Cullen M. Lilley, MD, MS, MA, MB(ASCP)

Resident Pathologist| Educator| Bioethicist Los Angeles, CA 90048

Education Additional Training Work Experience Research Experience Teaching Experience Books/Book Chapters Publications	<u>Invited National/Int. Lectures</u> <u>Major Presentations</u> <u>Poster Presentations</u> <u>Leadership</u> <u>Non-Peer Reviewed Work</u> <u>Editorial Duties</u> <u>Professional Affiliations</u>	<u>Certifications/Licensure</u> <u>Local/Virtual Teaching</u> <u>Civic Activities</u> <u>Grants</u> <u>Awards</u>
EDUCATION		
	tritch School of Medicine Maywo	ood, IL May 2023
Doctor of Medicine <i>Cum laude</i> , honors in	research, A Ω A inductee	
	eiswanger Institute for Bioethics bethics and Health Policy	Chicago, IL December 2022
University of Florida Gaine Master of Science in	esville, FL Medical Microbiology and Biocher	August 2019 mistry
Loyola University New Orlea Bachelor of Science <i>Summa cum laude</i> , hor	in Biological Sciences	May 2017
Loyola University New Orlea Bachelor of Music in Summa cum laude, end	Vocal Music with Elective Studies	May 2017
ADDITIONAL TRAINING		
University of California Los Anatomic and Clinic	Angeles Los Angeles, CA al Pathology Residency	June 2023 – June 2027
The Pathologist Magazine Kı Fellow in Digital Patl	nutsford, UK nology Communications	July 2021 – July 2022
WORK EXPERIENCE		
Microbiologist II, Centers for Laboratory Branch, Atlanta,	or Disease Control and Prevention GA	and IHRC, Inc., Enteric Diseases June 2018 – June 2019
Associate Microbiology Tecl Department, Marietta, GA	nnician, WuXi AppTec and Kelly S	Scientific, General Microbiology June 2017 – June 2018

RESEARCH EXPERIENCE

RESEARCH EXPERIENCE	
University of California Los Angeles Los Angeles, CA	November 2022 – Present
Resident Physician Researcher	
PI: Jonathan E. Zuckerman, MD, PhD	
- Renal Pathology	
PI: Shangxin Yang, PhD, D(ABMM), MLS(ASCP)	
- Clinical Microbiology	
PI: Peter Sarantopoulos	
- Dermatopathology	
Lovala University Medical Conton Marryand II	November 2019 – May 2023
Loyola University Medical Center Maywood, IL Madical Student Personalary Pethology	November $2019 - May 2023$
Medical Student Researcher, Pathology PIs: Maria M. Picken, MD, PhD; Vijayalakshmi Ananthanarayanan, M	BBS MD. Kamran Mirza MD
PhD; Xiuxu Chen, MD, PhD; Amanda Harrington, PhD, D(ABM)	
- Clinical microbiology, hematopathology, GI pathology, h	
medical renal pathology	eud und neek putiology, und
incurcui renui pueneregy	
Loyola University Chicago Maywood, IL	Nov 2020 – Dec 2022
Graduate Bioethics Researcher	
PathElective.com Chicago, IL	April 2020 – Present
Researcher, Co-founder, Microbiology Faculty	
PI: Kamran Mirza, MD, PhD	
Contemptor Discous Control and Provention Atlanta CA	Jupa 2018 Jupa 2010
Centers for Disease Control and Prevention Atlanta, GA	June 2018 – June 2019
Microbiologist II, Enteric Bacteriology and Molecular Microbiology PIs: Cheryl Tarr, PhD; Zuzana Kucerova, MD, PhD	y
Tis. Cheryi Tari, ThD, Zuzana Kucerova, MD, ThD	
Loyola University New Orleans New Orleans, LA	May 2015 – May 2017
Research Assistant, Molecular Genetics and Biochemistry	
PI: Kimberlee S. Mix, PhD	
TEACHING EXPERIENCE	
Resident Physician, Pathology, UCLA DGSOM	August 2023 – Present
Clinical Microbiology Faculty, Microbiology, PathElective	April 2020 – Present
Step 1 Stritch Group Facilitator, Loyola University Chicago	Sept 2022 – May 2023
Medical Student Tutor, Loyola University Chicago	Aug 2020 – May 2023
Poor Tutor/Toophing Assistant Lough University New Orleans	$M_{\rm ev} 2014$ $M_{\rm ev} 2017$
Peer Tutor/Teaching Assistant, Loyola University New Orleans	May 2014 – May 2017
BOOKS & BOOK CHAPTERS	

