

Alumni Spotlight - Ina Sala, Ph.D.



Ina Sala is a 2020 graduate of the PhD program in Medical Physics within the Wayne State University School of Medicine. She completed a MS in Medical Physics at the Chicago Medical School, an MBA at the University of Kansas, and practiced as a clinical radiation oncology physicist for 8 years prior to enrolling in the WSU PhD program. She then served as a faculty member for Yale University School of Medicine before transitioning to her current role as Director of Physics for the University of South Florida. In addition to her professional roles, Dr. Sala continues to give back to WSU in numerous ways, including serving as a member of the WSU School of Medicine Alumni Association. She was also gracious enough to provide us the interview below. Read on to learn more about her journey in medical physics.

How did you discover medical physics?

Like most Medical Physicists, I discovered medical physics by chance. My dream was to become a Cardiologist, so I obtained enough courses in Pre-Medicine as well as a bachelor's in physics. However, as I was getting ready to go to Medical School, my undergraduate advisor introduced me to medical physics, and I thought it was the perfect avenue for me. It combined both medicine and physics.

Why did you choose WSU for your graduate education in Medical Physics?

Wayne State is home for me. They have one of the oldest and most established programs in the country. I knew I would get the best education there. It never crossed my mind to attend any other University. They have some of the most renowned faculty in the country and I was certain I would get the best education there.

Tell us a little about your career after leaving WSU.

After I left WSU, I joined Yale University of School of Medicine as their Chief of Dosimetry Services and Assistant Professor. It was a pleasure joining an Ivy League University after I left WSU. I felt that WSU prepared me for an Ivy League institution. After I left Yale, I joined the University of South Florida as their Director of Physics where I oversee several departments across the Tampa Bay region.

What is your current position and what are your roles/responsibilities?

I'm currently the Director of Physics at the University of South Florida. I oversee several Radiation Oncology departments across Tampa Bay. I'm responsible for standardizing practices across the sites and expanding our Radiation Oncology services to new sites.

What career accomplishments are you most proud of?

I'm very proud of the work that I have put in through the years. I enjoy setting standards and seeing patients feel comfortable and safe going through their treatments. I would say that I'm most proud of obtaining a business degree in addition to my doctorate, as well as participating on national committees and learning more about impacting patient care at a national level.

What personal achievements are you most proud of?

I'm proud of balancing family and work. We often forget that family goes through our professional roller coaster with us and it is always important to take the time for our families. Recently, I have been spending time writing childrens books. A personal satisfaction.

What do you love most about being a medical physicist?

1. **Impactful Work:** I play a crucial role in improving patient outcomes by ensuring the safe and effective use of radiation in medical treatments such as radiation therapy and diagnostic imaging. I contribute directly to patient care and well-being.
2. **Technical Challenges:** I enjoy problem-solving and working at the intersection of physics, engineering, and medicine.
3. **Innovation:** I have the opportunity to contribute to cutting-edge developments in treatment techniques, imaging modalities, and quality assurance protocols.
4. **Interdisciplinary Collaboration:** I work closely with other healthcare professionals, including radiation oncologists, radiologists, oncology nurses, and engineers. This

collaborative environment can be intellectually stimulating and provide opportunities to learn from diverse perspectives.

5. Continuous Learning: Medicine and technology are always advancing, so medical physicists must continually update their knowledge and skills to stay current with the latest techniques, equipment, and research findings.
6. Ethical Responsibility: Ensuring patient safety and adhering to ethical standards is a core aspect of the medical physicist's role. Many professionals find satisfaction in upholding these principles in their work.
7. Variety of Roles: The ability to work in several settings, including hospitals, research institutions, academia, industry, and regulatory agencies is satisfying. This diversity of roles allows me to find a niche that aligns with my interests and strengths.
8. Contribution to Research: As a faculty member with USF, I engage in research projects aimed at improving treatment outcomes, developing new technologies, and advancing our understanding of radiation interactions with the human body.
9. Teaching and Education: I have the opportunity to educate and mentor future professionals, contributing to the growth of the field and shaping the next generation of experts.

What are your favorite medical physics duties?

1. Quality Assurance: I enjoy ensuring the accuracy and safety of medical equipment which is a key responsibility.
2. Radiation Safety: Monitoring radiation levels, implementing safety protocols, and ensuring compliance with regulations.
3. Research and Development: Engaging in research projects to develop new techniques, technologies, and treatment methods. This can involve exploring innovative approaches to improve patient outcomes and advance the field.
4. Education and Training: I enjoy teaching our next generation. I continue to serve as an advisor to many educational boards.

If you could leave behind a professional legacy, what would it be?

1. Advancing Knowledge and Education: A legacy focused on advancing knowledge and education which could involve creating resources, tools, and platforms that empower people to learn and understand complex topics. Whether they are patients or colleagues.
2. Improving Accessibility: Leaving behind a legacy of accessibility which might involve developing technologies or solutions that make information, services, and opportunities more accessible to individuals with disabilities or those in underserved communities.

