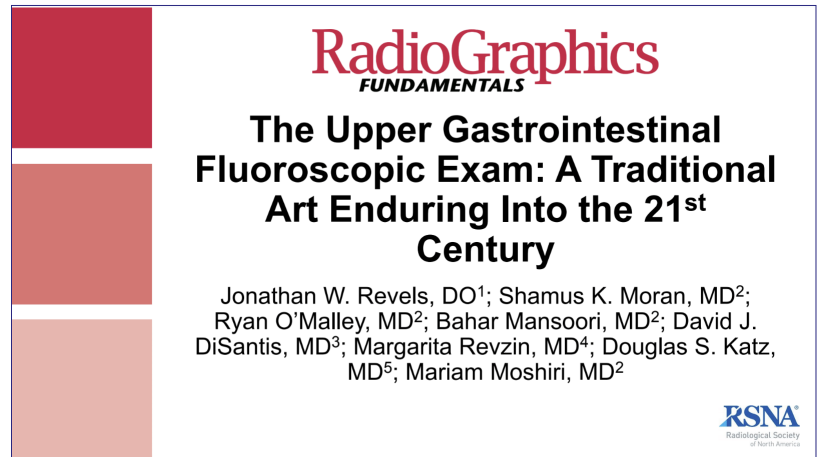
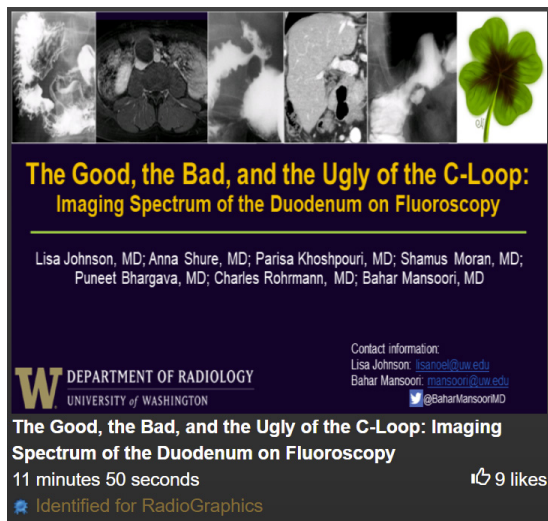


Rohrmann Endowment for UW Radiology Resident Educational Excellence

UW Radiology Residents' Research Projects

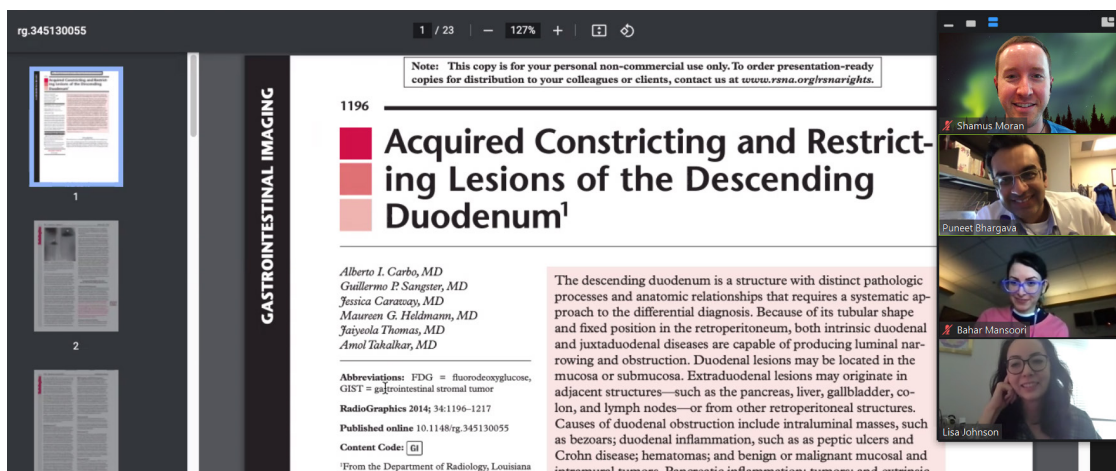
Radiology residents at the University of Washington work closely with mentors to hone their research skills, progressively putting their learning into practice by co-authoring abstracts, presentations, and articles in scientific journals, both in digital and print format. Shamus Moran, MD, PGY4, shares some of his recent research projects. Shamus has been named as the incoming Chief Research Resident for 2021-22.