Lilley CM, Seth N, Gupta A (eds.). Rhode RE, Yee R, Mushtaq J, Pinedo Pichilingue A, Menon A, Gill HK, Isidan A, Anaya I, Miller LJ, Ahmad, A, Agarwal AN, and Mehrotra H. Ace the *Boards: A Concise Review of Clinical Microbiology*. 1st edition. June 2024.

Mehta V, Lilley CM, Picken MM. Adenovirus. In "Stains and CD Markers." *Pathology Outlines*. April 2023. <u>https://www.pathologyoutlines.com/topic/stainsadenovirus.html</u>

Lilley CM, Kanakis CE, Harrington AT. Intro to Clinical Microbiology. In *PathElective*. Association of Pathology Chairs. July 2022. <u>https://www.pathelective.com/micro-home</u>

Lilley CM. Molecular Microbiology. In *PathElective*. Association of Pathology Chairs. July 2022. https://www.pathelective.com/mo-micro-home

Gupta A (ed.). Sharma N, Sakria P, Kannan S, Lilley CM, Cox B, Nomani L, Sonawane S. Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. 1st edition. July 2021.

Sharma N, Sivaraj K, Lilley CM, Kale KM. "Infectious Causes of Lymphadenitis" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.

Skaria P, Lilley CM, Gupta A. "Constitutional Granulocytic Disorders" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.

Nomani L, Lilley CM. "Non-neoplastic disorders of the platelets" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.

- Nomani L, Lilley CM. "Thrombocytosis" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.
- Laxmi DA, Lilley CM, Gupta A. "Infections of Peripheral Blood and Bone Marrow" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.
- Laxmi DA, Lilley CM. "Miscellaneous Non-Neoplastic Disorders and Conditions of the Blood and Bone Marrow" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.
- Nguyen L, Lilley CM. "Fluid Specimens" in Gupta A (ed.) Ace the Boards: Non-Neoplastic Hematopathology and Coagulation. July 2021.

PUBLICATIONS

- Bronson A, Zhu J, Genevieve C, Lilley CM, Mirza KM. Clinicopathologic Insights and Molecular Oncogenesis: Understanding Epstein-Barr Virus Induced B-Cell Lymphoproliferations. *International Journal of Surgical Pathology*. (accepted)
- Plummer MM, Mirza KM, Lilley CM, and Eng N. Implementing PathElective as An Organized Means of Supplementing Pathology Education in An Osteopathic Medical School – The New York Institute of Technology College of Osteopathic Medicine Experience. Academic Pathology. <u>https://doi.org/10.1016/j.acpath.2024.100122</u>. PMID: 38812825; PMCID: PMC11134534.
- Tannenbaum AP,* Lilley CM.* Perspectives from Two Recent Medical School Graduates on Exposure to Pathology During Undergraduate Medical Education: A Narrative Inquiry.

Academic Pathology. October 4, 2023. <u>https://doi.org/10.1016/j.acpath.2023.100094</u>. PMID: 37840650; PMCID: PMC10568268.

