

TULANE UNIVERSITY SCHOOL OF MEDICINE
DEPARTMENT OF PATHOLOGY & LABORATORY MEDICINE

PATHWAYS

NEWSLETTER

VOLUME 11, ISSUE 1

SUMMER 2024

2024-2025 DEPARTMENT FELLOWS AND RESIDENTS

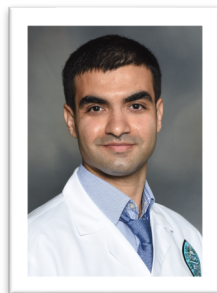


The 2024-2025 Fellows and Residents stand before a sculpture East Jefferson General Hospital, new location for the clinical pathologists, residents and fellows. Pictured from left to right: Back row: Dr. Ryan Craig, Residency Program Director; Doctors Yuhua Xue; Konrad Bach; Hanadi Osman; Younes Aljohmani (Cytopathology Fellow); Robert Wood (Hematopathology Fellow); Keaton Ott. Front row, left to right. Doctors Carlos Lopez; Farhanaz Panjshiri; Ross Bonnot; Phoenix Hwaung; Sarah Lewis; Hira Saeed; Elizabeth Bozner, Annette Hebert and Bea DeLuca, Residency Program Coordinator.

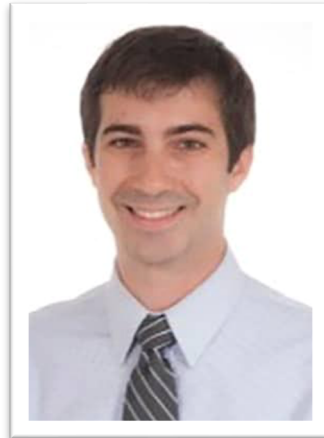
GRADUATION 2024**New Horizons
Faculty, Fellow and Residents Gather at Ralph's on the Park
to Celebrate Graduation**

Ralph's on the Park Restaurant was the venue where the graduation of fellow and residents was celebrated on June 25, 2024. Dr. Yousif Al Rubaye, successfully completing his Dermatopathology Fellowship, has accepted a private practice position in Tucson, AZ. Residency graduates Drs. Younes Aljohmani, Ghaidaa Majari and Robert Wood will remain in Tulane Pathology as the Cytopathology Fellow, Dermatopathology Fellow and Hematopathology Fellow, respectively. Dr. Aljohmani received the Richard J. Reed Award for Excellence in Surgical Pathology. Dr. Annette Hebert, P.G.Y. II, was honored with the Nina Dhurandhar, M.D. Award for Excellence in Cytopathology, and Drs. Phoenix Hwaung and Farhanaz Panjshiri, both P.G.Y. I's, were co-recipients of the Rokitansky Award for Excellence in Autopsy Pathology.

Pictured below: Left to right, top: Drs. Yousif Al Rubaye, Younes Aljohmani, Ghaidaa Majari, Robert Wood.



GRADUATION 2024 (Continued)

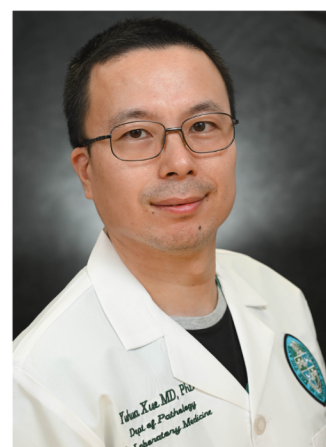


Dr. Ryan Craig, Assistant Professor of Pathology
Director of Residency Program
Philip J. Daroca Award Excellence in Residency Education

CO-CHIEF RESIDENTS 2024-2025



Dr. Hanadi Osman



Dr. Yuhua Xue

NEW RESIDENTS 2024-2025

Welcome Tulane Pathology
2024 Residents



Elizabeth Marie Bozner, MD
Louisiana State University School
of Medicine - New Orleans
New Orleans, LA