RadioGraphics Fundamentals Video Tutorial, online presentation

Above: This RSNA exhibit was Identified for *RadioGraphics*. Residents Lisa Johnson, Anna Shure, and Shamus Moran work closely with their mentors, Puneet Bhargava and Bahar Mansoori, to prepare their research for publication

Below: Zoom mentoring: Dr. Bhargava offered his advice and wisdom on submitting manuscripts to *RadioGraphics*. Lisa and Shamus benefit from the guidance Drs. Mansoori and Bhargava provide with focused online meetings



You can support Radiology Resident Excellence!
 Mail your donation [note Rohrmann Endowment on your check]:
 UW Advancement, Gift Services, Box 359505, Seattle WA 98195-9505
 Call: 206.543.5686 / 866.633.2586
 Online: Acceleratemed.org/Rohrmann

Residency in Focus

2021



Jennifer Xiao, MD (PGY-5) Co-Chief Resident, first author of recently published front page article in *Radiology*!



L to R: Jennifer Xiao (PGY-5), Larry Cai (PGY-5), Achille Mileto (Faculty, Abdominal Imaging), Giuseppe Toia (Abdominal Imaging Fellow) – Co-authors pictured here at Society of Computed Body Tomography and Magnetic Resonance (SCBT-MR) – now Society for Advanced Body Imaging (SABI) Annual Meeting in 2018

Radiology

ORIGINAL RESEARCH • GENITOURINARY

Virtual Unenhanced Dual-Energy CT Images Obtained with a Multimaterial Decomposition Algorithm: Diagnostic Value for Renal Mass and Urinary Stone Evaluation

Jennifer M. Xiao, MD • Daniel S. Hippe, MS • Mladen Zecevic, MS • David A. Zamora, MS • Larry M. Cai, MD • Giuseppe V. Toia, MD • Adam G. Chandler, PhD • Manjiri K. Dighe, MD • Ryan B. O'Malley, MD • William P. Shuman, MD • Carolyn L. Wang, MD • Achille Mileto, MD

From the Department of Radiology, University of Washington School of Medicine, Box 357115, 1959 NE Pacific St, Seattle, WA 98195 (J.M.X., D.S.H., M.Z., D.A.Z., L.M.C., G.V.T., M.K.D., R.B.O., W.P.S., C.L.W., A.M.); and Global Research Organization, GE Healthcare, Houston, Tex (A.G.C.). Received November 3, 2019; revision requested December 12; final revision received October 7, 2020; accepted November 5. Address correspondence to A.M. (e-mail: amileto@u.w.edu).

Conflicts of interest are listed at the end of this article. See also the editorial by Sonna in this issue.

Radiology 2021; 00:1–9 • <https://doi.org/10.1148/radiol.2021192448> • Content codes: GU CT

Background: Virtual unenhanced (VUE) images obtained by using a dual-energy CT (DECT) multimaterial decomposition algorithm hold promise for diagnostic use in the abdomen in lieu of true unenhanced (TUE) images.

Purpose: To assess VUE images obtained from a DECT multimaterial decomposition algorithm in patients undergoing renal mass and urinary stone evaluation.

Materials and Methods: In this retrospective Health Insurance Portability and Accountability Act–compliant study, DECT was performed in patients undergoing evaluation for renal mass or urinary stone. VUE images were compared quantitatively to TUE images and qualitatively assessed by four independent radiologists. Differences in attenuation between VUE and TUE images were summarized by using 95% limits of agreement. Diagnostic performance in urinary stone detection was summarized by using area under the receiver operating characteristic curve, sensitivity, and specificity.

