The University of Arizona
HISPANIC
HERITAGE

R&R
RECOGNIZE & REWARD

SEPTEMBER 2023

Banner
University Medical Center
Tucson

RESEARCH MEANS HOPE

THE UNIVERSITY OF ARIZONA
COLLEGE OF MEDICINE TUCSON
Medical Imaging

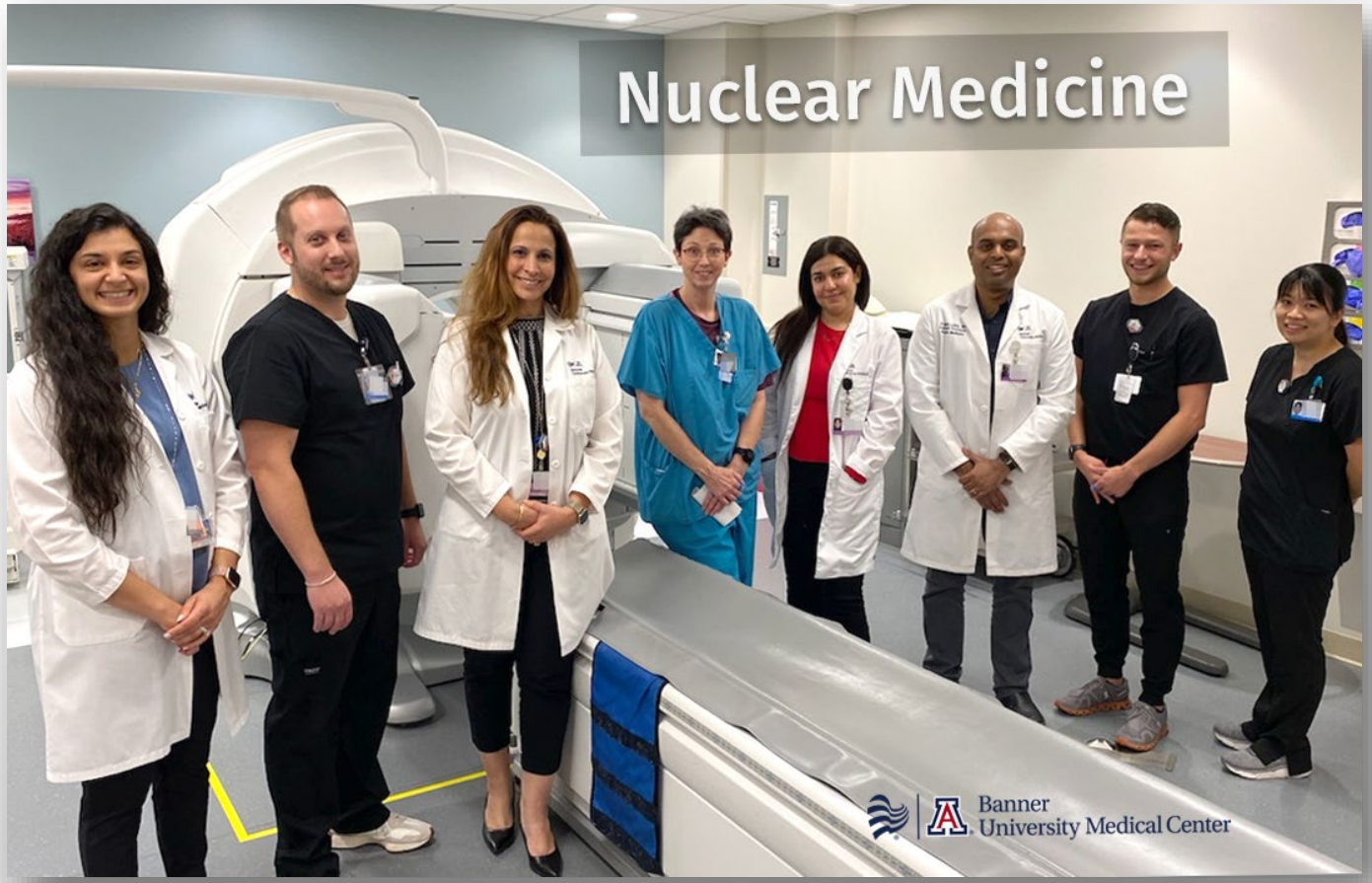
CONGRATULATIONS

We are happy to announce that
Andrew Karellas, PhD, DABR, FAAPM, FACR
has been granted **Emeritus status** in recognition of
his contributions to the University of Arizona.

During his tenure of exemplary service, Dr. Karellas
served as Professor of Medical Imaging,
Vice Chair of Faculty Development and
Director of the Biomedical Imaging Innovation &
Clinical Translation in Next-Gen CT program.