Keaton Noah Ott, MD
Tulane University
School of Medicine
New Orleans, LA

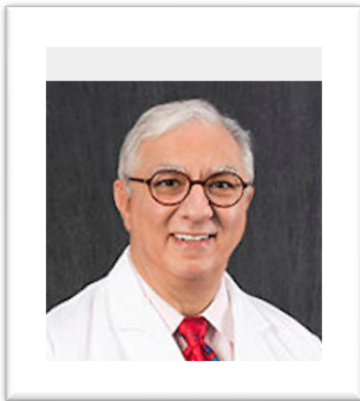


Hira Saeed, MBBS
Federal Medical and
Dental College,
Pakistan

SPECIAL LECTURES

The annual Dr. and Mrs. Michael A. Gerber Pathology Research Lecture took place on September 15, 2023, and was delivered by Dr. Bernd Schnabl, Professor of Medicine, Division of Gastroenterology, University of California at San Diego. Dr. Schnabl's (seen right) lecture was entitled, *Small Bugs, Big Changes: A Microbiota Centered View of Liver Disease*.

The Department was honored to have Ms. Elisa Gerber, daughter of Dr. and Mrs. Gerber, as a special guest in attendance.



Dr. Michael Laposata (**seen left**), Professor and Chair of the Department of Pathology, University of Texas Medical Branch, Galveston, TX, delivered the Annual Sternberg-Reed Lecture on March 1, 2024 after conducting a conference with the

Pathology Residents. Dr. Laposata's lecture was entitled, *The John Sealy Diagnostic Center was UTMB*.

GRAND ROUNDS GUEST SPEAKERS



Dr. Qihui (Jim) Zhai, **(seen left)** Professor and Chair of Department of Pathology and Pathobiology, LSU Shreveport, and newly elected President of College of American Pathologists (CAP), delivered the Grand Rounds presentation, *The Pathologist's Leadership Role in Laboratory Management and Services, the CAP Perspective*, on May 24, 2024.



As part of Tulane University Faculty Networking Seminar, and presenting at Pathology Grand Rounds, Dr. Daohong Zhou **(seen left)**, Professor in the Department of Biochemistry and Structural Biology, and the Terry Lozano Long Distinguished Chair of Development Therapeutics at the Long School of Medicine, UT Health San Antonio, presented, *BCL-XL-PROTAC—A Safer and More Effective Antitumor Agent*.

PUBLICATIONS

DEPARTMENT OF PATHOLOGY FACULTY PUBLICATIONS JAUARY—JUNE 2024

W. Chen

Wu M, Wu S, **Chen W**, Li YP. The roles and regulatory mechanisms of TGF- β and BMP signaling in bone and cartilage development, homeostasis and disease. **Cell Res.** 2024 Feb;34(2):101-123. doi: 10.1038/s41422-023-00918-9. Epub 2024 Jan 24. PMID: 38267638

Chen W, Lu Y, Zhang Y, Wu J, McVicar A, Chen Y, Zhu S, Zhu G, Lu Y, Zhang J, McConnell M, Li YP. Cbfb regulates Wnt/ β -catenin, Hippo/Yap, and Tgf β signaling pathways in articular cartilage homeostasis and protects from ACLT surgery-induced osteoarthritis.

Elife. 2024 May 28;13:e95640. doi: 10.7554/eLife.95640.PMID: 3880554.

Zhang Y, Chen H, Wu J, McVicar A, Chen Y, Su J, Li YP, **Chen W**. Deficiency of Cbfb in articular cartilage leads to osteoarthritis-like phenotype through Hippo/Yap, TGF β , and Wnt/ β -catenin signaling pathways. **Int J Biol Sci.** 2024 Mar 11;20(6):1965-1977. doi: 10.7150/ijbs.90250. eCollection 2024.PMID: 38617544

S. DASH:

Srinivas Chava, Nergiz Ekmen, Pauline Ferraris, Yucel Aydin, **Krzysztof Moroz**, **Tong Wu**, Swan N Thung and **Srikanta Dash**. Mechanisms of sorafenib resistance in HCC culture relate to the impaired membrane expression of organic cation transporter-1 (OCT1). **Journal of Hepatocellular Carcinoma**, 2024;11:1-17.

