Curriculum Vitae

JIAO LIU, M.D., FACMG

Hayward Genetics Center

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CURRENT STATUS

- Director of Cytogenetics Diagnostic Laboratory, Hayward Genetics Center, Department of Pediatrics, Tulane University
- American Board of Medical Genetics and Genomics (ABMGG) Diplomate Certified in Laboratory Genetics and Genomics
- Course Director of Human Cytogenetics (HMGN 7040-01), Master Program in Medical Genetics & Genomics, Tulane Hayward Genetics Center
- Training Faculty of Tulane University Hematopathology Fellowship Program (ACGME)
- Member of Graduate Education Committee at Tulane Hayward Genetics Center

CERTIFICATION & LICENSE

- ABMGG (American Board of Medical Genetics and Genomics) Certification in Laboratory Genetics and Genomics – 2021177
- LSBME (Louisiana State Board of Medical Examiners) License for Clinical Laboratory Specialist in Molecular and Cytogenetics – 332462

EDUCATION

- **Bachelor of Medicine** (2003-2008) **(U.S.M.D. equivalent)**
  Jianghan University, Wuhan, Hubei, China
- **Master of Anesthesiology** (2008-2011)
  Tongji Medical College of Huazhong University of Science and Technology, Wuhan, Hubei, China

PROFESSIONAL EXPERIENCES

2022-current

Assistant Professor (Clinical Track), Department of Pediatrics, Tulane University School of Medicine

Director of Cytogenetics Diagnostic Laboratory, Hayward Genetics Center, Department of Pediatrics, Tulane University School of Medicine

Adjunct Assistant Professor, Department of Pathology and Laboratory Medicine, Tulane University School of Medicine

2019-2022

Laboratory Genetics and Genomics Fellow (including Cytogenetics and Molecular Genetics) (ABMGG-accredited Fellowship Program) in Hayward Genetics Center of Tulane University School of Medicine

2017-2019

Research Associate III in the Cancer Center of Louisiana State University Health Science Center (LSUHSC). Investigate the correlation between obesity and liver cancer development and explore the related treatment

2010-2017

Research Associate in Pediatric Nephrology of Tulane University. Understand the metabolic mechanisms during kidney development

2008-2011

Clinical Resident Training in Department of Anesthesiology at Wuhan Union Hospital (China), responsible for performing anesthesia on patients.

2007-2008

Internship at Wuhan No.1 Hospital for multi-departmental rotations, including departments of Respiratory, Cardiology, Nephrology and Electrocardiography, etc.

TEACHING AND TRAINING EXPERIENCE

- Course Director of Human Cytogenetics (HMGN 7040-01), Master Program in Medical Genetics & Genomics, 2022-Present
- Lecturer of two genetics classes in T1 Course-Endocrine Reproduction Module of MD program, 2021-Present
- Lecturer of two classes in Human Molecular Genetics and Genomics (HMGN 7060-01), Master Program in Medical Genetics & Genomics, 2019-2021
- Cytogenetics Laboratory Training for Pathology Resident and Fellow
  - ✓ Elizabeth Bozner (Nov 2024) – PGY-I upon rotation in Cytogenetics laboratories.
  - ✓ Konrad Bach, MD (Jun 2024) – PGY-III upon rotation in Cytogenetics laboratories.
  - ✓ Yuhua Xue, MD (May 2024) – PGY-II upon rotation in Cytogenetics laboratories.
  - ✓ Robert Wood, MD (Mar 2024) – PGY-IV upon rotation in Cytogenetics laboratories.
  - ✓ Ghaidaa Majari, MD (Jan 2024) – PGY-II upon rotation in Cytogenetics laboratories.
  - ✓ Ross Bonnot, MD (Oct 2023) – PGY-II upon rotation in Cytogenetics laboratories.
  - ✓ Younes Aljohmani, MD (June 2023) – PGY-III upon rotation in Cytogenetics laboratories.
  - ✓ Walter Beversdorf, MD (Oct 2022) – PGY-V upon rotation in Cytogenetics laboratories.

PUBLICATION

1. Upadia, J., **Liu, J.**, Bier, C., Chenevert, M., & Li, Y. (2025). Diverse Clinical Presentation of RAC1-Related Intellectual Developmental Disorder. *Am J Med Genet A*, *197*(5), e63991. https://doi.org/10.1002/ajmg.a.63991.
2. **Liu, J.**, Li, Y., Andersson, H. C., & Upadia, J. (2024). Subtelomeric microdeletion in chromosome 20p13 associated with short stature. Clin Case Rep, 12(6), e8927. https://doi.org/10.1002/ccr3.8927.