Please join us in congratulating
Professor Emeritus Karellas

YEAR IN REVIEW



Division Chief of Nuclear Medicine
Bital Savir-Baruch, MD, FACNM, is proud to share her team's accomplishments

- Hired new physician, Avanka Lowe, MD
- Hired new research associate, Sarah Fermawi, MD
- IIT and Multicentral trial approvals in process
- Leads NCR lab program for DR Residents
- Hosted three lecturers from other institutions providing our residents and fellows with cutting-edge nuclear medicine techniques and procedures
- Provided technologist-specific lectures
- Opened a new outpatient clinic that provides comprehensive nuclear medicine radiopharmaceutical therapies to our patients
- Implemented resident participation in the Theranostic center offering additional experience with nuclear medicine targeted therapies
- Trained 13 medical students in nuclear medicine with more trainees requesting to rotate through our department every session

IN THE PIPELINE/ON THE HORIZON

- New faculty member
- New tracers, new research and New PET
- Cyclotron and a dedicated space for Theranostics

PUBLICATIONS

- **Acute Cholecystitis, Chronic Cholecystitis, and Associated Complications: Findings on Imaging**. *Barr, Christian MPH;* ***Arif-Tiwari, Hina MD****; Thompson, William M. MD.* Contemporary Diagnostic Radiology 46(9):p 1-7, April 30, 2023. DOI: 10.1097/01.CDR.0000926648.83978.cb

- **Biliary Duct Dilatation: AJR Expert Panel Narrative Review**. *Daniel R. Ludwig, MD, Malak Itani, MD, David D. Childs, MD, Margarita V. Revzin, MD, Koushik K. Das, MD, Mark A. Anderson, MD,* ***Hina Arif-Tiwari, MD****, Mark E. Lockhart, MD, MPH, and Ann S. Fulcher, MD.* AJR Expert Panel Narrative Review Gastrointestinal Imaging, July 26, 2023, https://doi.org/10.2214/AJR.23.29671

- **Gallbladder Beyond Gallstones**. *Manshad, Sara BS;* ***Arif-Tiwari, Hina MD****; Thompson, William MD.* Contemporary Diagnostic Radiology 46(3):p 1-7, January 31, 2023. DOI: 10.1097/01.CDR.0000911964.22048.94

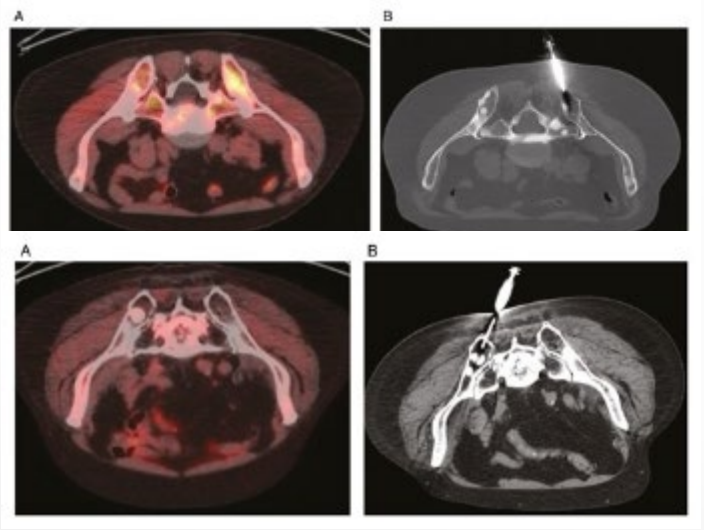
Hina Arif-Tiwari, MD, FSAR

PUBLICATION

- A Pilot Study of F-18 Fluciclovine-PET/CT as a Diagnostic Tool for Bone Metastases in Patients With Castrate Resistant Prostate Adenocarcinoma and Correlative Analysis of Blood and Bone Molecular Testing (The FACT Study).

Hani M. Babiker,[1], , Matthew D. Kay[2], Carol Stuehm[2],*
Gregory Woodhead[2], Phillip H. Kuo[3]

https://doi.org/10.1093/oncolo/oyad242
The Oncologist, oyad242,
24 August 2023



F-18 fluciclovine PET with a biopsy-positive bone metastasis. (iA) Fused transaxial fluciclovine-PET/CT image demonstrates asymmetrically increased uptake in the left posterior iliac bone with SUVmax 6.8. Image is flipped to simulate prone position for easier comparison to biopsy position. (B) Transaxial image from CT performed for image-guided biopsy in prone position shows the successful placement of the needle. Pathology confirmed metastatic prostate adenocarcinoma. F-18 fluciclovine PET with a biopsy-negative bone metastasis. Fused transaxial fluciclovine-PET/CT image demonstrates a sclerotic lesion suspicious for metastasis in the right posterior iliac bone with SUVmax

