

2-year Research Residents Current and Past

2022-2024

Robin Wright, MD

MD Anderson Surgical Oncology T32 Research Fellowship

2020-2022

Joyce Pang, MD

Surgical Education Research

University of New Mexico

Years of Research: 2020-2022

Faculty Mentors: Dr. Frances Alba, Dr. Amalia Cochran, Dr. Bridget Fahy, Dr. Ben Ferguson, Dr. Jasmeet Paul, Dr. Sarah Popek, Dr. Vinay Rai, Dr. John Russell, Dr. JP Sanchez, Dr. Ming-Li Wang

Work: My research primarily has been in medical education, evaluating the experiences of medical students and residents with the learning environment. I have a particular interest in the intersection of diversity, equity, and inclusion with education, and am also interested in the impact of socioeconomic factors and colorectal outcomes. In addition to this, I pursued coursework in qualitative and educational research and became involved nationally with the RAS ACS Education Committee and the ASE DEI Task Force during my research years.

Positions: LEO Education Fellow (2020-2022), SERF Fellowship (2021-2022)

National Presentations:

Pang, J., Kano, M., Esguerra, S., Nguyen, F., Pickett, B., Wang, M.L. Medical Student Perspectives and Shelf Performance on Virtual Clerkships During the COVID-19 Pandemic. Western Surgical Association 129th Scientific Session. Indian Wells, CA 2021. *Mini Oral Podium Presentation*

Pang, J., Pickett, B., Esguerra, S., Nguyen, F., Pepin, R., Maes, D., Wang, M.L. Impact of a Virtual Surgery Clerkship on Medical Student Shelf Exam Performance During COVID-19. 16th Annual Academic Surgical Congress. Virtual, 2021. *QuickShot Video Presentation*

Publications:

Pang J, Navejar N, Sánchez JP. Mistreatment in residency: intervening with the REWIND communication tool. *MedEdPORTAL*. 2022;18:11245. <https://doi.org/10.15766/mep.2374-8265.11245>

Pang, J.H., Finlay, E., Fortner, S., Pickett, B., Wang, M.L. Teaching Effective Informed Consent Communication Skills in the Virtual Surgical Clerkship. *J Am Coll Surg*. 2021; 233(1): 64-72.e2.

Pang, J.H., Jones, Z., Myers, O., Popek, S. Long Term Sexual Function Following Rectal Cancer Treatment. *Am J Surg*. 2020;220(5): 1258-1263

Rebecca Williams-Karnesky, MD, PhD

Surgical Education Research

University of New Mexico

Years of your research - 2018-2020

-Faculty mentor/s –

Dr Ming-Li Wang, Dr John Russell, Dr Jasmeet Paul, Dr Felisha Rojan-Minjares, Dr Elizabeth Lawrence, Dr Brigitte Smith (University of Utah)

-A brief description of the work that you did, no more than 2 paragraphs

Dr. Williams-Karnesky's current research examines the intersectionality of surgeon wellness, engagement in teaching, and learner mistreatment. Her current research focuses on characterizing aspects of the surgical learning environment that motivate residents and faculty to teach, and medical students to learn. Dr. Williams-Karnesky is also interested in understanding how mindfulness and compassion practices can be used to increase personal resilience and change culture in surgery.

-Any additional positions/degrees (ie SERF fellowship) -

-M.A., Educational Psychology, with Distinction, May 2020

-*Learning Environment Office Research Fellow*, UNM School of Medicine, July 2019- June 2020

-*Surgical Education Research Fellow*, Association for Surgical Education, July 2018-July 2020