- Lilley CM, Arnold CA, Arnold M, Booth AL, Gardner JM, Jiang X, Loghavi S, and Mirza KM. Virtual Pathology Elective, Real Education: The PathElective.com Experience as a Model for Novel Pathology Pedagogy and a Primer for Curricular Evolution. *Archives of Pathology and Laboratory Medicine*. August 28, 2023. <u>https://doi.org/10.5858/arpa.2022-0259-oa</u>. PMID: 37638521.
- Stone M, Lilley CM, Tang G, Loghavi S, and Mirza KM. Phenotypic Clues That Predict Underlying Cytogenetic/Genetic Abnormalities in Myeloid Malignancies – A Contemporary Review. Cytopathology. July 31, 2023. <u>https://doi.org/10.1111/cyt.13280</u>. PMID: 37522274.
- Bronson AS, Lilley CM, Zleczewski M, Mirza KM. Polyamine Catabolism is Concentrated in Tumor-Associated Histiocytes in Diffuse Large B-Cell Lymphoma and Classic Hodgkin Lymphoma. *Pathol Res Pract.* June 17, 2023. <u>https://doi.org/10.1016/j.prp.2023.154627</u>. PMID: 37343378.
- Lilley CM, Borys E, and Picken MM. Adenovirus-Associated Acute Interstitial Nephritis with Graft Survival and Novel Follow-Up Biopsy Findings Including Karyomegaly: A Case Series. *Cureus Journal of Medical Science*. May 2, 2023. <u>https://doi.org/10.7759/cureus.38452</u>. PMID: 37273386; PMCID: PMC10234624.
- Lilley CM, Picken MM. Novel Histopathologic and Ultrastructural Findings in Renal Allografts from Patients with Size and Age Mismatches: A Case Series. *Cureus Journal of Medical Science*. February 1, 2023. <u>https://doi.org/10.7759/cureus.34510</u>. PMID: 36874348; PMCID: PMC9984201
- Yasuda M, Chiodo C, Lilley CM, Mehotra S, Ananthanarayanan V, Ziegler A, Thorpe E. Relationship Between Worst Pattern of Invasion and Extranodal Extension in Oral Tongue Squamous Cell Carcinomas. *Head and Neck Pathology*. February 1, 2023. <u>https://doi.org/10.1007/s12105-023-01531-3</u>. PMID: 36723853.
- Lilley CM, Delille M, Mirza KM, and Parilla M. Toward a More Just System of Care in Molecular Pathology. *Milbank Quarterly*. December 1, 2022. <u>https://doi.org/10.1111/1468-0009.12587</u>. PMID: 36454130; PMCID: PMC9836258.
- McIntosh T, Kucerova Z, Katz L, Lilley CM, Rowe LA, Unoarumhi Y, Batra D, Burnett E, Smikle M, Lee C. Genome Sequences of Hemolytic and Non-hemolytic Listeria innocua strains from Human, Food and Environmental Sources. *Microbiology Resource Announcements*. November 29, 2022. <u>https://doi.org/10.1128/mra.00723-22</u>. PMID: 36445150; PMCID: PMC9753683.
- Grech J, Lilley CM, Martinbianco E, Ding X, Mirza KM, and Chen X. Nodular Histiocytic/Mesothelial Hyperplasia Mimicking Mesenteric Metastasis. *Cureus Journal of*

Medical Science. May 13, 2022. <u>https://doi.org/10.7759/cureus.24971</u>. PMID: 35698687; PMCID: PMC9188811.