Greg Woodhead, MD, PhD

PUBLICATION

- Lung Parenchymal Abnormalities and Outcomes in Hospitalized Patients with COVID 19 Pneumonia: A positive Message from a Prospective Hospital-Based Longitudinal Study for Future Considerations

*Bornali Datta [a], Ashish Kumar Prakash [b], **Kavitha Yaddanapudi** [c], Kulbir Ahlawat [a], Jaya Prasad Tripathy [d], Pinky Goyal [a], Anand Jaiswal [a], Padam Singh [e], Sudhakar Pipavath [f], Ganesh Raghu*

Respiratory Medicine, Volume 213, July 2023

https://doi.org/10.1016/j.rmed.2023.107261

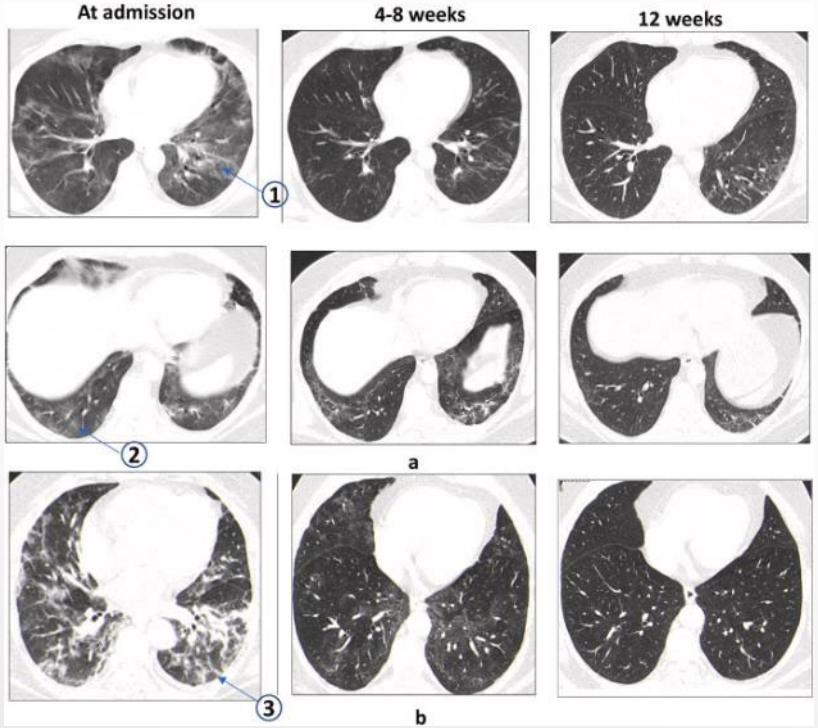


Fig. 2. Serial CT scans of two representative patients, one showing residual reticulations at 10–12 weeks (2a) and the other showing complete radiological resolution (2b)

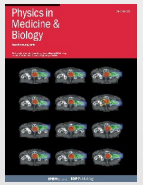
Kavitha Yaddanapudi, MD

PUBLICATIONS

- **Improving imaging and quantification of theranostic radionuclides with AdaptiSPECT-C**. *Sophia Pells, Kesava Kalluri, Micaehla May,* ***Lars Furenlid****,* ***Phillip Kuo****, Robert Licho and Michael King.* Journal of Nuclear Medicine June 2023, 64 (supplement 1) P683

- **CdTe -DSD SPECT-I: an Ultra-High-Resolution Multi-Isotope Tomographic Imager for Mice.** *S Takeda, T Orita, A Yagishita, M Katsuragawa, G Yabu, R Tomaru, F Moriyama, H Sugawara, S Watanabe, H Mizuma, Y Kanayama, K Ohnuki, H Fujii,* ***L Furenlid****, T Takahashi.* IEEE Transactions on Radiation and Plasma Medical Sciences. July 2023, DOI: 10.1109/TRPMS.2023.3291756

- **Mesh modeling of system geometry and anatomy phantoms for realistic GATE simulations and their inclusion in SPECT reconstruction.** *Benjamin Auer[8,1,2], Arda Könik[3], Timothy J Fromme[4], Jan De Beenhouwer[5], Kesava S Kalluri[1], Clifford Lindsay[1],* ***Lars R Furenlid[6]****,* ***Philip H Kuo[7]*** *and Michael A King[1]*. Physics in Medicine & Biology, Volume 68, Number 7 DOI 10.1088/1361-6560/acbde2