-Any major national presentations -

1. Williams-Karnesky RL, "Operative Autonomy during Residency: The resident Perspective", *American College of Surgeons Clinical Congress*, Virtual, October 2021
2. Williams-Karnesky RL, Krumeich L, Wachtel H, Fraker DL, Wirtalla C, Venuto FA, Sellers P, Kelz RR, "Data to Inform Counseling on Parathyroidectomy for Secondary Hyperparathyroidism of Renal Origin", *Annual Meeting of the American Association of Endocrine Surgeons*, Birmingham, AL, April 2021
3. Williams-Karnesky RL, "Psychological safety as a framework for creating a positive clinical learning environment: An example of success on the surgery clerkship" *International Conference on Physician Health*, London, England, April 2021
4. Williams-Karnesky RL, Kashyap M, Courtney C, Park C, Ritter K, Hanke R, Ochoa J Sonntag CC. "Shoring up the pipeline: Increasing diversity in surgery by enhancing equity and inclusivity in the surgical learning environment", *American College of Surgeons Quality and Safety Conference*, Virtual, July 2020
5. Williams-Karnesky RL, Paul JS, Russell JC, Wang ML. "Psychological safety as a framework for addressing medical student mistreatment on the surgical clerkship" *Association for Surgical Education*, Seattle WA, April 2020
6. Williams-Karnesky RL, Norii T, Tatlock M, "The Pause: Learning to move forward mindfully", Thinking outside the Box video presentation, *Association for Surgical Education*, Seattle WA, April 2020
7. Williams-Karnesky RL, Russell JC, Wang ML, "More than aligning perceptions: Medical student mistreatment and psychological safety on the surgical clerkship" *Western Surgical Association*, Las Vegas NV, November 2019

8. Williams-Karnesky RL, Wang ML, Paul JS, Lawrence EC, "Implementation of a resident-led mindfulness course during the surgical clerkship", *American College of Surgeons Clinical Congress*, San Francisco CA, October 2019
 9. Williams-Karnesky RL, Ketteler E, Fahy B. "Discussing Death: Examining the Ethical and Emotional Effects of Adverse Events," *Association for Surgical Education*, Chicago IL, April 2019
 10. Williams-Karnesky RL, Greenbaum A, Lawrence EC, Paul JS, "CORE7: Development of a comprehensive wellness curriculum for general surgery residents at a safety-net academic medical center," *International Conference on Physician Health*, Toronto Canada, October 2018
- 3 publications that reflect your work
1. Williams-Karnesky RL, John C Russell, Ming-Li Wang. "More than aligning perceptions: The impact of an educational intervention on mistreatment reporting on the surgical clerkship". *Journal of the American College of Surgeons*, July 1, 2020, 231(1): 112-121.E2 <https://doi.org/10.1016/j.jamcollsurg.2020.03.029> Epub 12 April 2020.
 2. Williams-Karnesky RL, Greenbaum A, Paul JC. "Surgery resident wellness programs: The current state of the field and recommendations for creation and implementation", *Advances in Surgery*, June 24, 2020, 54:149-171. <https://doi.org/10.1016/j.yasu.2020.05.005>
 3. Williams-Karnesky RL, Paul JS, Ketteler E, Russell JC. "Optimizing the educational value of surgical morbidity and mortality conference with the addition of an interesting teaching case", *Journal of the American College of Surgeons*, 231(4):e197. <https://doi.org/10.1016/j.jamcollsurg.2020.08.524>

Robin Osofsky, MD

Vascular Research

University of New Mexico

- **Years of your research**
 - 2019 -2021
- **Faculty mentor/s**
 - Ross Clark, Ali Rana, Leanne Chavez, Richard Miskimins
- **Description of Research**
 - During my two years of dedicated research, I have been fortunate enough to participate in a variety of projects in vascular surgery, critical care, trauma, 3D printing, surgical hydrodynamics, and wound healing. My vascular surgery research has focused on carotid body tumors, percutaneous arteriovenous fistulas, and the comparison of trauma vs vascular surgery management of lower extremity arterial trauma. I have taken advantage of UNMH's robust extracorporeal membrane oxygenation program I explored the clinical impact of performing early protocolized whole body CT scan for patients requiring **extracorporeal cardiopulmonary resuscitation. Additionally, I have explored surgical applications in 3D printings with specific applications to otolaryngology, trauma, and vascular surgery. As part of the basic sciences components of my research time, I have been involved in two projects that** investigate the role of hydrogen sulfide in wound healing and angiogenesis. The focus of these projects has been to develop and novel device to

detect **transdermal hydrogen as well as develop an** implantable biocompatible sulfide-eluting matrix to augment wound healing.

