed allocation. For 2022, $95,000 is budgeted for four $10,000, 1-y PhD fellowships, three $10,000, 1-y MS fellowships, and one $25,000 Research Seed Grant. Find details on applying for these fellowships and grants for 2022 here.

The Innovation in Medical Physics Award, which has been supported for the past ten years by a non-endowed bequest[4, 5] from the estate of Harold Markus, will be supported in future years by the Arthur Boyer Innovation in Medical Physics Award endowed fund. Other awards include junior investigator awards (Jack Krohmer, Jack Fowler) supported by the endowed Jack Fowler Fund.

How do multiple philanthropic funds support E&R Fund grants and awards?

Currently, the AAPM E&R Fund portfolio contains 30+ funds, both endowed and non-endowed. Endowed funds retain their corpus while generating expendable funds through investment earnings to an expendable fund; these funds are typically restricted to supporting a specific activity. Uniquely, the AAPM General (endowed) Fund can be used to promote and establish new named, endowed funds.

Non-endowed funds are numerous, and AAPM's primary fund is its General (non-endowed) Fund, governed by policy AP 70 that restricts expenditures from the fund to 5% annually. On December 31, 2020, its balance was approximately $2.1 million, leaving annual expenditures up to $105,000. There are multiple memorial funds, which are created and governed by policy AP 99. Eventually, these funds are either used to create new, named funds restricted to a specific purpose or rolled into the General (non-endowed) Fund. Also, there are multiple international funds, which may be used to support education and research internationally. Lastly, there is a History Fund that the History Committee may use to educate the membership and public on the history of medical physics.

How can I give to the AAPM E&R Fund?

AAPM is a 501 (c) (3) organization, and its EIN is 23-7057224. Hence, donations to the AAPM E&R Fund are tax-deductible in accordance with the law and can be made in multiple ways:

- **Online or Check:** On the AAPM Home Page, select *Focus on our Future*, then select *Donate Now*. This opens a page with 13 funds grouped under General Funds, Memorial Funds, or International Funds, and clicking on any one of these opens a page describing the fund and giving you the options of donating online or by check. In giving, remember the benefit of matching funds per AP 95 for gifts exceeding $2,500 over five years. For those over 70.5 years old, remember the benefits of qualified charitable deductions (QCDs), moved directly from your IRA or another eligible account to AAPM via check or transfer.
- **Transfer of Funds:** Coordinate through headquarters Development staff.
- **Bequests:** You may include AAPM in your will or estate plan. If AAPM is notified of such intent, then $5,000 will be transferred from AAPM operating funds into the E&R General (non-endowed) Fund in accordance with policy AP 18.
- **Restricted Gifts**: If you wish to establish an award restricted to a purpose, named or unnamed, endowed or non-endowed, please contact the Development Committee Chair or headquarters Development staff to develop an agreement with AAPM in accordance with policy AP 6.
- **Amazon Smile:** You may give with each purchase by going to smile.amazon.com and selecting AAPM as your charity.
- **Other Important Gifts**: Other types of gifts could include the transfer of stock, insurance policies with AAPM as benefactor, land, or other items of value. To learn about such gifts and any tax benefits, please visit our planned giving website provided by Stelter. The website is of

DEVELOPMENT COMMITTEE REPORT #1, Cont.

value far beyond AAPM giving, e.g., wills and estate planning, and members are invited to visit.

When should I give to AAPM?

Your gift is welcome any time, and the AAPM issues a few reminders during the year:

- **Annual Meeting Registration:** At the time you register for the Annual Meeting, you have the option to donate to the General Fund (non-endowed).
- **Payment of Dues:** At the time you pay annual dues, there are options to select a fund to which to donate.
- **End of Year:** Chair of AAPM Development Committee sends a reminder to members for those electing to make end-of-year gifts.
- **Stelter Newsletters:** Currently, AAPM sends members two eNewletters and one mailed Newsletter each year. These newsletters contain knowledge regarding estate planning and how to plan your giving for optimal benefit.

Also, during the year, there are periodic requests for memorial gifts or special gifts to raise funds for a specific purpose. Members are also encouraged to consider legacy gifts as part of a will or estate plan.

I hope these Questions and Answers provide a better understanding of how your Development Committee serves AAPM members and how you might participate. We realize AAPM philanthropic activities and giving options can be complex, so members are encouraged to contact us directly or visit our Donors Lounge located in the foyer at our annual AAPM meetings. ■

AAPM Newsletter | November/December 2021
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EDUCATING AAPM MEMBERSHIP ON PHILANTHROPY

DEVELOPMENT COMMITTEE REPORT #2 Kenneth Hogstrom, PhD | Mary Bird Perkins Cancer Center

Research and education programs can benefit from the availability of philanthropic gifts, both endowed and non-endowed. Such gifts provide funds supporting endowed chairs, professorships, student scholarships, research grants, visiting scientists, and other programmatic needs such as research equipment, supplies, training, etc. They seed new research and bridge research funding gaps. Additionally, the prestige of named posts for faculty, student fellowships, and discretionary research funds can be attractive for the recruitment of students and faculty. So, how can your program benefit? Is your program receiving its share of institutional philanthropy? If not, how can this be achieved?