Lars Furenlid, PhD

PUBLICATION

- Transcranial Magnetic Stimulation for the Treatment of Chemo Brain Case Report

Phillip H. Kuo *[1],*, Allison Yu-Chin Chen [2] , Rudolph J. Rodriguez [3], Carol Stuehm [4], Pavani Chalasani [5], Nan-Kuei Chen [6] and Ying-Hui Chou [7]*

Sensors 2023, 23(19), 8017;
https://doi.org/10.3390/s23198017

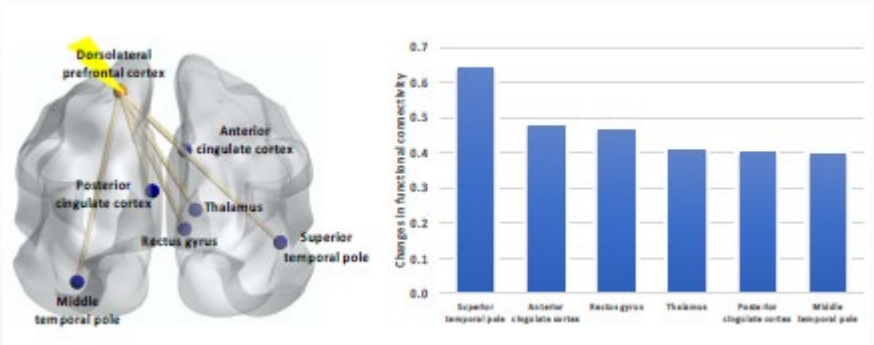
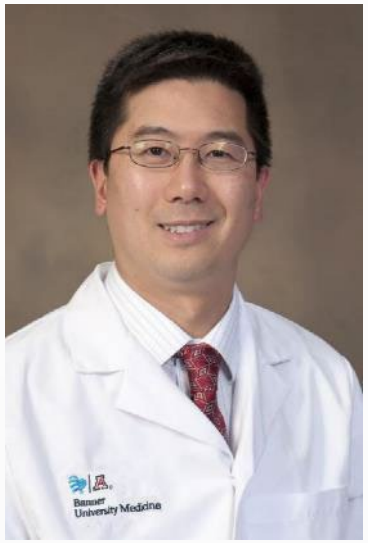


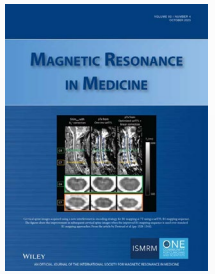
Figure 2. Following iTBS, functional connectivity strength increased between the stimulation site (i.e., the left dorsolateral prefrontal cortex) and the top 6 out of 166 brain regions.



Phillip Kuo, MD, PhD, FACR

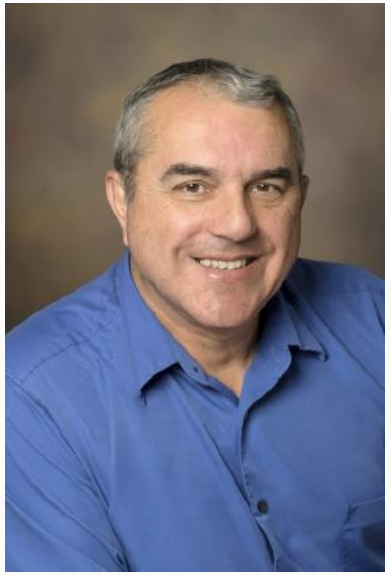
PUBLICATIONS

- Double pulsed field gradient diffusion MRI to assess skeletal muscle microstructure. *Berry DB, Galinsky VL, Hutchinson EB,* ***Galons JP****, Ward SR, Frank LR.* Magn Reson Med. 2023;90(4):1582-1593. https://doi.org/10.1002/mrm.29751



- Nonequilibrium thermodynamics and mitochondrial protein content predict insulin sensitivity and fuel selection during exercise in human skeletal muscle. *Zapata Bustos R, Coletta DK,* ***Galons J-P****, Davidson LB, Langlais PR, Funk JL, Willis WT, Mandarino LJ.* Front Physiol. 2023;14: 1208. https://doi.org/10.3389/fphys.2023.1208186