Results: A total of 221 patients (mean age \pm standard deviation, 61 years \pm 14; 129 men) with 273 renal masses were evaluated. Differences in renal mass attenuation between VUE and TUE images were within 3 HU for both enhancing masses (95% limits of agreement, -3.1 HU to 2.7 HU) and nonenhancing cysts (95% limits of agreement, -2.9 HU to 2.5 HU). Renal mass classification as enhancing mass versus nonenhancing cyst did not change (reclassification rate of enhancing masses, 0% [0 of 78]; 95% CI: 0, 5; reclassification rate of nonenhancing cysts, 0% [0 of 193]; 95% CI: 0, 2) with use of VUE in lieu of TUE images. Among 166 urinary stones evaluated, diagnostic performance of VUE images for stone detection was lower compared with that of TUE images (area under the receiver operating characteristic curve, 0.79 [95% CI: 0.73, 0.84] vs 0.93 [95% CI: 0.91, 0.95]; $P < .001$) due to reduced sensitivity of VUE for detection of stones 3 mm in diameter or less compared with those greater than 3 mm (sensitivity,

Happy 2021 from the IR Residents!

Our Chief Resident position baton has been passed along – Dr. Aaron Daub was our resident leader for the last year and did a fantastic job! We welcome Dr. Arthie Jeyakumar, PGY-5, as our incoming Chief Resident. She attended Cornell for undergraduate and Albert Einstein College of Medicine for her Medical Degree.

We are very grateful to have our PGY-5 sit for the CORE exam in the last month. The PGY-4 class is on schedule to sit for theirs early summer. Great job to them all!

We are looking forward to seeing UW alumni at the Society of Interventional Radiology annual conference this March. Feel free to reach out and connect! Residents (and faculty) would love to hear how the alumni are doing. Also, keep an eye out for resident presentations!

Our virtual interview season for the next class of Integrated and Independent IR has come to an end – looking forward to Match 2021.

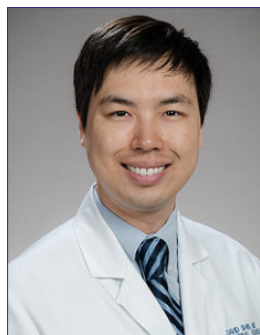
Welcome to our new IR Residency Program Director, Dr. David Shin (Resident class of 2015, Fellow 2016) and Associate Program Director, Dr. Jeffrey Chick.

Kara Fitzgerald, MD
PGY-2 Interventional Radiology

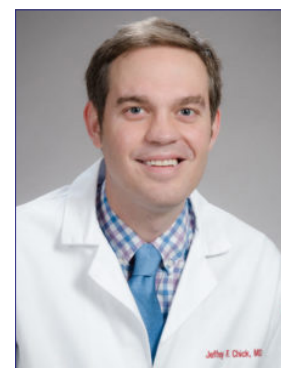
If you haven't yet, follow us on Twitter or Instagram at [@UofWa_IR](#) for other residency program updates.



Welcome to incoming IR Chief Resident, Arthie Jeyakumar, MD!



David Shin, MD
Assistant Professor
Program Director,
IR Residency
Director, IR Clerkship
Interventional Radiology



Jeffrey Chick, MD
Assistant Professor
Associate Program Director,
IR Residency
Interventional Radiology

Resident Presentations

Supported by the Rohrmann Endowment

Andrew Woerner, MD, MS (PGY-3 IR Resident), will be presenting an educational exhibit at the upcoming American Roentgen Ray Society (ARRS) Virtual Annual Meeting in April.

He has received funding from the **Rohrmann Endowment** for this meeting registration.



Andrew Woerner, MD, MS

Marissa Lawson, MD, (PGY-5): Marissa's abstract submission has been accepted for presentation as an oral paper at the Association of University Radiologists (AUR) 69th Annual Meeting (Virtual).

Multi-level Factors Leading to Delays in Time to Tissue Diagnosis after Abnormal Screening Mammography.