3. Horton, A. C., Wilkinson, M. M., Kilanowski-Doroh, I., Dong, Z., **Liu, J.**, Ogola, B. O., Visniauskas, B., & Lindsey, S. H. (2024). Dihydrotestosterone induces arterial stiffening in female mice. *Biol Sex Differ*, *15*(1), 9. https://doi.org/10.1186/s13293-024-00586-3.

4. **Liu J,** Gajewski K, Upadia J. Chromosome 12p12.2p11.22 deletion in a patient with ventricular fibrillation, mitral valve prolapse, dilation of aorta and intellectual disability: a case report. Clin Case Rep J. 2023;4(3):1–5.

5. Sanchez-Pino, M. D., W. S. Richardson, J. Zabaleta, R. T. Puttalingaiah, A. G. Chapple, **J. Liu,** Y. Kim, et al. "Increased Inflammatory Low-Density Neutrophils in Severe Obesity and Effect of Bariatric Surgery: Results from Case-Control and Prospective Cohort Studies." EBioMedicine 77 (Mar 2022): 103910. https://doi.org/10.1016/j.ebiom.2022.103910. https://www.ncbi.nlm.nih.gov/pubmed/35248994.

6. Liu, H., S. Chen, X. Yao, Y. Li, C. H. Chen, **J. Liu**, Z. Saifudeen, and S. S. El-Dahr. "Histone Deacetylases 1 and 2 Regulate the Transcriptional Programs of Nephron Progenitors and Renal Vesicles." Development 145, no. 10 (May 18 2018). https://doi.org/10.1242/dev.153619. https://www.ncbi.nlm.nih.gov/pubmed/29712641.

7. **Liu, J**., F. Edgington-Giordano, C. Dugas, A. Abrams, P. Katakam, R. Satou, and Z. Saifudeen. "Regulation of Nephron Progenitor Cell Self-Renewal by Intermediary Metabolism." J Am Soc Nephrol 28, no. 11 (Nov 2017): 3323-35. https://doi.org/10.1681/ASN.2016111246. https://www.ncbi.nlm.nih.gov/pubmed/28754792.

8. El-Dahr, S. S., Y. Li, **J. Liu**, E. Gutierrez, K. S. Hering-Smith, S. Signoretti, J. C. Pignon, S. Sinha, and Z. Saifudeen. "P63+ Ureteric Bud Tip Cells Are Progenitors of Intercalated Cells." JCI Insight 2, no. 9 (May 4 2017).

https://doi.org/10.1172/jci.insight.89996.
https://www.ncbi.nlm.nih.gov/pubmed/28469077.

9. Li, Y., **J. Liu**, W. Li, A. Brown, M. Baddoo, M. Li, T. Carroll, et al. "P53 Enables Metabolic Fitness and Self-Renewal of Nephron Progenitor Cells." Development 142, no. 7 (Apr 1 2015): 1228-41. https://doi.org/10.1242/dev.111617. https://www.ncbi.nlm.nih.gov/pubmed/25804735.
10. Li, W., **J. Liu**, S. L. Hammond, R. B. Tjalkens, Z. Saifudeen, and Y. Feng. "Angiotensin Ii Regulates Brain (Pro)Renin Receptor Expression through Activation of Camp Response Element-Binding Protein." Am J Physiol Regul Integr Comp Physiol 309, no. 2 (Jul 15 2015): R138-47. https://doi.org/10.1152/ajpregu.00319.2014. https://www.ncbi.nlm.nih.gov/pubmed/25994957.
11. Li, Y., **J. Liu**, N. McLaughlin, D. Bachvarov, Z. Saifudeen, and S. S. El-Dahr. "Genome-Wide Analysis of the P53 Gene Regulatory Network in the Developing Mouse Kidney." Physiol Genomics 45, no. 20 (Oct 16 2013): 948-64. https://doi.org/10.1152/physiolgenomics.00113.2013. https://www.ncbi.nlm.nih.gov/pubmed/24003036.
12. Saifudeen, Z., **J. Liu**, S. Dipp, X. Yao, Y. Li, N. McLaughlin, K. Aboudehen, and S. S. El-Dahr. "A P53-Pax2 Pathway in Kidney Development: Implications for Nephrogenesis." PLoS One 7, no. 9 (2012): e44869. https://doi.org/10.1371/journal.pone.0044869. https://www.ncbi.nlm.nih.gov/pubmed/22984579.
13. Liu, H., T. Zhou, **J. Liu**, Y. Tong, and J. S. Shanewise. "Inferior Wall Diverticulum of Left Ventricle Coexisting with Mental Retardation and Atrial Septal Defect." Middle East J Anaesthesiol 21, no. 6 (Oct 2012): 895-8. https://www.ncbi.nlm.nih.gov/pubmed/23634576.