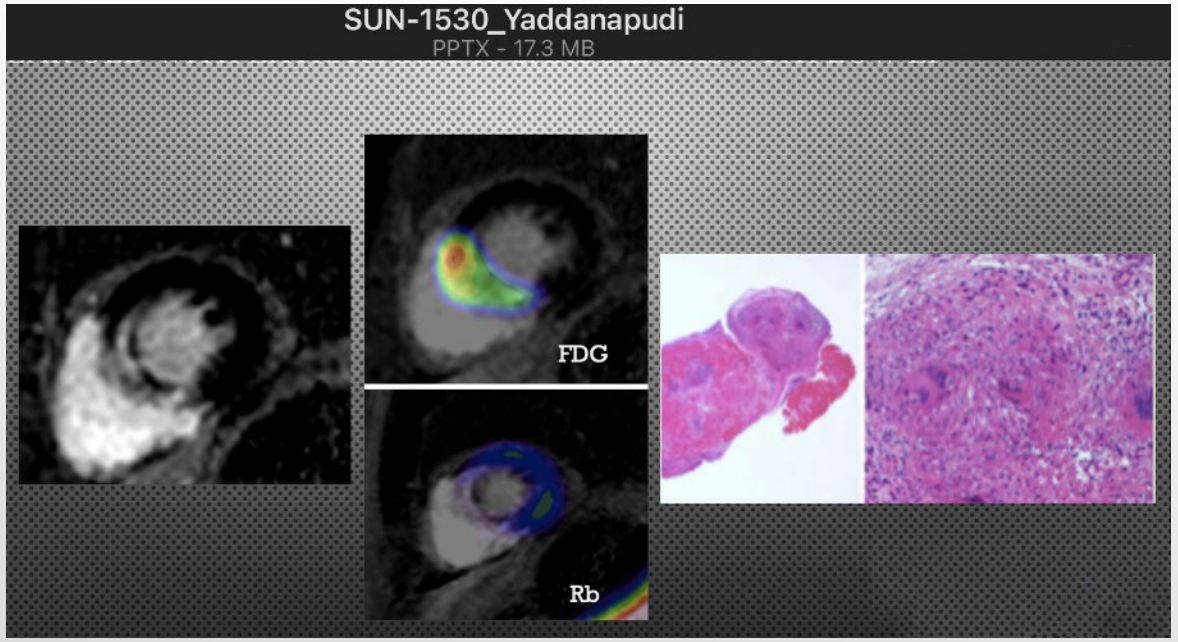
- Systemic deuteration of SCID mice using the water-isotopologue deuterium oxide (D(2) O) inhibits tumor growth in an orthotopic bioluminescent model of human pancreatic ductal adenocarcinoma. *Jandova J,* ***Galons J-P****, Dettman DL, Wondrak GT*. Mol Carcinog. 2023;62(5):598-612. https://doi.org/10.1002/mc.23509



Jean-Philippe Galons, PhD

ANNUAL MEETING PRESENTATION

- *Multimodality Imaging of Sarcoidosis*



Kavitha Yaddanapudi, MD

NASCI
NORTH AMERICAN SOCIETY FOR CARDIOVASCULAR IMAGING

NASCI 2023 Annual Meeting
September 9-12, 2023 • **Scottsdale, Arizona** • The Scott Resort & Spa

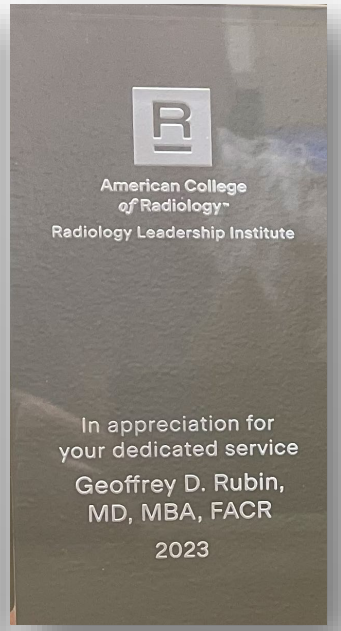
North American Society for Cardiovascular Imaging Keynote Lecturer and Awardee

- **Paulin Keynote Lecture**: *Artificial Intelligence and Cardiovascular Imaging: When is the Revolution?*

Geoffrey Rubin, MD, MBA, FACR, FAHA, FSABI, FNASCI

CONGRATULATIONS

Medical Imaging Chair, **Geoffrey Rubin, MD, MBA, FACR**, **FAHA, FSABI, FNASCI,** was presented with the **RLI Recognition Award** in honor of his tremendous service to the ACR's Radiology Leadership Institute and the field of radiology.



RESIDENT SPOTLIGHT

Dallin Christensen, DO
Chief Resident
DR Program

Where do you call home?

I consider home Logan, Utah which is where my wife and I were both raised and where our parents still reside.

What is the best thing about the field of Radiology?

I am consistently amazed at the diversity of cases we encounter in radiology. I frequently think 'how did I end up sitting here reading about a patient's crazy trauma, cancer, or congenital abnormality?' I'm grateful that I get to work a job as cool and unique as being a radiologist.

What is on the horizon after graduation?

Neuroradiology fellowship at Barrow Neurologic Institute, then we plan on heading closer to home in either southern Idaho or northern Utah.