Marissa Lawson, MD; Michael Bissell; Diana Miglioretti, PHD; Joanna Eavey, MS; Christina Chapman, MD, MS; Christoph I. Lee, MD; et al

Marissa's scientific paper presentation is being funded by the **Rohrmann Endowment**. Thank you, donors!



Marissa Lawson, MD

{Notable as well: Last year, Marissa was awarded the AUR Neiman Award 2020 Radiology Alliance for Health Services Research (RAHSR) Harvey L. Neiman Award}



Cone-Beam Computed Tomographic Cholangiography and Interventions in Pediatric Liver Transplant Recipients

Andrew J. Woerner, MD, MS; David S. Shin, MD;
Jeffrey Forris Beecham Chick, MD, MPH; Eric J. Monroe, MD

Department of Radiology

University of Washington & Seattle Children's Hospital



Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

DEPARTMENT OF RADIOLOGY
UNIVERSITY of WASHINGTON

Conclusions

- Radiologists play an important role in evaluating and intervening on pediatric liver transplant patients
- Smaller patient size, as well as greater complexity of surgical anatomy may pose significant diagnostic and technical challenges
- Interventional Radiology's ability to integrate CBCT may address some of these challenges while providing value to the multidisciplinary transplant team

The 10-year anniversary of the Endowment continues!

Your 10-year anniversary donation to the Endowment will fund these strong enhancements to the resident educational experience:

- Funding valuable educational resources, infrastructure, opportunities, and provide meaningful awards to high-achieving residents for experiences that enhance their core training.

Together with colleagues, you will create a legacy and underscore your commitment to the enrichment of the **University of Washington Radiology Residency program**.

CONGRATULATIONS ARE IN ORDER!

Super Congratulations to the UW Radiology PGY-5 class who all recently passed their ABR core exam!

UW Radiology Alum Spotlight: Dr. Habib Rahbar



Habib Rahbar, MD
Associate Professor
Clinical Director
of Breast Imaging,
Seattle Cancer Care
Alliance

Dr. Habib Rahbar is Clinical Director of Breast Imaging at Seattle Cancer Care Alliance. He completed his UW Radiology residency in 2010, followed by a breast fellowship at UW. Dr. Rahbar has been on faculty at UW Radiology since 2011. We thank him for taking the time to answer some questions about his radiology journey.

Where are you from originally?

I was born in Iran, but only lived there for one year due to the revolution that began in 1979. My family relocated to West Virginia, where my mother had roots. Most of my colleagues would probably be surprised based on my name alone to know that I grew up on a West Virginia Christmas tree farm riding horses and four-wheeler ATVs for fun!

What was your path towards becoming a radiologist?

My father was a strong influence on my career path, and that of my siblings, too. At age 17, he emigrated from Iran to pursue a career in medicine. He became an accomplished cardiothoracic surgeon and encouraged my siblings and me to pursue a career in medicine. I always had a passion for biological sciences and briefly considered PhD work in that field but eventually settled on applying to medical school largely driven by a particular interest in cellular and cancer biology. Once I entered medical school, I realized that I enjoyed solving diagnostic mysteries much more than I enjoyed management of various diseases and conditions. This combined with a love for technology and visual learning ultimately led me to pursue a career in radiology.

What was your experience like as a resident at UW Medicine?

The residency program at UW was encouraging and demanding at the same time. Faculty had high but reasonable expectations. I also appreciated how supportive and bright my co-residents were. Even though it was at times very stressful, it prepared me well by instilling both confidence and humility, both of which have served me well in my practice. My time in residency was also marked by many personal events: My wife, Zarry, and I got married, summited Mount Rainier, and we welcomed our first of three boys, Nima, to our family. So I would summarize it as an unparalleled time of personal and professional growth.

What excites you most about radiology and what are some of your specialty areas?

I am fully subspecialized in Breast Imaging as a radiology faculty member at the University of Washington. I am particularly passionate about the use of advanced imaging tools, particularly MRI, to provide both earlier breast cancer detection and improved prognostic information. I believe that with the help of the burgeoning field of radiomics, radiology will move beyond diagnosis and begin to provide unique prognostic information for a range of diseases, including breast cancer.