E. FLEMINGTON:

Ungerleider NA, Roberts C, O'Grady TM, Nguyen TT, Baddoo M, Wang J, Ishaq E, Concha M, Lam M, Bass J, Nguyen TD, Van Otterloo N, Wickramarachchige-Dona N, Wyczechowska D, Morales M, Ma T, Dong Y, **Flemington EK**. Viral reprogramming of host transcription initiation. **Nucleic Acids Res.** 2024 May 22;52(9):5016-5032. doi: 10.1093/nar/gkae175. PMID: 38471819.

Abdulnour-Nakhoul SM, Kolls JK, **Flemington EK**, Ungerleider NA, Nakhoul HN, Song K, Nakhoul NL. Alterations in gene expression and microbiome composition upon calcium-sensing receptor deletion in the mouse esophagus. **Am J Physiol Gastrointest Liver Physiol.** 2024 Apr 1;326(4):G438-G459. doi: 10.1152/ajpgi.00066.2023. Epub 2024 Jan 9. PMID: 38193195

Magrath JW, Flinchum DA, Hartono AB, Sampath SS, O'Grady TM, Baddoo M, Haoyang L, **Xu X, Flemington EK, Lee SB**. Transcriptomic analysis identifies B-lymphocyte kinase as a therapeutic target for desmoplastic small round cell tumor cancer stem cell-like cells. **Oncogenesis.** 2024 Jan 4;13(1):2. doi: 10.1038/s41389-023-00504-z. PMID: 38177125

Ma T, Jin L, Bai S, Liu Z, Wang S, Shen B, Cho Y, Cao S, Sun MJS, Fazli L, Zhang D, Wedderburn C, Zhang DY, Mugon G, Ungerleider N, Baddoo M, Zhang K, Schiavone LH, Burkhardt BR, Fan J, You Z, **Flemington EK**, Dong X, Dong Y. Loss of feedback regulation between FAM3B and androgen receptor driving prostate cancer progression. **J Natl Cancer Inst.** 2024 Mar 7;116(3):421-433. doi: 10.1093/jnci/djad215. PMID: 37847647

Safa FM, Rasmussen T, Fontan L, Xia M, Melnick A, Wiestner A, Lobelle-Rich P, Burger JA, Mouawad Y, Safah H, **Flemington EK**, Saba NS. Profiling the activity of the paracaspase MALT1 in B-cell acute lymphoblastic leukemia for potential targeted therapeutic application. *Haematologica.* 2024 May 1;109(5):1348-1358. doi: 10.3324/haematol.2023.283178. PMID: 37767562

S. LEE:

Magrath, J.W., Goldberg, I.N., Truong, D.D., Hartono, A.B., Sampath, S.S., Jackson, C.E., Ghosh, A., Cardin, D.L., Zhang, H., Ludwig, J.A. and **Lee, S.B.*** Enzalutamide induces cytotoxicity in desmoplastic small round cell tumor independent of the Androgen Receptor. (2024). **Communications Biology**, 7, 411 (2024). <https://doi.org/10.1038/s42003-024-06003-0>. PMID: 38575753.

Magrath, J.W., Sampath, S.S., Flinchum, D.A., Hartono, A.B., Goldberg, I.N., Boehling, J.R., Savkovic, S. and **Lee, S.B.*** Comprehensive transcriptomic analysis of EWSR1::WT1 targets identifies CDK4/6 inhibitors as an effective therapy for desmoplastic small round cell tumors. (2024). **Cancer Research**, 84:1426-1442. PMID: 38588409.