3 fun facts

1. I have trained/broke several horses. I entered my best horse into the Eastern Idaho State Fair, where she won several blue ribbons.
2. I love snowboarding and one of the biggest reasons I ranked my TY year #1 was because they have a ski patrol elective. I worked with the Ski Patrol for two weeks on Mount Spokane. There was a large storm during the rotation and one of the chair lifts broke. I was able to help evacuate skiers off the lift which was one of the coolest experiences I've had on a mountain.
3. With my children getting older, my wife and I are turning into parents who drive from one sporting event to the next in a Minivan, and I could not love it more!

RESIDENT SPOTLIGHT

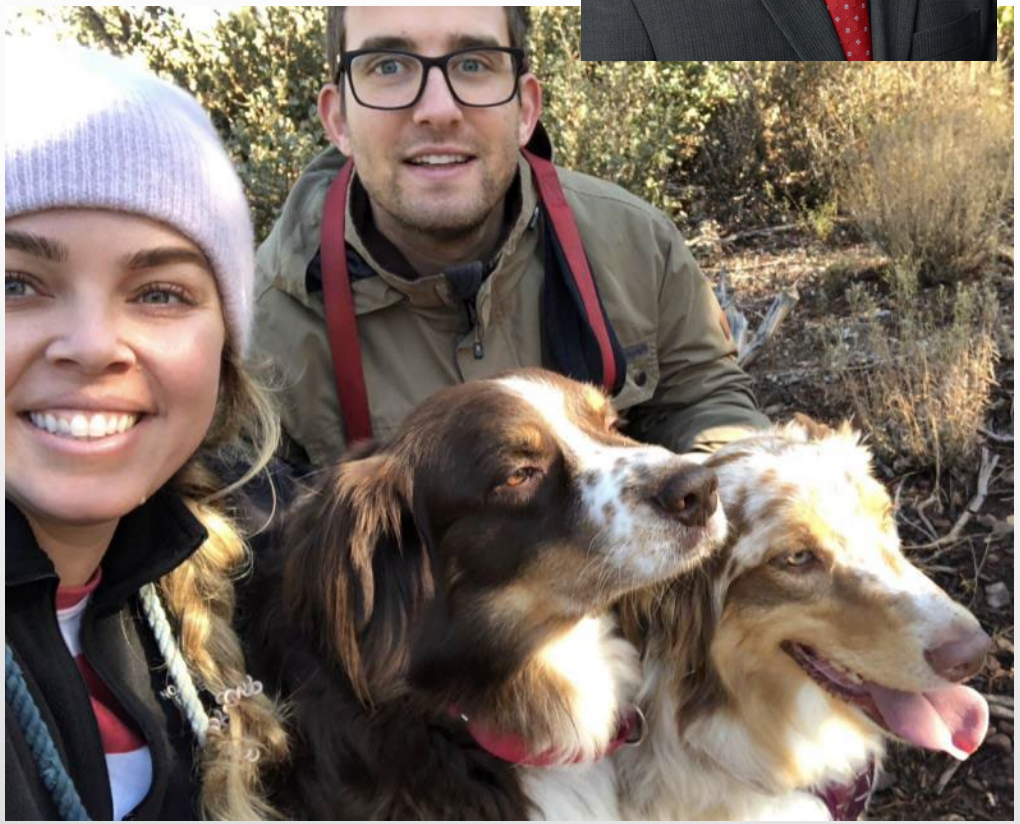
Mark Greenhill, DO
Chief Resident
DR Program

Where do you call home?
Phoenix, Arizona

What is the best thing about the field of Radiology?
Radiology is a unique specialty that allows me to tailor my career to my specific interests. The ability to interpret diagnostic images and perform image-guided procedures affords a flexible and continuously stimulating career. The flexibility to work from home or on-site is also a unique component of radiology. For better or worse, every patient pretty much gets some sort of diagnostic imaging procedure that is crucial in their diagnosis and treatment. Being able to communicate clinically relevant information to clinicians in order to help a patient is something I love about radiology. Also, the job market is awesome right now and I can essentially work anywhere I want, which is a plus. In short, radiology is the best specialty and I love what I do!