- Martinbianco E, Lilley CM, Grech J, Mirza KM, Chen X. Heterotopic Mesenteric Ossification with Trilineage Hematopoiesis. *Cureus Journal of Medical Science*. April 30, 2022. <u>https://doi.org/10.7759/cureus.24620</u>. PMID: 35664416; PMCID: PMC9150764.
- Lilley C, Alarcon A, Ngo M, Araujo J, Marrero L, and Mix KS. NFκB and orphan nuclear receptor NR4A2 expression patterns during arthritis progression in hTNF-alpha transgenic mice. *Frontiers in Pharmacology*. April 20, 2022. <u>https://doi.org/10.3389/fphar.2022.835697</u> PMID: 35529439; PMCID: PMC9067626.
- Lilley CM, Grech J, Martinbianco E, Chen X. Human Intestinal Spirochetosis Incompatible with Dysplastic Adenomatous Epithelium. *Cureus Journal of Medical Science*. March 14, 2022. <u>https://doi.org/10.7759/cureus.23140</u>. PMID: 35444914; PMCID: PMC9009974.
- Ponnatt TS, Lilley CM, Mirza KM. Hemophagocytic Lymphohistiocytosis. Arch Pathol Lab Med. August 4, 2021. <u>https://doi.org/10.5858/arpa.2020-0802-RA</u>. PMID: 34347856.
- Mirza KM, Lilley CM, Upton MP. Is It Time for a Broader Call to Learn the Language of Pathology and Laboratory Medicine? *Laboratory Medicine*. September 1, 2021. <u>https://doi.org/10.1093/labmed/lmab017</u>. PMID: 34125194.
- Lilley CM, Mirza KM. Critical role of pathology and laboratory medicine in the conversation surrounding access to healthcare. *Journal of Medical Ethics*. April 16, 2021. http://dx.doi.org/10.1136/medethics-2021-107251. PMID: 33863832.
- Lilley CM, Arnold CA, Arnold M, Booth AL, Gardner JM, Jiang X, Loghavi S, and Mirza KM. The Implementation and Effectiveness of PathElective.com. *Academic Pathology*. January 2021. <u>https://doi.org/10.1177/23742895211006829</u>. PMID: 33884295; PMCID: PMC8040569. (open access fee awardee)

INVITED NATIONAL/INTERNATIONAL LECTURES

- Lilley CM and Mirza KM. Bringing the Gap Between UME and GME. Association of Pathology Chairs. July 21-24. (Invited Lecture)
- Lilley CM and Mirza KM. Bioethics in the Lab: A Primer to Bioethical Inquiry in Pathology and Laboratory Medicine. American Society for Clinical Pathology. October 20, 2023. (Invited Lecture)
- Mirza KM and Lilley CM. Bioethics in the Laboratory: The Intersection of the Medical Laboratory and Society. American Society for Clinical Pathology: KnowledgeLab. March 1, 2023. (Management and Leadership, General Session, Invited Lecture)

Lilley CM and Kanakis CE. Social Media 103: Ethics, Law, and Professionalism. American Society for Clinical Pathology: Road to Chicago. August 24, 2022. (Pre-meeting Session, Invited Lecture)

MAJOR RESEARCH PRESENTATIONS

- Lilley CM, Quintanilla-Arteaga A, Mirza KM, Ware AD, White MJ. Tackling Diversity, Equity, and Inclusion in Pathology Education with Web-Based Platforms: PathElective's Growing Role in Battling Socioeconomic Inequities in Pathology. United States and Canada Academy of Pathology. March 13, 2023. (Platform) https://www.laboratoryinvestigation.org/article/S0023-6837(23)00029-6/pdf
- Lilley CM, Arnold M, Arnold CA, Booth AL, Gardner JM, Jiang X, Loghavi S, and Mirza KM. Web-Based Pathology Education Is an Effective Curricular Adjunct: The PathElective.com Experience as a Model for Novel Pathology Pedagogy. United States and Canada Academy of Pathology. March 23, 2022. (Platform) <u>https://www.nature.com/articles/s41374-022-00751-5.pdf</u>
- Lilley CM and Mirza KM. Toward a More Just System of Care in Molecular Pathology. American Society for Bioethics and Humanities Annual Conference. October 13-16, 2021. (Paper Presentation)
- Lilley CM and Mirza KM. The Critical Role of Pathology and Laboratory Medicine in the Conversation Surrounding Access to Healthcare. American Society for Bioethics and Humanities Annual Conference. October 13-16, 2021. (Flash Presentation)
- Lilley CM and Mirza KM. An Innovative Approach to Global Pathology Education: PathElective.com Experience. Group on Educational Affairs (GEA) Regional Spring Meeting. April 20-22, 2021. (Oral Presentation)