What do you think are some of the most important experiences for residents to have?

It is important for residents to experience a training environment that allows them to develop through a mixture of guidance and autonomy. The UW environment, particularly Harborview Call, provides that experience exceptionally well. It is also important that residents are exposed to meaningful quality improvement projects and research opportunities. Even though most residents will not pursue a career in academic radiology, it is so critical that they develop the tools that allow them to critically analyze new data and evidence. Finally, it is critical that residents have the opportunity to experience being an educator by leading teaching conferences and even through global health opportunities such as those supported by the Rohrmann Endowment.

It is evident that education is very important to you – last Fall you began co-chairing UW Radiology's Equity, Diversity, and Inclusion (EDI) subcommittee for developing a pipeline. Tell us more about your passion and vision for medical student education and EDI efforts.

While I do not self-identify as being part of an underrepresented (URM) group in medicine, my upbringing as the son of an immigrant who experienced discrimination in medicine and my role as a husband of a female doctor have given me some unique perspectives on the challenges URMs face. Most recently, I have been inspired by a very thoughtful presentation by our Black residents given to our department in the wake of the Black Lives Matter movement. We can all agree that 2020 was a hard year for all of us, but it also created time for reflection and a chance to spotlight and address persistent challenges

“It is important for residents to experience a training environment that allows them to develop through a mixture of guidance and autonomy. The UW environment, particularly Harborview Call, provides that experience exceptionally well. It is also important that residents are exposed to meaningful quality improvement projects and research opportunities.”

in equity, diversity, and inclusion within medicine. I have come to understand that earlier engagement with members of groups who are underrepresented in medicine is a critical piece to improving our EDI efforts within the department and the School of Medicine as a whole. Our subcommittee is passionate about creating such a pipeline by developing an innovative curriculum that highlights career opportunities in radiology to a diverse community.

What are some of the biggest challenges you face in radiology?

As a physician, researcher, educator, and administrator, time management is my biggest challenge. It is so important to try to be fully present for every aspect of the job and to not let interruptions distract from the primary task at hand. This is increasingly complicated by the fact that meetings are so easy to schedule on virtual platforms like Zoom. Learning to adjust our educational approach to allow for physical distancing due to the pandemic has also been a great challenge, but one that ultimately will pay dividends as we look to provide improved equity in how we educate our residents. Finally, to keep doing what we love, we are faced with continual pressures to obtain grant funding and expand our practice so we can remain financially viable.

Having great mentors plays such an important role for all of us. Who were some of your early mentors? And who were your most recent ones?

Mentorship is so critical to a successful career. I was fortunate to have been mentored by several exceptional breast imagers early on, including Connie Lehman, MD, PhD (UW alum, now at MGH) and Wendy DeMartini, MD, (UW alum, now at Stanford) including when I was a resident and fellow. From a research standpoint, I am indebted to my colleague Savannah Partridge, PhD, for her mentorship and guidance. As the current breast imaging clinical director, I have been fortunate to have learned many leadership and management skills from Janie Lee, MD, MSc. Finally and most recently, I am being mentored by current trainee Segen Aklilu, MD, and recent graduate Berthina Coleman, MD, on how to be an effective ally for EDI causes.

What advice do you give to radiology residents today?

I get the sense that many residents are in a rush to figure out their final career destination. My advice is try to slow things down and enjoy each rotation and experience. When I started radiology residency, I didn't think I would become an academic breast imager, but here I am! Keep an open mind on each rotation and try not to rush into a fellowship decision. Seek out mentorship for every aspect of your training, including clinical work, education, leadership, and research. And most of all, try to enjoy the whole journey!

What are some of your favorite activities outside of work?