Magrath JW, Flinchum DA, Hartono AB, Sampath SS, O'Grady TM, Baddoo M, Haoyang L, **Xu X, Flemington EK, Lee SB**. Transcriptomic analysis identifies B-lymphocyte kinase as a therapeutic target for desmoplastic small round cell tumor cancer stem cell-like cells. **Oncogenesis**. 2024 Jan 4;13(1):2. doi: 10.1038/s41389-023-00504-z. PMID: 38177125

YP. LI:

Wu M, Wu S, **Chen W, Li YP**. The roles and regulatory mechanisms of TGF- β and BMP signaling in bone and cartilage development, homeostasis and disease. **Cell Res**. 2024 Feb;34(2):101-123. doi: 10.1038/s41422-023-00918-9. Epub 2024 Jan 24. PMID: 38267638

Chen W, Lu Y, Zhang Y, Wu J, McVicar A, Chen Y, Zhu S, Zhu G, Lu Y, Zhang J, McConnell M, **Li YP**. Cbfb β regulates Wnt/ β -catenin, Hippo/Yap, and Tgfb β signaling pathways in articular cartilage homeostasis and protects from ACLT surgery-induced osteoarthritis.

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Zhang Y, Chen H, Wu J, McVicar A, Chen Y, Su J, **Li YP, Chen W**. Deficiency of Cbfb β in articular cartilage leads to osteoarthritis-like phenotype through Hippo/Yap, TGF β , and Wnt/ β -catenin signaling pathways. **Int J Biol Sci**. 2024 Mar 11;20(6):1965-1977. doi: 10.7150/ijbs.90250. eCollection 2024.PMID: 38617544

Z. LIN:

J Chen*, **Z Lin***, J Fan, B Monzavi-Karbassi, T Kelly, SR Post, L Dai, Z Qin. Identification of new microtubule small-molecule inhibitors and microtubule-associated genes against triple negative breast cancer. 2024 **American Journal of Cancer Research**. 14 (4), 1545-1560 (*Co-first authors). (Impact factor: 6.2)

J Chen, J Fan, **Z Lin**, L Dai, Z Qin. Human endogenous retrovirus type K encoded Np9 oncoprotein induces DNA damage response. 2024. *Journal of Medical Virology*. 96 (3), e29534.

Q Zhang, Y Chen, Z Teng, **Z Lin**, H Liu. CDK11 facilitates centromeric transcription to maintain centromeric cohesion during mitosis. 2024. *Molecular Biology of the Cell*. 35 (2), ar18.

K. MOROZ

Assessing Adequacy: A Meta-Analysis of Rapid Onsite Evaluation of Thyroid Nodules. Issa PP, McCarthy C, Hussein M, Albuck AL, Emad E, Shama M, **Moroz K**, Toraih E, Kandil E. *J Surg Res*. 2024 Apr;296:523-531. doi: 10.1016/j.jss.2024.01.018. Epub 2024 Feb 7. PMID: 38330678

Survival Outcomes of Medullary Thyroid Cancer With and Without Amyloid Deposition. Toraih E, Hussein M, Anker A, Baah S, Pinion D, Jishu J, Sadakkadulla S, Case M, LaForteza A, **Moroz K**, Kandil E. *Endocr Pract*. 2024 Apr;30(4):311-318. doi: 10.1016/j.eprac.2024.01.001. Epub 2024 Jan 5. PMID: 38184237

L. PI

Chunbao Sun, Fanwei Guo, Sreenivasulu Basha, Tian Tian, Brady Jin-Smith, Joshua Barkin, Hanhui Xie, Junmei Zhou, **Xiao-Ming Yin**, Cheng Ling, Bing Sun, Bryon Petersen, **Liya Pi**. Extracellular Matrix Protein 1 Binds to Connective Tissue Growth Factor Against Liver Fibrosis and Ductular Reaction. **Hepatology Communication**, under revision

Chen Zhou, Chunbao Sun, Liya Pi, Chenglong Li. Exploring Degradation of Intrinsically Disordered Protein YAP induced by PROTACs.

