

RECOGNIZE & REWARD

March 2024



the UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE TUCSON Medical Imaging



Banner University Medical Center

PATENT ISSUED US 11,860,256 B2

Cancellation of streak artifacts in radial abdominal imaging using interference null space projection (**CACTUS**) Inventors: Zhiyang Fu, Maria Altbach, Ali Bilgin





Fu Z, et al. A. Magn Reson Med. 2022 Sep;88(3):1355-1369. doi: 10.1002/mrm.29285. Epub 2022 May 24. PMCID: PMC9973517

CONGRATULATIONS





Evan Unger, MD Professor Emeritus

 Dr. Unger received the RSNA
 Editor's Recognition Award for reviewing with Distinction from

Radiology: Cardiothoracic Imaging
 <u>https://pubs.rsna.org/doi/10.114</u>
 <u>8/ryct.240047</u>

R&R March 2024





PLENARY LECTURE EUROPEAN CONGRESS OF RADIOLOGY FCD2024



Geoffrey Rubin, MD, MBA, FACR, FAHA, FSABI, FNASCI presented the Plenary Lecture during the European Society of Radiology ECR 2024.

View Dr. Rubin's ECR 2024 plenary presentation in full on <u>YouTube</u>





MATCH DAY

Friday, March 15

THE UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE TUCSON Medical Imaging

WELCOME NEW RESIDENTS

All residency positions were successfully filled during the main match.

- We are excited to welcome to our ten (10) new radiology residents for the Diagnostic Radiology and the Interventional Radiology-Integrated Residency Training Programs!
- Thanks to everyone who participated in the 2023-2024 Resident Interview process.

DIVERSITY CHAMPIONS RETREAT

- Dr. Hina Arif, Dr. Sarah Placek and Dr. Rami Sulaiman attended the DEI Restorative Justice training held on March 8.
- Presented by Dr. Pedro Flores, participants explored the history and philosophy of restorative justice (RJ), the three-tier continuum of restorative practices, introductory RJ facilitation skills, and the early outcomes of RJ implementation in healthcare and academic medicine.
- Inspired by their experience, the group plans to create restorative circles in Medical Imaging to build the power of community.



REACCREDITATION

- The Diagnostic-Radiology Residency program was notified of their Continued Accreditation status. Approved for 36 Resident Positions, the program was commended for demonstrating substantial compliance with the program requirements without any new citations.
- The following subspecialty programs associated with DR were also unanimously approved receiving Continued Accreditation status.
 - Abdominal Radiology, 2 positions
 - Neuroradiology, 3 positions
 - Nuclear Radiology, 2 positions
 - Interventional Radiology Independent (with continued accreditation as of 1/26/2023, this program is not due for review)

The Interventional Radiology - Integrated Residency program was notified of their Continued Accreditation status. Approved for 5 Resident Positions, the program was commended for demonstrating substantial compliance with the program requirements without any new citations.



INNQVATION STORIES: NEURORADIOLOGY

The <u>Division of Neuroradiology</u> is making a dramatically positive impact on patient care in two distinct areas:

- Pain Management: The team commonly performs Interventional Pain Management procedures such as Interlaminar Epidural, Transforaminal Epidural and Sacroiliac Joint Steroid Injections, which provide more patients timely relief to often chronic and debilitating pain.
- Improved Stroke Detection: Implementation of cutting-edge technology (Automated NASCET Calculation with Vitrea), enables the division to provide better calculations related to carotid stenosis, resulting in better treatment options.

Other impactful contributions to patient care involve a new Lumbar MRI Survey, and the utilization of Post Contrast FLAIR on Brain Surface Enhancement. Plus, the division is working on implementing Bone MRI for work up of children with craniosynostosis, which may save these patients from unnecessary radiation exposure.



