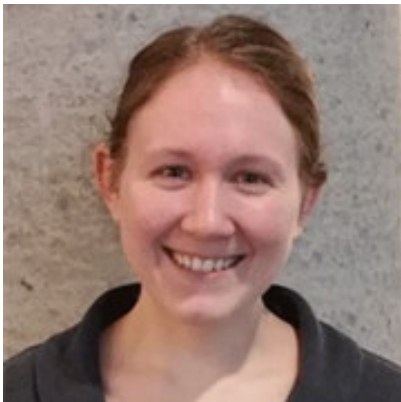




The University of Alabama at Birmingham

Department of Genetics Summer 2023 Newsletter

New Assistant Professor Joins Department



Coral Wille, Ph.D. is a new Assistant Professor in the Department of Genetics. She completed her Ph.D. in Microbiology at the University of Wisconsin-Madison in the laboratory of Dr. Shannon Kenney. There, she investigated how the pervasive human pathogen Epstein-Barr virus (EBV) co-opts host epigenetic machinery to regulate its lifecycle.

She was the first to discover a mammalian virus containing the DNA modification 5-hydroxymethylcytosine, and moreover, how its dysregulation is a feature of EBV-mediated transformation.

[Read More](#)

Newest Faculty Member Joins Genetics



Zhangli Su obtained her Ph.D. in Cellular and Molecular Biology at the University of Wisconsin-Madison, where she focused on investigating the relationship between chromatin-reading modules and histone modifications in John Denu's lab.

Following that, she pursued postdoctoral training in non-coding RNAs under the mentorship of Anindya Dutta at University of Virginia. During this time, she characterized the role of tRNA cleavage in stress response and the gene regulatory functions of tRNA-derived fragments (tRFs) by integrated -omics datasets.

[Read More](#)

Assistant Director of Cytogenetics Lab Named



Yunjia Chen, Ph.D. joined the Department of Genetics Faculty on July 1st, 2023. Dr. Chen finished his UAB Laboratory Genetics and Genomics (LGG) clinical fellowship, which ended on June 30th, 2023, and now serves as the Assistant Director of the Cytogenetics Lab working closely with Dr. Andrew J. Carroll and Dr. Fady M. Mikhail. More on Dr. Chen will be featured in a later edition of the newsletter.

Faculty Member Receives Multiple Awards



Keshav Singh, Ph.D. was the recipient of several awards over the past few months as a representative of our department!

Dr. Singh received the Indian Icon Award for Company of the Year as the Scientific Founder for his startup, Yuva Biosciences, at the Pride India Awards in Bengaluru, India.

At the 2023 Aesthetics Tech Forum, Yuva Biosciences received the People's Choice Award. The award was contested for by more than 600 participants, including technologists, scientists, and physicians from across the globe.

This past June, Dr. Singh was one of the featured speakers at the World Stem Cell Summit at Wake Forest University. The purpose of the summit was to provide platforms to discuss advancing medical research "to accelerate regenerative medicine to improve health and deliver cures."

Congratulations to Dr. Singh on his many accomplishments, and we look forward to seeing what's next!

Department Member Begins Fellowship Training



Min Gao, Ph.D. started the UAB Laboratory Genetics and Genomics (LGG) clinical fellowship training on July 1st, 2023, which is a 3-year fellowship accredited by Accreditation Council for Graduate Medical Education (ACGME) with rotations in the Cytogenetics and Medical Genomics Labs.

Upon completion of her training program, she will be eligible to sit for the exam to become certified by the American Board of Medical Genetics and Genomics (ABMGG) in this specialty.

UAB Genetics Personnel Attend SERGG Meeting



The annual Southeastern Regional Genetics Group (SERGG) meeting took place from July 13 – 15 in Charleston, SC and the Department of Genetics was well represented: attendees included several faculty (Yulong Fu, Anna Hurst, Bruce Korf, and Dan Sharer) and trainees (Alex Davis and Shahad Salman).

Accredited Fellowship Aimed for by Department Member



Kristin Linscott, MD, Ph.D. started the UAB Clinical Biochemical Genetics fellowship training in the Biochemical Genetics and Metabolic Disease Lab on July 1st, 2023. This is an ACGME accredited fellowship.

Upon completion of the 24-month training program, she will be eligible to sit for the exam to become certified by the ABMGG in this specialty.

Former Grad Student Joins Genomic Lab



Brandon Shaw, MS, a certified genetic counselor, joined the Medical Genomics Lab in May 2023. Brandon is an alumnus of the UAB Genetic Counseling training program and previously worked in the lab as a graduate student.

He joins this lab from Sema4/GeneDx where he spent the past four years as a lab genetic counselor focused on variant analysis and reporting.

Department Spotlight: Tanya Wiggins



Tanya Wiggins began her career at UAB in 2007, serving in various grant administration and administrative positions across departments and schools within the Institution. Tanya rejoined the Department of Genetics and Precision Medicine Institute (PMI) in December 2019 in a leadership role, and has excelled in her role that has ultimately evolved into finance.

She is an exceptional leader and an asset to the Department of Genetics and PMI. Her meticulous attention to detail and expertise ensures that resources are well-stewarded.

Tanya's timeliness and proactivity make her highly valued and appreciated, and leads by example through being approachable with an eagerness to share her knowledge.