BioRxiv 2023.09.19.556013; doi: <https://doi.org/10.1101/2023.09.19.556013>

Journal of Medicinal Chemistry, under revision.

Chen Zhou; Chunbao Sun; Wei Zhou; Tian, Tian; Daniel Schultz; Tong Wu; Mu YU; Lizi Wu; **Liya Pi**; Chenglong Li. Development of Novel Indole-Based Covalent Inhibitors of TEAD as Potential Anti-liver Cancer Agents. **Journal of Medicinal Chemistry**, under revision.

Yang Yang, Natacha Jn-Simon, Yonghan He, Chunbao Sun, Peiyi Zhang, Wanyi Hu, Huadong Zeng, Sreenivasulu Basha, Guangrong Zheng, **Liya Pi**, Daohong Zhou. A BCL-xL/BCL-2 PROTAC effectively clears senescent hepatocytes and prevents NASH-driven hepatocellular carcinoma in mice. **Nature Ageing**, under revision.

Wei Ni, Mu Yu, Rongqiang Yang, Jennifer W. Li, Xin Zhou, Ozlem Calbay, **Liya Pi**, Jianrong Lu, Shuang Huang, Lizi Wu. The YAP1-MAML2 fusion drives tumorigenesis and sustains tumor growth. **Molecular Therapy Oncology**, under revision.

D. TIAN:

Teng Z, Yang L, Zhang Q, Chen Y, Wang X, Zheng Y, Tian A, **Tian D**, Lin Z, Deng WM, Liu H. Topoisomerase I is an Evolutionarily Conserved Key Regulator for Satellite DNA Transcription. bioRxiv [Preprint]. 2024 May 5:2024.05.03.592391. doi: 10.1101/2024.05.03.592391. PMID: 38746280.

T. WU:

Ma W, Zhang J, Chen W, Liu N, **Wu T**. The histone lysine acetyltransferase KAT2B inhibits cholangiocarcinoma growth: evidence for interaction with SP1 to regulate NF2-YAP signaling. **J Exp Clin Cancer Res**. 2024 Apr 19;43(1):117. doi: 10.1186/s13046-024-03036-5. PMID: 38641672; PMCID: PMC11027350.

X. XU:

Zhang D, et al. [Single-cell RNA sequencing reveals the process of CA19-9 production and dynamics of the immune microenvironment between CA19-9 \(+\) and CA19-9 \(-\) PDAC.](#) **Chin Med J (Engl)**. 2024.

Maity S, et al. [Mapping dynamic molecular changes in hippocampal subregions after traumatic brain injury through spatial proteomics.](#) **Clin Proteomics**. 2024

Khadka S, et al. [Endogenous glucocorticoids are required for normal macrophage activation and gastric Helicobacter pylori immunity.](#) **bioRxiv**. 2024

Magrath JW, Flinchum DA, Hartono AB, Sampath SS, O'Grady TM, Baddoo M, Haoyang L, **Xu X, Flemington EK, Lee SB**. Transcriptomic analysis identifies B-lymphocyte kinase as a therapeutic target for desmoplastic small round cell tumor cancer stem cell-like cells. **Oncogenesis**. 2024 Jan 4;13(1):2. doi: 10.1038/s41389-023-00504-z. PMID: 38177125

NEW GRANTS AWARDED

Dr. Srikanta Dash was the recipient of an LCRC Seed Grant Award in the amount of \$25,000.
Dr. Chiung-Kuei Huang received an RO1 grant from NIH in the amount of \$299,603 (yr 1).
Dr. Xiao-Ming Yin received an R21 grant from NIH in the amount of \$219,938 (yr 1).