In pre-COVID times, I enjoyed traveling, with recent trips to Japan, France, and Australia being highlights. My family and I enjoy skiing in the wintertime and wake-surfing in the summer. I enjoy watching college sports, particularly my beloved Michigan Wolverines, and a good Netflix comedy series (e.g., the Office) with my three sons. I also enjoy listening to music, especially live shows, and reading historical nonfiction, with “Lies My Teacher Told Me” being a particular recent favorite.

“We can all agree that 2020 was a hard year for all of us, but it also created time for reflection and a chance to spotlight and address persistent challenges in equity, diversity, and inclusion within medicine. I have come to understand that earlier engagement with members of groups who are underrepresented in medicine is a critical piece to improving our EDI efforts within the department and the School of Medicine as a whole.

Our subcommittee is passionate about creating such a pipeline by developing an innovative curriculum that highlights career opportunities in radiology to a diverse community.”



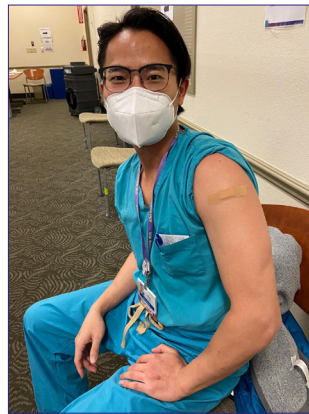
Habib Rahbar and his family – from a family trip to Sydney Australia three years ago

UW Radiology residents shared these photos – steppin’ on up for COVID vaccinations

UW Radiology Residents – Photo Gallery



Matthew Stolzberg, MD (PGY-3)



Kiet Vo, MD (PGY-3)



L to R: Arthie Jeyakumar, MD (PGY-5) and Maria Quezada, MD, MA (PGY-5)

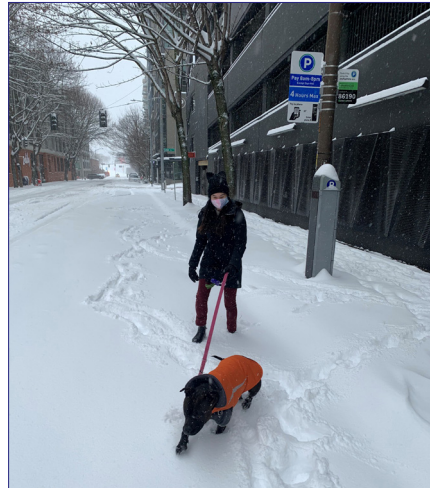


David Thompson, MD (PGY-3)



Jennifer Knight, MD (PGY-3)

Ah yes! It does actually snow in Seattle! Feb 15, 2021



Janis Yee, MD (PGY-4)

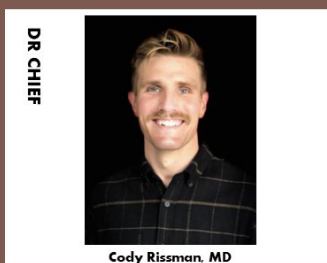


Anna Anderson, MD (PGY-3)

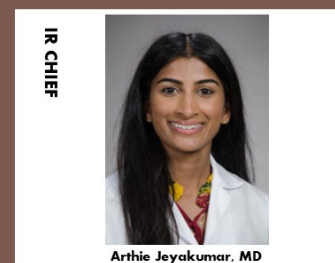
Meet the new Chief Residents 2021-2022



Janis Yee, MD



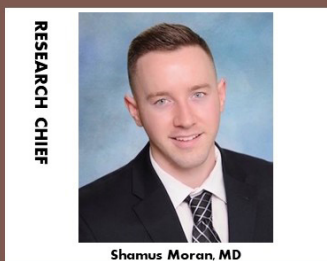
Cody Rissman, MD



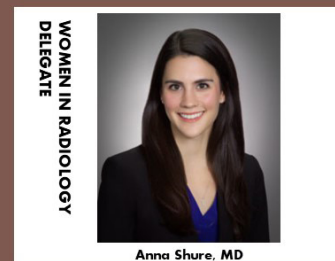
Arthie Jeyakumar, MD



Marissa Lawson, MD



Shamus Moran, MD



Anna Shure, MD

An Update on the Endowment – and Thank you, Donors!