Automated NASCET Calculation with Vitrea





Abstract No. 124 Sequelae of Splenic Embolization by Age: A Retrospective Analysis

J. Ref, E. Yee, L. Struycken, D. Goldberg, G. Woodhead, S. Young and J. Hannallah

March 2024 | Journal of Vascular and Interventional Radiology

DOI: <u>10.1016/j.jvir.2023.12.155</u>



Lucas Struycken, MD, Dan Goldberg, MD, Greg Woodhead, MD, PhD, Shamar Young, MD, and Jack Hannallah, MD





Neighborhood social vulnerability and disparities in time to kidney cancer surgical treatment and survival in Arizona

Celina I. Valencia, Patrick Wightman, Kristin E. Morrill, Chiu-Hsieh Hsu, **Hina Arif-Tiwari**, Eric Kauffman, Francine C. Gachupin, Juan Chipollini, Benjamin R. Lee, David O. Garcia, Ken Batai 24 February 2024 | Wiley Online Library https://doi.org/10.1002/cam4.7007



Celina Valencia, DrPH and Hina Arif-Tiwari, MD, FSAR



An eNAMPT-neutralizing mAb reduces postinfarct myocardial fibrosis and left ventricular dysfunction

Zhonglin Liu ^{a b}, Saad Sammani ^c, **Christy J. Barber** ^b, Carrie L. Kempf ^d, Feng Li ^a, Zhen Yang ^a, Rosendo T. Bermudez ^c, Sara M. Camp ^d, Vivian Reyes Herndon ^c, **Lars R. Furenlid** ^b, Diego R. Martin ^a, Joe G.N. Garcia ^d

January 2024 Biomedicine & Pharmacotherapy 170:116103 DOI: 10.1016/j.biopha.2023.116103





Lars Furenlid, PhD and Christy Barber

Value Creation Through Artificial Intelligence and Cardiovascular Imaging: A Scientific Statement From the American Heart Association

Kate Hanneman, David Playford, Damini Dey, Marly van Assen, Domenico Mastrodicasa, Tessa S. Cook, Judy Wawira Gichoya, Eric E. Williamson, **Geoffrey D. Rubin** and on behalf of the American Heart Association Council on Cardiovascular Radiology and Intervention; and Council on Lifelong Congenital Heart Disease and Heart Health in the Young Circulation Volume 149, Issue 66 February 2024 https://doi.org/10.1161/CIR.00000000001202



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

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R&R March 2024









Society of Interventional Radiology (SIR) Annual Meeting 2024 March 23 - 28



3/23: General IR Extreme IR: Soft Landing or Uncontrolled Freefall?

 Coordinator: Michael D. Dake, MD University of Arizona



3/24: Interventional Oncology Oncologic Liver Interventions 1 Moderator: Shamar Young, MD University of Arizona



3/24: Interventional Oncology Preliminary Analysis of Radiomics for Y90 Outcome Prediction in Hepatocellular Carcinoma Author/Co-author: Navjit Dullet, DO University of Arizona (Class of 2023)



3/25: Thermal ablation of hepatocellular carcinoma: Does it matter weather you use heat or cold?

- Author/Co-author: Shamar Young, MD University of Arizona
- Presenting Author: Tiffany Shamas, BS UArizona
- Author/Co-author: Lucas C. Struycken, MD UArizona, Jack Hannallah, MD, MBA, MPH – UArizona, Daniel Goldberg, MD – UArizona, Gregory J. Woodhead, MD, PhD – UArizona



3/25: Gastrointestinal Interventions Endovascular Management of Visceral Vein Obstruction: Technical Consideration, and Factors Associated with Failure

Author/Co-author: Shamar Young, MD
 University of Arizona



3/25: Embolization 1

 Moderator: Shamar Young, MD University of Arizona



2024 SALT LAKE CITY SIRpass the summit

3/25: Women's Health

Tubal catheterization with a miniature triple-modality optical falloposcope: A future IR procedure?

 Author/Co-author: Andrew Rocha, BS, College of Optical Sciences, UArizona, William Drake, BS, College of Optical Sciences, UArizona, Dominique Galvez, BS, College of Optical Sciences, UArizona, Photini Rice, MS – BME, UArizona, Mary Reed, MS – UArizona, Lucas C. Struycken, MD – UArizona, John Heusinkveld, MD – OB-GYN UArizona, Jennifer Barton, PhD – Dept. of Biomedical Engineering, UArizona

3/25: Arterial Interventions and Peripheral Arterial Disease (PAD) Sequelae of Splenic Embolization by Age: A Retrospective Analysis

- Presenting Author: Erika Yee, BS, UArizona, COMT
- Author/Co-author: Lucas C. Struycken, MD UArizona, COMT, Daniel Goldberg, MD – UArizona, Gregory J. Woodhead, MD, PhD – UArizona, Shamar Young, MD – UArizona, Jack Hannallah, MD, MBA, MPH – UArizona



3/25: Applications of Optical Coherence Tomography (OCT) in Interventional Radiology: An Educational Exhibit

 Author/Co-author: Bradford J. Wood, MD, FSIR – NIH, Lucas C. Struycken, MD – UArizona, B-UMCT, Jennifer Barton, PhD – Dept. of Biomedical Engineering, UArizona



3/25: Arterial Interventions and Peripheral Arterial Disease (PAD) Is Pedal Access The New Radial Access?