3. Inspiring Positive Change: Leaving behind a legacy of inspiration could involve creating content, stories, and experiences that motivate and uplift individuals to make positive changes in their lives and communities.

What are some interesting talents/hobbies outside of work?

1. Cooking: I enjoy cooking. Cooking provides calmness and ability to think.
2. Tennis: I love playing tennis. I look forward to the winter in FL this year as it is perfect tennis weather.
3. Traveling: Traveling is eye opening and inspiring for me. I enjoy going through multiple trips a year. From exploring new places across the globe to traveling to the same bakery in France, I have always enjoyed traveling.

What are some unique skills that have helped you become who you are and become successful in medical physics?

Adaptability: The field of medical physics is constantly evolving with new technologies and research. Being open to learning and adapting to change is important to stay current in the field.

Technical Proficiency: A solid understanding of physics principles and knowledge of medical imaging and radiation therapy equipment is essential for effective work in medical physics.

Communication Skills: Medical physicists need to effectively communicate complex concepts to both medical professionals and patients who may not have a background in physics. Clear communication is essential for collaboration and ensuring patient understanding.

What is the most exciting thing you are working on right now?

I'm currently working on expanding our Radiation Oncology departments. Going from 1 linear accelerator to 10 in a very short period. Expanding our radiopharmaceutical program as well as enhancing our procedures and protocols. It truly is an exciting time to be at USF. On a personal level, I'm working on the next children's book.

What do you think are the most valuable aspects of the WSU Medical Physics Graduate Program, and what aspects do you think benefitted your career the most?

1. Accreditation: Accredited program that is well rounded and established.
2. Didactic Education: A comprehensive and rigorous coursework component covering essential topics in medical physics, such as radiation therapy, imaging physics, radiation safety, and treatment planning.
3. Clinical Training: Access to clinical rotations and hands-on experiences in medical facilities allows students to apply theoretical knowledge to real-world situations.

4. **Research Opportunities:** Engaging in research projects provides students with the chance to contribute to advancements in the field and develop critical thinking skills.
5. **Faculty Expertise:** A strong faculty with diverse expertise in various medical physics specialties can provide mentorship, guidance, and opportunities for collaboration.
6. **State-of-the-Art Facilities:** Access to cutting-edge equipment and technology used in medical physics practice enhances students' practical skills and familiarity with modern tools.
7. **Professional Networking:** Opportunities to connect with professionals in the field through seminars, conferences, and events can expand students' networks and open doors for future career opportunities.
8. **Preparation for Board Exams:** A strong program will prepare students for the American Board of Radiology (ABR) exams required for certification in medical physics.
9. **Interdisciplinary Exposure:** Exposure to interdisciplinary collaboration with other healthcare professionals fosters skills in effective communication and teamwork. I would say, it's a combination of the many items discussed above that have benefitted me throughout my career advancements.

What advice would you give someone entering Medical Physics graduate education today?

Research Programs Carefully: Look into various graduate programs, considering factors such as accreditation, faculty expertise, research opportunities, and clinical experiences. Choose a program that aligns with your interests and career goals.

Build a Strong Foundation: Medical physics covers a wide range of topics. Focus on building a solid foundation in physics, mathematics, and relevant sciences during your coursework.

Stay Organized: Graduate programs can be demanding. Develop good organizational skills to manage your coursework, research, and clinical responsibilities effectively.

Engage with Faculty: Build relationships with your professors and mentors. They can provide guidance, mentorship, and valuable insights into the field.

Take Advantage of Research: If your program offers research opportunities, get involved early. Research projects can deepen your understanding of specific topics and provide valuable experience.

Balance Coursework and Clinical Training: If your program includes clinical training, balance it with your coursework. Practical experiences will complement your theoretical knowledge.

Participate in Professional Organizations: Join organizations like the American Association of Physicists in Medicine (AAPM) to access resources, conferences, and networking opportunities.

Stay Current: The field of medical physics is ever-evolving. Stay up-to-date with new technologies, research, and best practices through journals, conferences, and workshops.

Develop Communication Skills: Effective communication is crucial in medical physics, both for explaining complex concepts to colleagues and working with patients.

Prepare for Board Exams: Be aware of the requirements for certification by the American Board of Radiology (ABR) or other relevant certification bodies in your country. Plan your coursework and training to align with these requirements.

Collaborate and Network: Medical physics involves collaboration with other healthcare professionals. Build relationships with physicians, radiologists, oncologists, and other colleagues.

Take Care of Yourself: Graduate studies can be intense. Prioritize self-care, manage stress, and maintain a healthy work-life balance.

Explore Specializations: Medical physics offers various specializations like radiation therapy, imaging, and nuclear medicine. Explore different areas to find where your passions lie.

Plan for Post-Graduation: Consider your post-graduation plans early. Are you aiming for clinical work, research, academia, or industry? Tailor your experiences accordingly.

Stay Curious: Medical physics is a field that combines science, technology, and healthcare. Embrace your curiosity and be open to continuous learning. One of my advisors, the late Dr. Glenn P. Glasgow, MS, PhD, FAAPM, FACR would always say: “Always be a student”.