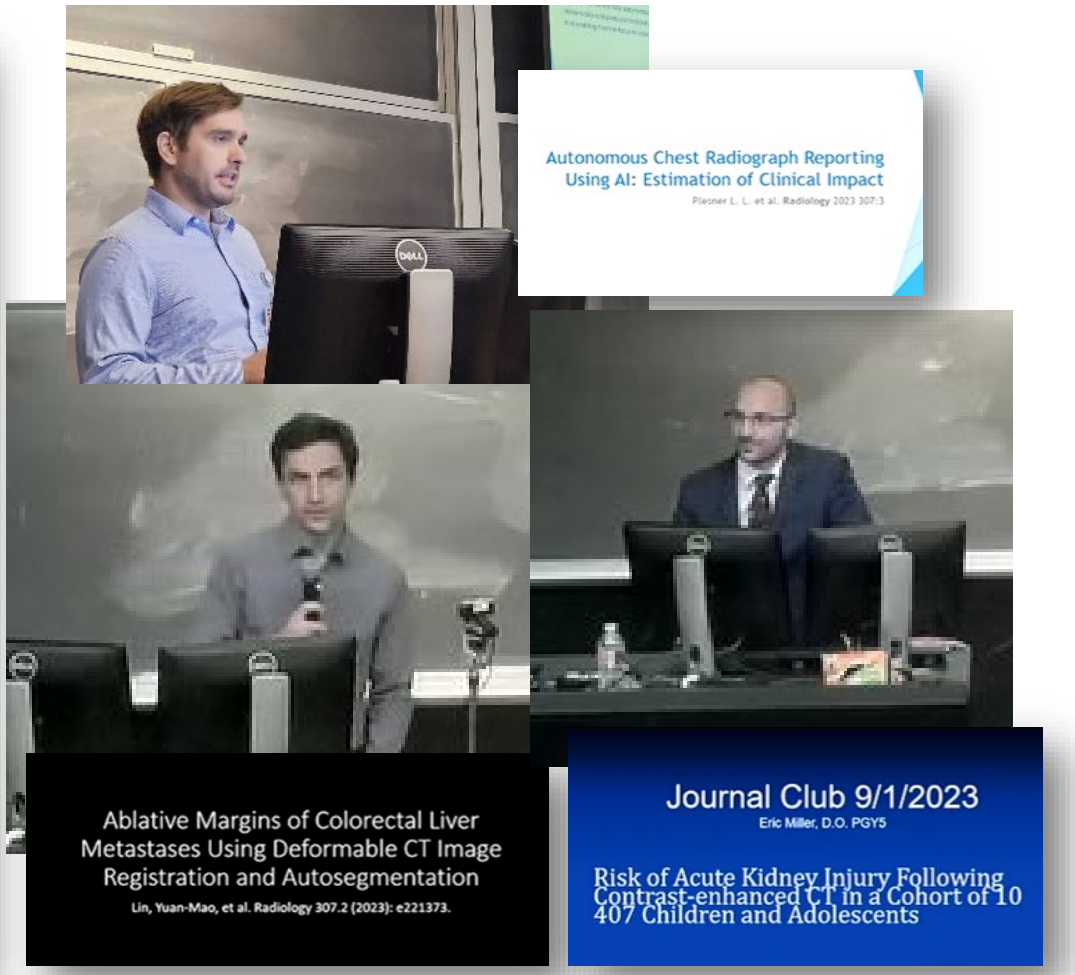
What is on the horizon after graduation?
Heading to Atlanta for a neuroradiology fellowship, then heading wherever my better half matches for residency!

3 fun facts
1. I play bass guitar
2. I've lived in Arizona my whole life
3. I've never been to the Eastern Hemisphere



JOURNAL CLUB MEETING

From left: Carl Sabottke, Zach Fitzgerald, Eric Miller and Chris Miller



LUMBAR PUNCTURE LAB

Dan Lee, MD, conducted a workshop following his two-part Resident lecture about lumbar puncture. Participants were given the opportunity to practice this intricate procedure using a life-like model and a spinal tap instrument tray.

UPCOMING GRAND ROUNDS

Alexander Towbin, MD, FAAP, FACR
Professor, UC Department of Radiology
Cincinnati Children's Hospital Medical Center

presents

Evaluating and Selecting Technology

- Wednesday, October 18, 2023
- 12:30 pm – 1:30 pm
- Streaming in COM-T 2117

COLLEGE OF MEDICINE TUCSON
Medical Imaging
Grand Rounds

Wed. 10/18/23, 12:30 – 1:30 pm, COM-T 2117

Evaluating and Selecting Technology

presented by

ALEXANDER TOWBIN, MD, FAAP, FACR

Radiologist, Department of Radiology and Medical Imaging
Associate Chief Medical Information Officer, (Imaging)
Associate Chief, Department of Radiology (Clinical Operations and Informatics)
Neil D. Johnson Chair of Radiology Informatics
Professor, UC Department of Radiology
Cincinnati Children's Hospital Medical Center

Alex Towbin, MD, FAAP, FACR is a Professor of Radiology, the Neil D. Johnson Chair of Radiology Informatics, Associate Chief of Radiology, and Associate Chief Medical Information Officer at Cincinnati Children's Hospital. He is a recognized leader in pediatric radiology, imaging informatics, and quality improvement. In his clinical role, Dr. Towbin specializes in pediatric abdominal imaging. His research focuses on cancer imaging, imaging of the liver, clinical informatics, and quality improvement.