- Abstract Presenter: Troy Weinstein, BS UArizona COMT
- Author/Co-author: Jacob Ref, BS UArizona, Lucas C. Struycken, MD – UArizona, COMT, David J. Schaub, BS – UArizona, Brandon Nguyen, BS, MS – UArizona COMT, Conner Reynolds, DO – UArizona, Michael Lee, MD – UArizona COMT, Daniel Goldberg, MD – UArizona COMT, Gregory J. Woodhead, MD, PhD UArizona COMT, Shamar Young, MD – UArizona COMT, Jack Hannallah, MD, MBA, MPH – UArizona



SIRpass the summit

3/25: Interventional Oncology

The Perks and Pitfalls of the SEER/NCDB Databases In Supplementing Observational Research in the Field of Interventional Oncology Abstract Presenter: David J. Schaub, BS – University of Arizona Author/Co-author: Jacob Ref, BS – UArizona, Troy Weinstein, BS – UArizona, Brandon Nguyen, BS, MS – UArizona, **Daniel Goldberg, MD** – UArizona, Jack Hannallah, MD, MBA, MPH – UArizona, Shamar Young, MD – UArizona, Gregory J. Woodhead, MD, PhD – UArizona, Lucas C. Struycken, MD – UArizona



3/26: General IR

IR can survive as an independent clinical practice: Yes or No?

 Panelist: Michael D. Dake, MD (he/him/his) University of Arizona



3/26: Portal Hypertension

Multicenter Prospective Registry Analysis of Current Practice Patterns in Transjugular Portosystemic Shunt (TIPS) Creation in North America

 Author/Co-author: Shamar Young, MD University of Arizona



3/26: Portal Hypertension

Impact of Intracardiac Echocardiography on Portal Vein Access during TIPS Placement and its Effect on Outcomes: a Multicenter Prospective Registry Analysis

• Author/Co-author: Shamar Young, MD University of Arizona



INTERACTIVE RESEARCH SEMINAR

March 20 | 1:00 pm | MRB 102

- New and exciting research projects on the Vevo 3100 + LAZR-X
- Learn more: HFUS Core Facility (TBIR)

Advanced Ultrasound & Photoacoustic Imaging for Your Research

<u>When/Where:</u> Wed, March 20 at 1pm in MRB 102 (Interactive Seminar) <u>Who:</u> Profs. Russell Witte and Terry Matsunaga on behalf of HFUS Core Team in BSRL <u>Why:</u> Promote New Research Projects in Cardiac, Cardiovascular, Cancer Research and Beyond



- Mapping myocardial O₂ consumption
 Multifunctional imaging of tumors
- Myocardial injury with microbubbles
 Drug Discovery
- Vascular mapping of Vessels & Nodes
- Pharmokinetics and Perfusion
- Smart contrast agents, nanotechnology
- Molecular biology contact: rwitte@arizona.edu



Russell Witte, PhD and Terry Matsunaga, PhD

HFUS Core Facility (TBIR)

- Russell Witte PhD, Medical Imaging
- · Beth Hutchinson, PhD, Biomed. Engineering
- Chris Banik PhD, Physiology
- Terry Matsunaga Pharm, Medical Imaging
- Nam Lee PhD, Pharmacology
- Jeff Pyun PhD, Chemistry
- Brenda Baggett (Manager)
- Andy Rouse, PhD (Director, TBIR)

STARFISH AWARDS

- The Autism Society of Southern Arizona's Jade Munsey presented two Starfish Awards to Medical Imaging staff members this month.
- The society's Starfish Award honors those who contribute to the autistic community.
- Maria Telles, PhD and Jennifer Fischahs are pictured with Jade, right.





RESIDENT SPOTLIGHT

Where do you call home?