Endowments that support UW Radiology Residents are funded by:

- ❖ UW Radiology Resident and Fellow Alumni ❖
- ❖ UW Radiology Faculty and former faculty, staff ❖
- ❖ Friends, associates, and family of the above ❖

Thank you for your ongoing support for these programs

Your continued donations in support of UW Radiology Resident Educational Excellence have been phenomenal! We are very close to the \$1 Million goal for the Rohrmann Endowment. The impact of your gifts has benefited the residency by enhancing their research, educational, and regional and global health outreach activities even during the unprecedented past year's pandemic restrictions. You can participate in the **perpetual** funding for these vital residency programs – we are just shy of \$20,000 to get there! Donate today online: Acceleratemed.org/Rohrmann

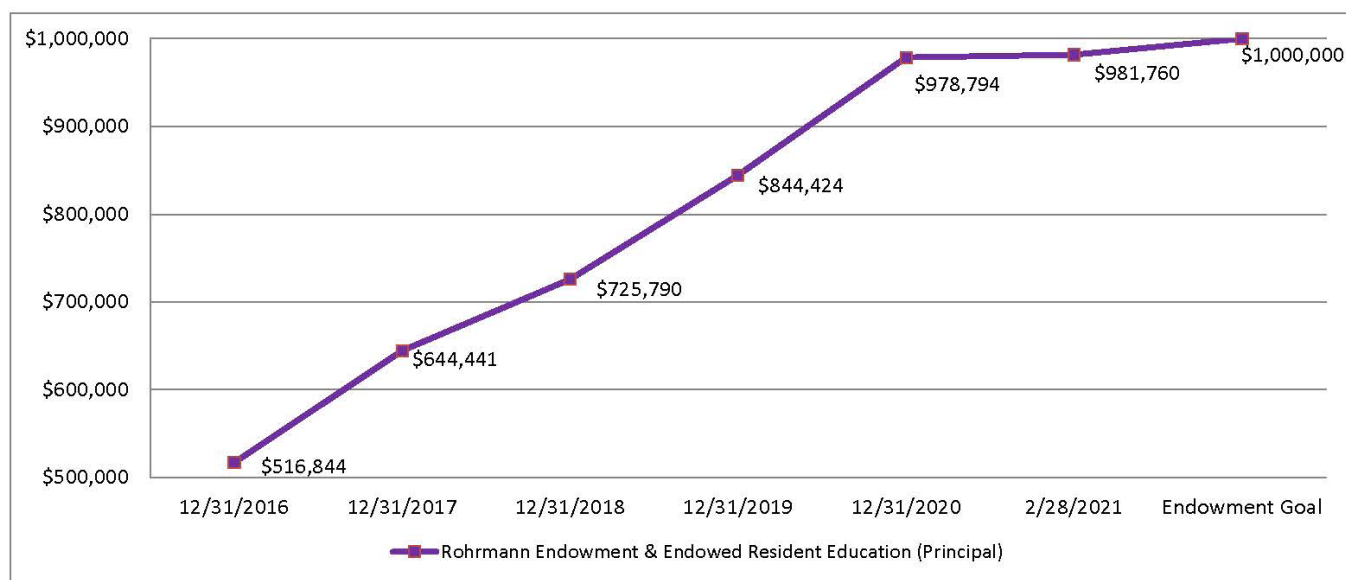
Rohrmann Endowment and Rohrmann Endowed Resident Education Principal Funds

Combined Endowment Growth December 2016 - February 2021

12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	2/28/2021	Endowment Goal
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Rohrmann Endowment
& Endowed Resident
Education (Principal)

\$516,844 \$644,441 \$725,790 \$844,424 \$978,794 \$981,760 \$1,000,000



You can also donate via mail:

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(Write "Rohrmann Endowment" in the memo line of your check):

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You can support wellness activities for the UW Radiology Department by donating directly to the department discretionary gift account (64-1137) and the gift account titled Radiology Chair's Fund for Excellence. This fund can be utilized within the Department, under the direction of the Chair, to support trainee and faculty activities that are not funded by any other source.