14. Zhou M, Xia H, Xu Y, Xin N, **Liu J**, Zhang S. *Anesthetic action of volatile anesthetics by using Paramecium as a model.* Journal of Huazhong University of Science and Technology. Medical Science, 2012 Jun;32(3):410-4. Epub 2012 Jun.

CONFERENCE ABSTRACT & PRESENTATION

1. **Jiao Liu**, Jariya Upadia. " Interstitial 12p deletion spanning the ABCC9 gene presenting with ventricular fibrillation phenotype: a case report." SERGG, 07/2022 Asheville, USA
2. **Jiao Liu**, Samir S. El-Dahr, Zubaida R. Saifudeen." Metabolic Fitness in Nephron Progenitor Renewal." ASN,11/2014 Philadelphis, USA.
3. Yuwen Li, **Jiao Liu**, Marilyn Li, Samir S. El-Dahr, Zubaida R. Saifudeen." p53 Promotes Adhesion of Six2+ Cells within the Nephron Progenitor Niche " ASN, 11/2013 Atlanta, USA
4. **Jiao Liu**, Zubaida Saifudeen, Samir El-Dahr. "P53 Regulates progenitor cell renewal and survival in the nephrogenic niche of the developing kidney" SSPR: 02/2013, New Orleans, LA, USA
5. Zubaida Saifudeen, **Jiao Liu**, Yuwen Li, Thomas Carroll and Saimir S. El-Dahr."P53 Regulates Progenitor Cell Renewal in the Nephrogenic Niche of the Developing Kidney". ASN Annual Meeting poster presentation, 11/2012, San Diego, USA.
6. Zubaida Saifudeen, **Jiao Liu**, Yuwen Li, Susana Dipp, and S.S.El-Dahr. “P53 in the cap mesenchyme regulates nephron endowment”, ASN Annual Meeting poster presentation, 11/2011, Philadelphia, USA.
7. Henry Liu[1], **Jiao Liu[1]**, Marilyn M. Li[1], Mingbing Chen[2], Juan Tan[2], Santiago Gomez[1], Michael Yarborough[1], Sabrina Bent[1], Alan Kaye[3], Francis A. Rosinia[1]. "Effects of Milrinone on gene expressions related to endothelial cell adhesion in cultured cardiomyocytes" ASA: 10/2013 San Francisco, California

8. Henry Liu, **Jiao Liu**, Marilyn M. Li, Charles Fox, Santiago Gomez, Francis A. Rosinia, Alan Kaye. Effects of Milrinone on gene expressions related to activation of peritoneal macrophages in cultured rat cardiomyocytes. SCA: 4/2013 Miami, Florida

9. Yiru Tong, **Jiao Liu**, Nakeisha Pierre, Sabrina Bent, Ting Zhou, You Shang, Santiago Gomez, Francis A. Rosinia, Alan D. Kaye, Henry Liu. Effects of epinephrine on Williams-Beuren Syndrome-related gene expressions in cultured cardiomyocytes. ASA: 10/2012 Washington DC

10. Henry Liu, M.D., **Jiao Liu,** M.D., Ting Zhou, M.D., Yiru Tong, M.D., Santiago Gomez, M.D., Nakeisha Pierre, M.D., Charles Fox, M.D., Amanda Gelineau, M.D., Alan Kaye, M.D.,Ph.D., Francis Rosinia, M.D. Effects of Epinephrine on Myocardial Ischemia-Related Gene Expression in Cultured Rat Cardiomyocytes . ASA: 10/2012 Washington DC

11. Liu H, **Liu J**, Kalarickal PL, Bent S, Fox CJ, Rosinia FA, Li MM, Kaye AD. Changes of gene expression related to activation of peritoneal and epithelial macrophages induced by digoxin exposure in cultured rat cardiomyocytes. SCA Annual Meeting 2012, Boston, USA

12. Henry Liu, M.D., **Jiao Liu,** M.D., Philip L. Kalarickal, M.D., MPH, Sabrina Bent, M.D., Charles J. Fox, M.D., Frank A. Rosinia, M.D., Marilyn M. Li, M.D., Alan Kaye, M.D., Ph.D.Changes of gene expression related to activation of peritoneal and epithelial macrophages induced by digoxin exposure in cultured rat cardiomyocytes. SCA: 4/2012, Savannah, Georgia.

13. Henry Liu, MD, **Jiao Liu**, MD, Xiaofeng Hu, MD, PhD, Judson Mehl, M.D., Okeisha Pierre, MD, Charles J. Fox, MD, Marilyn M. Li, MD, Alan D. Kaye, PhD, MD. Effects of epinephrine and milrinone on the gene expression levels of myocardial hypertrophy-related genes in cultured rat cardiomyocytes. ASA:2011 Chicago, Illinois