I was born in Baltimore, Maryland and moved to Sooner State (Oklahoma) at a young age. I grew up in Tulsa enjoying the lakes and rolling hills, but lived in many places where the wind comes sweepin' down the plain. Ultimately, my family and I agree, home is where we make it and we have enjoyed our time in many different areas.

What is the best thing about the field of Radiology?

I enjoy the challenge of Radiology, evaluating cases and putting the pieces together to provide, or hope to provide, answers. I am excited about the opportunities and advancements being made in the field and look forward to being involved in translational research very soon.

What is on the horizon after graduation?

I'm excited about hopping on the I-10 and heading to Phoenix for a Breast Imaging Fellowship at Mayo Clinic.

Fun facts

- I have an amazing wife and four kids that brighten up the day. I enjoy family outings to the ZOO, swimming, aquariums, and parks.
- I enjoy being home with family playing games and watching movies, which is pretty amazing.
- I also enjoy snowboarding and I accept the fact that my wife is better (at it) than me.







RESIDENT SPOTLIGHT

Where do you call home?

The muddy banks of the Kalama River

What is the best thing about the field of Radiology?

Getting to work with my hands, rad-path correlation, being a patient facing radiologist

What is on the horizon after graduation?

Private practice in Santa Fe, NM

Fun facts

- I don't own a car- I bike everywhere in beautiful Tucson, AZ
- I have a wonderful 8-year-old daughter
- I had a high-risk exposure to simian B herpesvirus in Brooklyn NY and lived to tell the tale





David McNiel, MD, PhD IR-Integrated



Resident Group Photo 2023-2024

RESEARCH DAY

Research Day 2024 was a huge success! Thank you to our Keynote speaker, Meghan Lubner, MD, and many congratulations to the 16 Diagnostic and Interventional Radiology Resident presenters!



Nicholas Barney, MD	Lung Cancer Associated with Cystic Spaces
Anish Bhandari, MD	Comparative Analysis of Carotid Stenosis
	Quantification Methods
Caleb Boehler, DO	Extramedullary Plasmacytoma of the Maxillary
	Sinuses in a Patient with Multiple Myeloma
Tristan Cooper-Roth,	Declawed: A Review of Lesser Toe Deformities
DO	and Treatment
Zachary Fitzgerald, MD	Cryoablation in the Liver: How Accurately Does
	the Ice-ball Predict the Ablation Zone?
Kristin Jecius, MD	Baclofen Intrathecal Pump Catheter Tip
	Granuloma
Salil Kalarn, DO and	Can Pre-Therapy PSMA PET/CT Predict
Sarah Fermawi, MD	Response?
Michael Lee, MD	T1b Renal Cell Carcinoma: Is Cryoablation a
	Viable Option?
David Supeck, DO, PhD	Using Conductivity Imaging to Improve
and Eric Miller, DO	Specificity of DWI in Breast MRI
Sarah Placek, DO	latrogenic Pulmonary Artery Pseudoaneurysm
	after Mechanical Thrombectomy for Pulmonary
	Embolism
Conner Reynolds, DO	Utilizing DSC MR Perfusion Images for
	Evaluation of Hemorrhagic Transformation after
	Mechanical Thrombectomy with Heidelberg
	Grading and Comparison to SWI, GRE and CT
Sanjog Singh, MD	A Tale of Two Devices: Comparing Manual and
	Drill Bone Marrow Biopsy Devices
Evan Sommer, MD, MBA	Evaluation of the Accuracy and Efficiency of
	Virtual Reality Diagnosis of Pulmonary
	Embolism
RJ Wruble, DO	Benign Metastasizing Leiomyoma in the Right
	Ventricle and Lungs

March 30 Celebrating Doctors Day

We applaud our clinical and research faculty for their many contributions and dedication to excellence.

MI hosted a faculty appreciation luncheon to launch Research Day 2024.



Stephen Davidson



Tyson Chadaz, MD, and the Wellness Committee organized a fun getaway to the mountains on March 23

J'Rick Lu



Research Day + Faculty Appreciation Luncheon



Research Day + Faculty Appreciation Luncheon



Research Day 2024













One Weekend Outside of Tucson...



Residents Mark Greenhill, Guillermo Alfonso, Stefano Natali & Phil Losada met up with Unni Udayasankar, MD while in Las Vegas for a presentation. Coincidentally, Dorothy Gilbertson MD was there also, (though not pictured,) participating in a ballroom dance competition.