To donate directly, please visit this website: <http://www.acceleratemed.org/give/?source=RADDIS&Appeal=MWECA>

You can also mail a check to: UW Gift Services, Box 359505, Seattle, WA 98195-9505, Memo: Radiology Chair's Fund for Excellence.

Rohrmann Endowment
UW Medicine, Department of Radiology
1959 NE Pacific St, Box 357115
Seattle, WA 98195

Betty L. Lanman
blanman@uw.edu

Rohrmann Endowment funds e-Anatomy: Your gifts have impact!

Funds generated by the **Rohrmann Endowment** support UW Radiology's institutional license to the online resource tool *e-Anatomy*, an interactive atlas of human anatomy published by IMAIOS. Your generous donations to the Endowment benefit students in many different aspects throughout their experience as a trainee at the University of Washington. We received a testimonial from a fourth-year medical student who utilizes the atlas, and a letter of thanks from the Medical Physics and Medical Physics Radiation Oncology residency for this resource. As an institutional subscriber, the **Rohrmann Endowment's** mission of Resident Educational Excellence has far-reaching impact on the educational experience of trainees.

UW Medicine DEPARTMENT OF RADIATION ONCOLOGY

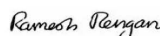
Dushyant Sahani, MD
Chairman and Professor
Department of Radiology
University of Washington

February 24th, 2021

Dear Dr. Sahani and Education Advisory Committee,

On behalf of the University of Washington's Medical and Medical Physics Radiation Oncology Residencies, we would like to thank you for generously extending use of the Department of Radiology's e-Anatomy resource; funded by the Rohrmann Endowment for UW Radiology Resident Educational Excellence. Your contribution to our educational programs is highly valued by each of our residents, and will be utilized to regularly enhance their training. We appreciate your continual partnership in so many of our department endeavors.

Sincerely,



Ramesh Rengan, MD, PhD, FASTRO
Professor and Chair
Department of Radiation Oncology | UW Medicine



Patty Adams, MHA
Vice Chair of Finance and Administration
Department of Radiation Oncology | UW Medicine



Lia M. Halasz, MD
Associate Professor, Departments of Radiation Oncology and Neurological Surgery
Program Director, Radiation Oncology Residency
Co-Director, Alvord Brain Tumor Center
University of Washington School of Medicine



Kristi Hendrickson, PhD, DABR, FAAPM
Associate Professor of Medical Physics
Director of the Medical Physics Residency Program
Faculty Lead of the Department of Radiation Oncology Diversity, Equity and Inclusion (DEI) Program
Radiation Oncology | UW Medicine

Radiation Oncology

1959 NE Pacific Street Box 356043 Seattle, WA 98195-6043 206.598.4100 Fax 206-598-3786

A Note of Thanks

My name is Aaron Robertson. I am a 4th year medical student at the University of Washington School of Medicine applying into Otolaryngology-Head and Neck Surgery. I wanted to write today about an amazing resource I found through the UW Radiology Department. As a medical student, learning radiology is complex and can be quite challenging – sometimes it feels as if I am learning a foreign language. At the medical student level, IMAIOS e-Anatomy has been extraordinary in helping to identify anatomy as I work through radiologic cases on a variety of services. Whether it's a CT scan of the pelvis on the OBGYN service, MRI of the brain on the neurology service, or a temporal bone CT on the otolaryngology service, IMAIOS e-Anatomy has been a tremendous resource that makes radiology a lot easier to learn (although I will admit, temporal bone anatomy will always be a challenge). IMAIOS e-Anatomy serves as an anatomical atlas as I go through patient imaging.

I wanted to take the time to thank the generous support of donors to the **Rohrmann Endowment** for providing this resource ~ it is invaluable. Many other medical students and I will continue to use it throughout our training. Thank you.

You can be a part of Radiology Resident Excellence! Donate Online: Acceleratedmed.org/Rohrmann