Over my research fellowship I have been involved in 8 publications, with 3 submitted, and 7 in preparation. Additionally, I have been given over 20 presentations at national conferences and been an invited guest speaker at 4 occasions. I have received a 4 first place awards and two travel scholarships for my presentations. I have had 3 intramural grants awarded during my research period. Most recently, I have become a part of the popular vascular surgery podcast, *Audible bleeding*, where I have co-hosted and developed 3 episodes. I am grateful to the Department of Surgery for allowing me to pursue this research fellowship.

- **Awards**

- 2020 2019- 2020 Top ABSITE Score Percentile Award, University of New Mexico School of Medicine General Surgery Residency Program. June 2020.
- 2020 1st Place, Dr. Donald Fry Resident Research Award, Resident Research Competition, University of New Mexico Department of Surgery, June 2020.
- 2020 1st Place – Resident Paper Competition for the New Mexico Regional Committee on Trauma for: *“Integration of transportation and trauma databases to identify effects of signaled vs non-signaled street crossings on pedestrian injury severity”*. November 2020
- 2020 1st Place – Resident Paper Competition for the Region VI Regional Committee on Trauma Paper for: *“Integration of transportation and trauma databases to identify effects of signaled vs non-signaled street crossings on pedestrian injury severity”*. November 2020
- 2021 Awardee of the Mattox Vegas Trauma, Critical & Acute Surgery (TCCACS) resident scholarship. February, 2021.
- 2021 2020 - 2021 Top ABSITE Score Award, University of New Mexico School of Medicine General Surgery Residency Program.
- 2021 Top graded abstract for critical care of the 66th annual American Society of Artificial Internal Organs (ASAIO) awardee for *“Utility Of Protocolized Whole-body Ct Imaging Following ECMO Cannulation For Cardiac Arrest”*. Washington, DC. June 10-12, 2021.
- 2021 ASAIO Kolff Award, at the 66th American Society of Artificial Organs (ASAIO) Annual Conference. *“Utility Of Protocolized Whole-body Ct Imaging Following ECMO Cannulation For Cardiac Arrest”*. Washington, DC. June 10-12, 2021
- 2021 1st Place – Phil Jacobs Resident Award during Rocky Mountain Vascular Society 41st annual meeting for: *“Early Real-World Comparison of Ellipsys Percutaneous Arteriovenous Fistulas to Surgically-Created Fistulas”*. July 2021
- 2021 University of New Mexico School of Medicine Learning Environment Office “Exemplary Teacher Award”.

- **national presentations**

- **Osofsky, R**, Byrd, D, Reagor, J, Das Gupta, J, Clark, R, Owen, J, Marek, J, Langsfeld, M, and Chavez, L. *Early real-world comparison of Ellipsys percutaneous arteriovenous fistulas to surgically-created fistulas*. Presented at the 35th Annual Western Vascular Society Meeting. Virtual Meeting. September 2020.
- **Osofsky R**, Owen, Clark, R, Das Gupta, J, Kraai, E, Rana, M, Marinaro, J, Guliani, S. *Predictive Factors Of Cannula-Associated Limb Ischemia (CALI) In Venoarterial*