There is no better example of success than the philanthropic support at my institutions, Louisiana State University (LSU) and Mary Bird Perkins Cancer Center (MBPCC). Together, our medical physics program began seeking philanthropic funds in 2004, and presently, has in excess of $9 million in endowed funds, as well as non-endowed grants, for medical physics. The program realized this by adopting a philanthropic culture and working closely with our local foundations and administrations.

The AAPM Development Committee recently expanded its list of activities (see Rules 3.6.6) to include, "*Educate members on acquiring philanthropic support for local medical physics education and research activities and awards.*" In 2022, the Development Committee will commence plans (1) to establish a database of endowed funds supporting medical physics in the United States and (2) to develop philanthropic learning modules focusing on medical physics. Success will require member participation and interest, so stay tuned for future plans and opportunities. ■

DR. CHARLES M. SMITH BEQUEATHS $7.8 MILLION TO LSU-MBPCC MEDICAL PHYSICS

Kenneth Hogstrom, PhD | Mary Bird Perkins Cancer Center
Wayne Newhauser, PhD | Louisiana State University
Jonas Fontenot, PhD | Mary Bird Perkins Cancer Center

Dr. Charles M. Smith, Physician and Philanthropist

Dr. Charles M. Smith recently bequeathed $7.8 million to the Louisiana State University (LSU)-Mary Bird Perkins Cancer Center (MBPCC) medical physics programs. They consist of the CAMPEP-accredited LSU MS and PhD in Medical and Health Physics Programs and MBPCC CAMPEP-accredited Radiation Oncology Physics Residency Program.

Through the LSU Foundation, part of Dr. Smith's gift will be used to double the $1 million Dr. Charles M. Smith Chair of Medical Physics, originally created in 2006, and to establish new endowed funds within the College of Science's Department of Physics & Astronomy to advance its medical physics academic and research programs. New funds include: (1) the Dr. Charles M. Smith Medical Physics Endowed Fund, providing general support of faculty, students and staff, (2) the Dr. Charles M. Smith Distinguished Professorship in Medical Physics, supporting recruitment and retention of faculty, (3) the Dr. Charles M. Smith Superior Graduate Student Scholarship in Medical Physics, supporting graduate students, and (4) contribution to a new Interdisciplinary Science Building that will bring together LSU students, faculty and researchers in a world-class space for scientific inquiry, discovery, and collaboration. Through the Mary Bird Perkins Cancer Foundation, Dr. Smith's gift will be used to create (1) a Chief of Physics Award to support research and educational activities, (2) a Directorship and multiple Scholar Awards to assist adjunct faculty with research projects involving graduate students, and (3) an Educational Fund to support graduate education programs.

As a beloved family medicine practitioner in Sulphur, LA, and coroner of Calcasieu Parish for many years, Dr. Smith devoted his career to helping Louisiana families. He developed an appreciation for the critical role of medical physics in medicine while undergoing life-saving cancer treatments. As an alumnus of the LSU College of Science (1951, BS in Biological Sciences) in Baton Rouge, LA, and the LSU School of Medicine in New Orleans (1955), Dr. Smith became a close friend and supporter of the LSU-MBPCC Medical Physics and Health Physics Program, providing the lead gift in establishing the Dr. Charles M. Smith Chair of Medical Physics in 2006. He loved LSU and loved spending time with students, faculty, and administration in the LSU-MBPCC programs.

MBPCC President Todd Stevens reflected, "Dr. Smith's generous gift will live in perpetuity within Mary Bird Perkins Cancer Foundation, propelling cancer care

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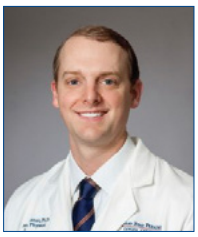

J. Fontenot

CHARLES M. SMITH, Cont.

forward in Louisiana and beyond for generations to come." In recognition of his many contributions, Mary Bird Perkins' Medical Physics Program will now be recognized as the ***Dr. Charles M. Smith Medical Physics Program***.

LSU Dean of College of Science, Dr. Cynthia Peterson, added, "As a physician and cancer survivor, Dr. Smith was fiercely committed to quality patient care, and he recognized that scientific discoveries emerge from the collaborative work of a community of researchers who build upon each other's efforts over time. He believed in this program and envisioned its potential". In recognition of his many contributions, the LSU Board of Supervisors has renamed the program the ***Dr. Charles M. Smith Medical and Health Physics Program***.

Since 1980, LSU and MBPCC have collaborated to operate a medical physics program essential to the state of Louisiana. Since 2004, shortly after the program became part of the Department of Physics and Astronomy, it has worked with the LSU Foundation and the MBPCC Foundation to acquire philanthropic funds for medical physics education and research. Dr. Smith's bequest plus gifts from other donors, brings the program's 2021 endowment to over $9 million. ■

Entrance to medical physics faculty and staff offices at Mary Bird Perkins Cancer Center

OUR CONDOLENCES

Ahmed Mohiuddin, MS

J. Peter Veerling Jr., MS

Robert L. Carver, PhD

Joseph A. Anderson, BS

Luther B. Aull, PhD

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

If you have information on the passing of members, please inform HQ ASAP so that these members can be remembered appropriately.

We respectfully request the notification via e-mail to 2021.aapm@aapm.org
(Please include supporting information so that we can take appropriate steps.)

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