POSTER PRESENTATIONS

- Lilley CM and Zuckerman JE. Microscopic Tubulovenous Fistulae in Nonneoplastic Kidneys: A Single-Center Case Series. College of American Pathologists. October 19-22, 2024. (accepted)
- Lilley CM and Goldstein JD. Systemic Sweet Syndrome Recurrence in Lung Allograft: Autopsy Findings from First Reported Case. American Society for Clinical Pathology. September 3-6, 2024. (accepted)
- Plummer MM, Mirza KM, Lilley CM, and Eng N. Implementing PathElective as An Organized Means of Supplementing Pathology Education in An Osteopathic Medical School – The New York Institute of Technology College of Osteopathic Medicine Experience. Association of Pathology Chairs. July 21-24, 2024. (Poster)
- Arnason T, Lilley CM, Adams, and Mirza KM. Assessing the Impact of Race, Sexual Orientation, and Gender Identity on USMLE Style Questions: Preliminary Results of a

Randomized Controlled Trial. American Society for Clinical Pathology. October 18-20, 2023. (Poster, Blue Metal Finalist, Oral Presentation Winner)

- Hagen ES, Quintanilla-Arteaga AS, Lilley CM, Mirza KM. The Informative & Virtuous Role of Autopsy Observation Experiences in Medical Student Education. American Society for Clinical Pathology. October 18-20, 2023. (Poster, Blue Metal Finalist)
- Regmi A, Lilley CM, Yashuda M, Thorpe E, Ziegler A, Mehrotra S, Ananthanarayanan V. Cutaneous Squamous Cell Carcinoma with Metastasis to the Parotid: A Single-Center Retrospective Histologic Observational Study. College of American Pathologists. October 7-10, 2023. (Poster)
- Lilley CM, Rodriguez ED, Lor MR, Levins PC, and Sarantopoulos GP. Suspected Protracted Calciphylaxis in a Patient with Progressive Lower Extremity Pain. American Society for Dermatopathology. October 2-4, 2023. (Poster)
- Lilley CM and Picken MM. Case Series of Adenovirus-Associated Acute Interstitial Nephritis with Graft Survival. United States and Canada Academy of Pathology. March 15, 2023. (Poster)
- Lilley CM and Picken MM. Case Series of Donor-Recipient Renal Transplant Mismatch: Looking Beyond the Size? American Society for Nephrology. November 15, 2022. (Poster)
- Lilley CM, Quintanilla-Arteaga A, Mirza KM, Ware AD, White MJ. The Role of Web-Based Platforms as a Novel Approach to Tackling Diversity, Equity, and Inclusion in Pathology Education – The PathElective.com Experience. American Society for Clinical Pathology. September 7, 2022. (Poster)
- Nam J, Lilley CM, Patel P. Formal Implementation of Mentorship Families in Undergraduate Medical Education. Association for Surgical Education. May 3, 2022. (Poster)
- Lilley CM and Mirza KM. Virtual Pathology Elective, Real Education The PathElective Experience as a Model for Novel Pathology Pedagogy. Central Group on Educational Affairs Annual Meeting. March 30, 2022. (Poster)
- Nam J, Codispoti N, Lilley CM, Patel P. Effect of Longitudinal Mentorship Program in Students' Interest in Surgery. Central Group on Educational Affairs Annual Meeting. March 30, 2022. (Poster)
- Lilley CM and Mirza KM. Providing Molecular Diagnostic Training via PathElective.com. *Journal of Molecular Pathology*. November 18, 2021. (AMP US Trainee Travel Award Winner, Poster) https://www.jmdjournal.org/article/S1525-1578(21)00315-9/pdf
- Lilley CM, Marin MJ, Demas C, Wiencek J, Kanakis CE, Fu L, Wolniak K, Hermelin D, Scordino T, Thomas C, Mirza K. The Utility of PathElective.com as a Curricular Adjunct in Laboratory Medicine Education. *American Journal of Clinical Pathology*. October 28, 2021.