Dr. Towbin received his medical degree from the University of Cincinnati College of Medicine. He completed his residency in Diagnostic Radiology at the University of Pittsburgh Medical Center and his fellowship in Pediatric Radiology at Cincinnati Children's Hospital.

CME/Attendance Code: 664656
Live streaming via Zoom

OUTCOME OBJECTIVES
1. Identify three variables that impact technology selection
2. List five questions that must be answered prior to procurement
3. Describe a process for selecting a new PACS

ACCREDITATION STATEMENT
The University of Arizona College of Medicine - Tucson is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The University of Arizona College of Medicine - Tucson designates this live activity for a maximum of 1.0 *AMA PRA Category 1 Credit(s)™* . Physicians should claim only the credit commensurate with the extent of their participation in the activity.

DISCLOSURE STATEMENT
All Faculty, CME Planning Committee Members, and the CME Office Reviewers have disclosed that they have no financial relationships with commercial interests that would constitute a conflict of interest concerning this CME activity.

Continuing Medical Education

- The DR and IR Residency program application process has begun!
- Over 850 submissions have been received through ERAS

Next steps:

- Application review
- Residency Interviews begin mid-November

FANTASTIC FEEDBACK

Vice Chair of Education, Dorothy Gilbertson, MD, received a complimentary email from an attending physician in the Department of Medicine.

3rd Year Diagnostic Radiology Resident **RJ Wruble,** was complimented for his enthusiasm and outstanding work interpreting multiple CT Chest studies.

The attending physician also referred to the “great residents in the [Radiology] programs.”

Richard J. Wruble, DO

OUTREACH

Members of the Medical Imaging team organized a collection in support of children and teens in our local community.

Faculty, Residents, Fellows and Staff donated clothes, pajamas, socks and personal hygiene items.

The donations were delivered to the Arizona Department of Child Safety Welcome Center.

Pictured from left: Jen Fischahs, Tammie Anderson and Lexy Torres. Not pictured: Colleen Bell, Janet Black and Kevin Matsunaga and Laurie Shapiro

ARIZONA DEPARTMENT of CHILD SAFETY

BANNER CHILDREN'S SPECIALISTS

Pediatric Imaging Featured

Pediatric Radiology and Interventional Radiology
Diamond Children's Medical Center

David Aria, MD
Specialty: Interventional Radiology

Dorothy Gilbertson, MD
Specialty: Congenital Cardiac Imaging

Brian Lightwine, DO
Specialty: Fetal Radiology

Unni Udayasankar, MD
Specialty: Neuroradiology

Banner University Medical Center Tucson

THE UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE TUCSON
Medical Imaging

TAKING THE LEAD PODCAST

Geoffrey Rubin, MD, MBA, FACR, FAHA, FSABI, FNASCI
Chair and Professor, Medical Imaging

@geoffrubin

CATCHING UP

Medical Imaging's Founding Chair and Acting Chair (for the month of September) had the opportunity to meet.

Pictured left are, **Paul Capp, MD**, and **Dorothy Gilbertson-Dahdal, MD**.

THE MEDICAL IMAGING OFFICE SPACE RENOVATION PROJECT IS UNDERWAY

- **Amy Jennings**, Sr. Program Coordinator, stands outside of the newly sealed off office space in Building 201.
- Tools and supplies now adorn the former entrance to the 1343 offices.

View from inside the MI faculty offices in Building 201:
Wiring and duct work are visible near the ceiling space!

Instagram Post
Kudos & Thanks to IR

Hi Dr. Young,

I hope this email finds you well. I wanted to take a moment to express my sincere gratitude for the incredible experience I had under your guidance during my time at the University of Arizona. The opportunity to work alongside you on research projects and receive hands-on clinical exposure has been nothing short of transformative. Your willingness to teach, answer my queries, and guide me through complex procedures has been instrumental in my growth as a future interventional radiologist.

Given the profound impact you've had on my academic and professional journey, I would be truly honored if you would consider writing a letter of recommendation on my behalf for residency. If so, a separate email request will be coming from ERAS to upload.

Once again, thank you, Dr. Young, for being an inspiring mentor. I look forward to the work on cryoablation and locoregional therapies for SIR & GEST. I also want to extend my gratitude to Melissa Ruiz, who was there coordinating everything even before I got there. Thank you for being there every step along the way.