- Extracorporeal Membrane Oxygenation (VA-ECMO) Patients.* Presented at the 35th Annual Western Vascular Society Meeting. Virtual Meeting. September 2020.
- **Osofsky, R,** Simon, W, White, J, Ferenchak, N, West, S, Miskimins, R. *Integration of transportation and trauma databases to identify effects of signaled vs non-signaled street crossings on pedestrian injury severity.* Presented Region 6 Committee on Trauma Resident Research Competition. Virtual Meeting, November 2020.
 - **Osofsky, R,** W. Simon, J. White, N. Ferenchak, T. Reed, R. Clark, J. Paul, R. Miskimins *Transportation and Trauma Database Integration: Effects of Signaled Crosswalks on Pedestrian Injury.* Presented at the 2021 Academic Surgical Congress. Virtual Meeting. February 2021.
 - **Osofsky, R,** Guliani, S, Ramey, S, Fisher, A, Miskimins, R, Clark, R, Rana, M. *Vascular Surgery Role in Vascular Trauma: 11-year Analysis of Peripheral Vascular Trauma Management at a Level-1 Trauma Center.* Accepted as podium presentation at the 46th annual Southern Association for Vascular Surgery (SAVS), January 19-22, 2022. Manalapan, FL.
 - **Osofsky, R,** Owen, B, Elks, W, Das Gupta, J, Clark, R, Kraai, E, Rana, M, Marinaro, J, Guliani, S. *Utility Of Protocolized Whole-body Ct Imaging Following ECMO Cannulation For Cardiac Arrest.* Accepted as top graded abstract podium presentation. 66th annual American Society of Artificial Internal Organs (ASAIO). Washington, DC. June 10-12, 2021.
- **3 publications that reflect your work**
 - **Osofsky, Robin*;** Owen, Bryce*; Elks, Whitney*; Das Gupta, Jaideep*; Clark, Ross*, †; Kraai, Erik‡; Rana, MUhammAd Ali*, †; Marinaro, Jonathan§; Guliani, Sundeep*, †, § Protocolized Whole-Body Computed Tomography Imaging After Extracorporeal Membrane Oxygenation (ECMO) Cannulation for Cardiac Arrest, ASAIO Journal: November 2021 - Volume 67 - Issue 11 - p 1196-1203. doi: 10.1097/MAT.0000000000001516
 - **Osofsky R,** Byrd D, Reagor J, Das Gupta J, Clark R, Argyropoulos C, Fabre A, Owen J, Marek J, Rana MA, Langsfeld M, Chavez L. Initial Outcomes Following Introduction of Percutaneous Arteriovenous Fistula Program with Comparison to Historical Surgically Created Fistulas. *Ann Vasc Surg.* 2021 Feb 4:S0890-5096(21)00101-1. doi: 10.1016/j.avsg.2020.12.041. PMID: 33549799.
 - **Osofsky R,** Ferenchak NN,. Police-reported pedestrian crash matching and injury severity misclassification by body region in New Mexico, USA. *Accid Anal Prev.* 2022;167:106573. doi:10.1016/j.aap.2022.106573

Arshia Arshard
Pediatric Surgery Research
University of Texas- Houston

-Years of your research:
 2019-2021

-Research Position/Faculty Mentor:

The University of Texas Health Science Center at Houston McGovern Medical School
Center for Surgical Trials and Evidence-based Practice (C-STEP)

Postdoctoral Research Fellowship in Surgical Outcomes

Chair: Kevin P. Lally, MD, MS, FACS

Program Director and PI: KuoJen Tsao, MD, FACS

-A brief description of the work that you did, no more than 2 paragraphs

The tenure of my research fellowship was under the guidance of Dr. KuoJen Tsao in the Department of Pediatric Surgery at the McGovern Medical School at UTHealth and Memorial Hermann Children's Hospital. I was also a student of the Master's in Clinical Research program under the Center for Surgical Trials and Evidence-based Practice (C-STEP). My research focused on patient outcomes, safety, and opioid reduction, with a particular focus on patients undergoing surgical repair of pectus excavatum.

The project I am most proud of completing during this time was a multi-center retrospective cohort study, encompassing 20 hospitals and 898 patients, studying the effect of cryoanalgesia use in patients undergoing minimally invasive repair of pectus excavatum. I was the lead investigator for this study, with major contributions to the conception and design, organizing the study team members and helping with data acquisition, analyzing the data, and drafting the manuscript. We found that the use of cryoanalgesia during minimally invasive repair of pectus excavatum was associated with lower postoperative opioid requirements and length of stay without increasing complication rates. I presented the data from this study as a podium presentation at the American Pediatric Surgical Association (APSA) annual meeting and the manuscript of this work has been accepted for publication by the Annals of Surgery.