(ASCP Travel Award Winner, Poster) https://academic.oup.com/ajcp/article/156/Supplement 1/S36/6413090

- Lilley CM and Mirza KM. Using the #micromeded Initiative to Share Microbiology Infographics and Improve Your Professional Presence on Social Media. World Microbe Forum. June 23, 2021. (Poster)
- Lilley CM, Velazquez IG, Mirza KM, Harrington AT. Delivering Clinical Microbiology Education Online via Pathelective.com. World Microbe Forum. June 23, 2021. (Poster, ASM Student and Postdoctoral Travel Awardee)
- Lilley C and Mirza K. The Utility of PathElective.com in Pathology and Laboratory Education. Clinical Laboratory Educators Conference. American Clinical Laboratory Educators. February 26, 2021. (Poster)
- Lilley CM, Hamnvag HM, McHenry A, Ahmed A, Arnold C, Mirza KM. The Utility of Social Media in Supplementing Traditional Pathology Education during Medical Student Elective. College of American Pathologists. October 12, 2020. (Medical Student Travel Award Winner, Poster)
- Lilley C, Bauer M, Grajales P, Parada JP, and Harrington A. Prevalence of *Candida auris* from Nares of Select Inpatient Populations in a Large Tertiary Care Medical System. American Society for Microbiology: Public Health Microbiology. June 21, 2020. (Poster) https://virtualmeeting.ctimeetingtech.com/asm2020/attendee/eposter/2555
- McIntosh T, Kucerova Z, Lilley C, and Tarr C. Genetic Diversity of *Listeria innocua*: A Genotypic Characterization of Human Isolates. American Society for Microbiology: Public Health Microbiology. June 20, 2020. (Poster)
- Lilley C, Kucerova Z, McIntosh T, Conrad A, Hughes M, Diebold k, Watkins LF. *Listeria monocytogenes* from non-sterile sites – subtyping data. FEMS Microbiology. International Symposium on Problems of *Listeria* and Listeriosis. September 25, 2019. (Poster)
- Kucerova Z, McIntosh T, Derado G, Lilley C, Stroika S, Conrad A, Tarr C. Genetic diversity of human clinical isolates of *Listeria monocytogenes* in the United States as assessed by MLST.
 FEMS Microbiology. International Symposium on Problems of *Listeria* and Listeriosis.
 September 25, 2019. (Poster)
- Araujo J, Lilley C, Mix K. Nuclear Receptor 4A2 is Selectively Upregulated in the Human TNFalpha Transgenic Model of Rheumatoid Arthritis. Arthritis Rheumatol. 2015; 67 (suppl 10). <u>http://acrabstracts.org/abstract/nuclear-receptor-4a2-is-selectively-upregulated-in-the-humantnf-alpha-transgenic-model-of-rheumatoid-arthritis/</u>

LEADERSHIP

CAP RFEC Virtual Programing Action Group

UCLA Health Ronald Raegan Medical Center Ethics Committee Resident Member	2023 - Present
Social Media Co-Coordinator UCLA Pathology Residency Program	2023 - Present
ASCP Social Media Committee Medical Student Member	2021 - Present
ASCP Patient Champions Steering Committee Member	2021 - Present
UCLA Graduate Medical Education Committee Pathology Resident Representative	2023 -2024
CAP RFEC Medical Student Working Group Medical Student Working Group Member	2022 - 2023
APC Research Committee Kinney Scholar Member	2021 - 2023
USCAP Social Media Subcommittee Trainee Member	2022 - 2022
International Pathology Collaborative Founding medical student councilman	2020 - 2021
SCOPE Pathology Interest Group VP of Outreach President	2022 - 2023 2020 - 2022
Virtual PathSIG Vice president of academic engagement	2020 - 2021

NON-PEER REVIEWED WORK

The Pathologist: Visual Aids in Medical Education: How to Captivate the Modern Medical Student with Unique and Concise Illustrations. 7/14/22. https://thepathologist.com/outside-the-lab/visual-aids-in-medical-education

MedPage Today: Reimagining the Step 1 Exam Dedicated Study Period. 1/8/22. https://www.medpagetoday.com/opinion/second-opinions/96562