DEPARTMENT NEWS

Evie Burguières, Program Coordinator, made contributions to the recent passage of two impactful bills by the Louisiana State Government that highlight dedication to human health and wildlife conservation.

The first, Louisiana House Bill 641, establishes the Wildlife Rehabilitators License Plate. Proceeds from the sales of these special plates will benefit the NOLA Wildlife Center, providing essential funds to support wildlife rehabilitators across the state. Evie's efforts were crucial in advocating for this initiative, which will ensure that wildlife professionals have the resources needed to care for and protect Louisiana's diverse fauna.

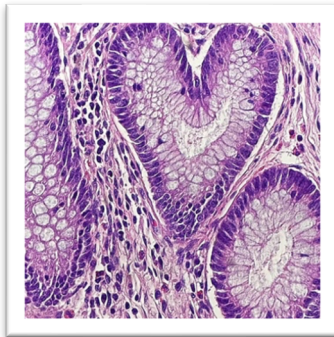
The second piece of legislation, House Bill 854, creates an exemption to existing Wildlife and Fisheries rules for licensed rehabilitators. This bill will greatly benefit the public by

allowing individuals to assist wildlife on a one-animal-at-a-time basis, fostering a community-driven approach to wildlife conservation. Evie's expertise and passion for wildlife were key in shaping this bill, which promises to enhance our state's capacity to respond to wildlife emergencies.

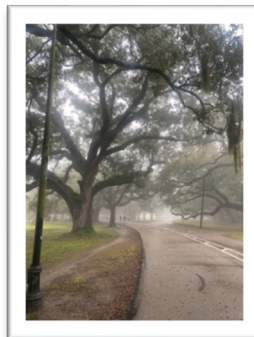
PHOTO CONTEST WINNERS

Winners of the Department's Photo Contest were announced at the Fellow and Resident's Graduation Ceremony: First place was won by Dr. Sarah Lewis for the photo entitled, *Heart* (Below, left). Dr. Farhanaz Panjshiri received the second-place prize for her photo, *Foggy Morning* (Below, Center). Third place went to Dr. Abida Kadi for, *Halloween* (Below, right).

HEART



FOGGY MORNING



HALLOWEEN



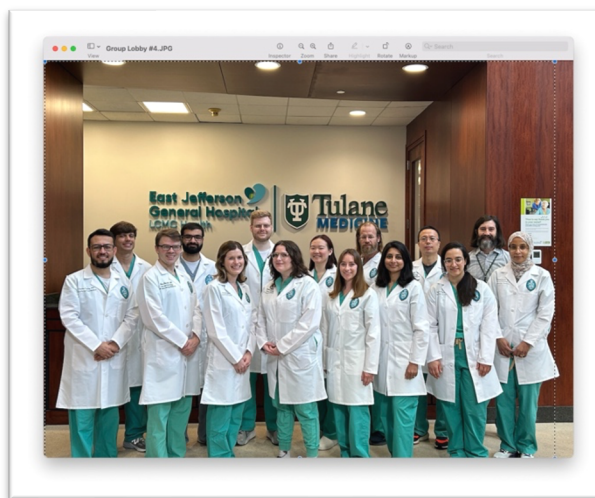
GRADUATION CEREMONY: Front, Center from right to left: Drs. Norah Alghamdi; Matthew Hurford; Krzysztof Moroz; Nina Dhurandhar; Philip Daroca; Dr. Halat and spouse. Center, left to right: Dr. Mercedes Ficarra and spouse.





Faculty celebrate Fellow's and Residents' graduation. From Left to Right: Dr. and Mrs. Abida Kadi; Dr. and Mrs. Tim Peterson; Dr. Edward Martin; Dr. Xiao-Ming Yin (Department Chair), and Dr. Alun Wang.

Bottom, Left: Residents at work in the Microscope Room at East Jefferson. Bottom, Right: 2024-2025 Residents and Fellows with Program Director Dr. Ryan Craig (seen back row, far right).



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