-Any additional positions/degrees (ie SERF fellowship)

The University of Texas Health Science Center at Houston McGovern Medical School
Master of Science in Clinical Research

-Any major national presentations

Podium: S. Arshad, E. Garcia, E. Avritscher, A. Aranda, L. Camp, D. DeUgarte, J. Gander, E. Gross, S. Islam, M. Kabeer, M. Kallis, M. Kumar, J. Marquart, L. Plumblee, K. Reichard, H. Richards, S. Scholz, B. Slater, S. St. Peter, K. Stephenson, K. Vali, I. Zamora, K. Tsao, Pediatric Surgery Research Collaborative (PedSRC); Multicenter Assessment of Cryoanalgesia Use in Minimally Invasive Repair of Pectus Excavatum; American Pediatric Surgical Association: Annual Meeting; Virtual, July 7, 2021

Podium: S. Arshad, N. Hebballi, E. Avritscher, S. John, R. Lopus, K. Tsao, A. Kawaguchi; A Cost-Effective and Safe Quality Improvement Initiative for Pediatric Intussusception; American Pediatric Surgical Association: Annual Meeting; Virtual, May 21, 2021 (Finalist: APSA Quality, Safety and Value in Surgery Award)

Podium: S. Arshad, D. Ferguson, G. Hatton, L. Li, M. Austin, A. Kawaguchi, K. Tsao; Increasing Utilization of Video-Assisted Thoracic Surgery in the Treatment of Congenital Pulmonary Lesions: Evaluating Trends in Surgical Management and the

Effect on Outcomes in NSQIP-Pediatric; American College of Surgeons Clinical Congress; Chicago, IL, October 4, 2020

Podium: S. Arshad, E. Garcia, D. Ferguson, H. Ahmad, R. Papanna, E. Bergh, M. Austin, K. Tsao; Prediction of early emergent/urgent surgery for neonates with prenatal concern for congenital pulmonary airway malformation; American Academy of Pediatrics: National Conference & Exhibition; San Diego, CA, October 3, 2020

-3 publications that reflect your work

S. Arshad, E. Garcia, C. Bell, E. Avritscher, M. Kumar, P. Brahmamdam, J. Fraser, S. St. Peter, A. Aranda, M. Hill, J. Marquart, K. Arendonk, L. Plumblee, C. Streck, I. Zamora, M. Ghani, K. Reichard, K. Sacks, M. Kallis, A. Hong, H. Richards, S. Lin, E. Gross, M. Kabeer, T. Reyna, E. Paton, L. Camp, K. Stephenson, M. Dassinger, K. Vali, R. Filipescu, D. DeUgarte, V. Krishna, B. Slater, S. Islam, G. Thompson, J. Moore, B. Englum, S. Scholz, E. Sharbaugh, J. Gander, K. Tsao; *Multicenter Assessment of Cryoanalgesia Use in Minimally Invasive Repair of Pectus Excavatum: A Twenty-Center Retrospective Cohort Study; Annals of Surgery; Accepted for Publication*

S. Arshad, N. Hebballi, B. Hegde, E. Avritscher, S. John, R. Lapus, K. Tsao, A. Kawaguchi; *Early Discharge After Nonoperative Management of Intussusception is Both Safe and Cost-Effective; Journal of Pediatric Surgery; October 2021 [PMID 34756701]*

S. Arshad, D. Ferguson, E. Garcia, N. Hebballi, L. Li, M. Austin, A. Kawaguchi, K. Lally, K. Tsao; *Variability in opioid prescribing practices, knowledge, and beliefs: A survey of providers caring for pediatric surgical patients; Journal of Pediatric Surgery; May 2021 [PMID 34172281]*