Journal of Medical Ethics Blog: How the Laboratory and the Pathologists Affect Access to Care. 4/23/21. <u>https://blogs.bmj.com/medical-ethics/2021/04/23/how-the-laboratory-and-the-pathologist-affect-access-to-care/</u>

KevinMD: How Do We Address the Heterogeneity in Vaccine Hesitancy? 02/25/2021. <u>https://www.kevinmd.com/blog/2021/02/how-do-we-address-the-heterogeneity-in-vaccine-hesitancy.html</u>

- KevinMD: COVID-19 Testing: Here's How We Gain the Public's Trust. 07/25/2020. https://www.kevinmd.com/blog/2020/07/covid-19-heres-how-to-gain-the-publics-trust.html
- Doximity Op-Med: The Ethical Quandary of Communication During COVID-19. 07/16/2020. <u>https://opmed.doximity.com/articles/establishing-communication-and-truth-in-the-age-of-the-internet? csrf_attempted=yes</u>

EDITORIAL DUTIES

PathElective: Editorial Board Member		2021 – Present	
ASCP Patient Champions: Scientific Review	v Panelis t	2022 - Present	
Ad Hoc Peer Review:			
- Cureus Journal of Medical Science (2023)			
- American Society for Bioethics and	Humanities (2022)		
- Clinical Chemistry and Laboratory Medicine (2021)			
PROFESSIONAL AFFILIATIONS			
American Society for Clinical Pathology	College of American Pathologi	sts	

American Society for Clinical Pathology	College of American Pathologists
American Society for Microbiology	Digital Pathology Association
American Society for Bioethics and Humanities	Renal Pathology Society
Association for Molecular Pathology	United States and Canada Academy of Pathology
Association for Academic Pathology	

CERTIFICATIONS/LICENSURE

California Medical License - Medical Board of California

United States Medical Licensing Examination - National Board of Medical Examiners

Technologist in Molecular Biology - American Society Clinical Pathology - MB(ASCP)

Basic Life Saving - American Heart Association - BLS(AHA)

Basic Certification in Quality & Safety - Institute for Healthcare Improvement - BCQS(IHI)

LOCAL/VIRTUAL TEACHING/OUTREACH

College of American Pathologists – Resident Forum			
1. "Finding Your Best Fit for Residency" (Spring Resident Forum)	March 24, 2024		
2. "Maximizing Medical School for a Successful Pathology Match"	February 27, 2024		
3. "The Path to Match"	August 9, 2023		
UCLA David Geffen School of Medicine			
1. Pulmonary Pathology Lab	April 23-24, 2024		
2. "Applying to Pathology Residency"	March 28, 2024		
3. "Fall 2023 Resident Roundtable"	October 30, 2023		
4. "Pathology Resident Panel"	September 29, 2023		

Virtual Pathology Student Interest Group 1. "Fall 2023 Pathology Resident Panel"

November 11, 2023

UCLA Department of Pathology and Laboratory Medicine

1.	"Pathology Meet and Greet – Session 2" (presenter)	September 14, 2023
2.	"Pathology Meet and Greet – Session 1" (panelist)	August 24, 2023

Loyola University New Orleans, Department of Biological Sciences

1.	"Delivery of Virtual Pathology Education with PathElective.com: Authority	, Efficacy, and
	Equitability"	March 14, 2023
2.	"Careers in Pathology and Laboratory Medicine"	March 14, 2023

Loyola University Chicago Stritch School of Medicine, Pathology Student Interest Group

1.	"What is Pathology?"	August 20, 2021
2.	"Ethical Considerations in the Application of AI in Diagnostics"	January 4, 2021
3.	"Molecular Pathology: The Future of Medical Diagnosis"	September 16, 2019

Loyola University Chicago Stritch School of Medicine, Division of Pediatrics Grand Rounds

1.	MicroMedEd: Foundations and Beyond	January 26, 2021
Lo	yola University Chicago Stritch School of Medicine, Medical Student	Grand Rounds
1.	"Ethical Foundations for Physicians Participation in Health Policy"	November 30, 2020
2.	"Microbiology in Medical Education: Opportunities and Frontiers"	November 24, 2020
XX 7.	alten High School Biomodical Sciences STEM Program	

Walton High School, Biomedical Sciences STEM Program

1.	"Careers in Medicine and Biomedical Sciences"	March 25, 2021
2.	"Tying in Your Basic Science Knowledge with SARS-CoV-2 Biology"	March 19, 2021
3.	"Going Viral: Virology for High School Educators"	January 2019

CIVIC ACTIVITIES

Scholarship Application Reviewer—ASCP (7/2024)

Big Sib–UCLA DGSOM Big Sib Program (10/2023-Present)

Free, Open-Access Medical Educator—PathElective, MicroMedEd (05/2020-Present)

Pro Bono Web Developer—PathElective, Pathology Ethics, ICPath, PathRounds, Loyola Pathology, Pathology Central (2020-2022) Curricular Innovations and Technology in Education (CITE)—Loyola Stritch School of Medicine—Maywood, IL (2021-2023)

Interview Committee–Loyola Stritch School of Medicine–Maywood, IL (2020-2021)

Interim Researcher: COVID-19 Response–Loyola Medicine–Maywood, IL (03/2020-06/2020)

Medical Student Mentor–New Life Volunteer Society–Chicago, IL (2020-2022)

Volunteer Phlebotomist–Community Health Clinic–Chicago, IL (08/2019-12/2020)

Admissions Tour Guide–Loyola University Chicago Stritch School of Medicine (2019-2023)

Healing Notes–Loyola University Chicago Stritch School of Medicine (2019-2020)

Research Mentor, Guest Lecturer–Walton High School (2017-2019)

GRANTS

Society of '67 Pathology Trainee Project Grant in Health Services Research and Education, Association of Pathology Chairs, 2021 NIH NIAID T35 Grant Recipient,* Loyola University Medical Center, 2020 *canceled due to COVID-19 pandemic

AWARDS

St. Ignatius Award for Outstanding Contribution to Peer Teaching, Loyola Chicago, 2023
Alpha Omega Alpha Inductee, AΩA Honor Medical Society, 2023
The Pathologist Power List 2022 – First Contact, *The Pathologist*, 2022
2022 CAP Distinguished Medical Student Award, College of American Pathologists and Loyola University Health Systems, 2022
30 Under 30, Pi Kappa Phi Fraternity, 2022
Medical Student Research Excellence Award, Pakistani-American Pathologists' Society
ASCP 2021 Medical Student Gold Award, American Society for Clinical Pathology, 2021
CAP Pathology Advancement Award, College of American Pathologists, 2021
The Pathologist Power List 2021 – In the Spotlight, *The Pathologist*, 2021
AAB David Birenbaum Scholar, American Association of Bioanalysts, 2021
The Special Commendation of Outstanding Pathology Endeavors (SCOPE) Award, Loyola Medicine Department of Pathology, 2021

Society of '67 Thomas D. Kinney Scholar, Association of Pathology Chairs, 2021 Article Processing Fee Award, Association of Pathology Chairs, 2020 Phi Kappa Phi Honor Society, University of Florida, 2019 Rev. Percy A. Roy Award, Loyola University New Orleans, 2017 Rev. John H. Mullahy, S.J. Award, Loyola University New Orleans, 2017 Ruth and Lee Faust Award, Loyola University New Orleans, 2017 Alpha Sigma Nu Jesuit Honor Society, Loyola University New Orleans, 2016 Phi Eta Sigma Honor Society, Loyola University New Orleans, 2016

TRAVEL AWARDS

- AMP 2021 US-based Trainee Travel Award, Association for Molecular Pathology, 2021
- ASCP 2021 Travel Grant, American Society for Clinical Pathology, 2021
- ASM Student and Postdoctoral Travel Award, American Society of Microbiology and the Federation for European Microbiological Societies, 2021
- Registration Support Award, Association for Molecular Pathology, 2020
- Medical Student Travel Award Recipient, College of American Pathologists, 2020