Tanya enjoys spending time with her son, who keeps her busy as a

baseball mom and is his biggest supporter. In her free time, she enjoys watching mystery and crime shows while exploring new restaurant (especially if it serves seafood).

While some would consider her a foodie, she enjoys the ambiance of restaurants along with its delicious food, as opposed to the atmosphere or entertainment. Tanya also enjoys spending time with her family and friends, and of course, making a difference here at UAB!

Recent Faculty Publications

Outcome Prediction by the 2022 European LeukemiaNet Genetic-risk Classification for Adults with Acute Myeloid leukemia: An Alliance Study. *Leukemia*. 2023 Apr. Mrozek K, Kohlschmidt J, Blachly J, Nicolet D, **Carroll A**, et al. [doi: 10.1038/s41375-023-01846-8](https://doi.org/10.1038/s41375-023-01846-8)

Aging, Plasminogen Activator Inhibitor 1, Brain Cell Senescence, and Alzheimer's Disease. *Aging and Disease*. 2023 Apr 1. Jiang C, Rana T, Jin L, Farr S, Morley J, Qin H, Liu G, **Liu R**. doi: 10.14336/AD.2022.1220

Central Nervous System Status is Prognostic in T-cell Acute Lymphoblastic Leukemia: A Children's Oncology Group Report. *Blood*. 2023 Apr 13. Vol 141, Issue 15. Gossai N, Devidas M, Chen Z, Wood B, Mckay P, Rabin K, Loh M, Raetz E, Winick N, Burke M, **Carroll A**, et al. [doi: 10.1182/blood.2022018653](https://doi.org/10.1182/blood.2022018653)

Abrogation of MAP4K4 Protein Function Causes Congenital Anomalies in Humans and Zebrafish. *Science Advances*. 2023 Apr 28. Vol 9, Issue 17. Patterson V, Ullah F, Bryant L, Griffin J, Sidhu A, Saliganan S, Blaile M, Saena M, Smith R, Ellingwood S, Grange D, Hu X, Mireguli M, Luo Y, Shen Y, Mulhern M, Zackai E, Ritter A, Izumi K, Hoefele J, Wagner M, Riedhammer K, Seitz B, **Robin N**, et al. [doi: 10.1126/sciadv.ade0631](https://doi.org/10.1126/sciadv.ade0631)

Exploring the Role of Mitochondria Transfer/Transplant and their Long Non-coding RNAs in Regenerative Therapies for Skin Aging. *Mitochondrion*. 2023 May. Penaherrera S, Ruiz C, Castaneda V, Livingston K, Barba D, Burzio V, Caicedo A, **Singh K**. [doi: 10.1016/j.mito.2023.02.012](https://doi.org/10.1016/j.mito.2023.02.012)

XRN2 Suppresses Aberrant Entry of tRNA Trailers into Argonaute in Humans and Arabidopsis. *PLOS Genetics*. 2023 May 5. Vol 19, Issue 5. Wilson B, Su Z, Kumar P, Dutta A. [doi: 10.1371/journal.pgen.1010755](https://doi.org/10.1371/journal.pgen.1010755).

Functional Mapping of microRNA Promoters with dCas9 Fused to Transcriptional Regulators. *Frontiers in Genetics*. 2023 May 5. Kumar P, Courtes M, Lemmers C, Digarcher A, Coku I, Montiel A, Hong C, Varrault A, **Liu R**, **Wang L**, Bouschet T. [doi: 10.3389/fgene.2023.1147222](https://doi.org/10.3389/fgene.2023.1147222)

Metabolic Adaptation to Tyrosine Kinase Inhibition in Leukemia Stem Cells. *Blood*. 2023 May 16. Qiu S, Sheth V, Yan C, Liu J, Chacko B, Li H, **Crossman DK**, Fortmann S, et al. [doi: 10.1182/blood.2022018196](https://doi.org/10.1182/blood.2022018196).

Minimal Residual Disease Predicts Outcomes in KMT2A-rearranged but Not KMT2A-germline Infant Acute Lymphoblastic Leukemia: Report from Children's Oncology Group Study AALL0631. *Pediatric Blood & Cancer*. 2023 May 31. Faulk K, Kairalla J, Dreyer Z, **Carroll A**, et al. [doi: 10.1002/pbc.30467](https://doi.org/10.1002/pbc.30467)

Outstanding Outcomes with Two Low Intensity Regimens in Children with Low-risk B-ALL: A Report from COG AALL0932. *Leukemia*. 2023 June. Vol 37, Issue 6. Schore R, Angiolillo A, Kairalla J, Devidas M, Rabin K, Zweidler-McKay P, Borowitz M, Wood B, **Carroll A**, et al. [doi: 10.1038/s41375-023-01870-8](https://doi.org/10.1038/s41375-023-01870-8)

Inherited CSNK2A1 Variants in Families with Okur-Chung Neurodevelopmental Syndrome. *Clinical Genetics*. 2023 July 25. Epub ahead of print. Belnap N, Price-Smith A, Ramsey K, Leka K, Abraham A, Lieberman E, Hassett K, Potu S, Rudy N, Smith K, **Mikhail FM**, et al. [doi: 10.1111/cge.14408](https://doi.org/10.1111/cge.14408)

Recent Faculty Grant Awards

PI: Lizhong Wang

Sponsor: Mike Slive Foundation

Title: Target Nerve-Tumor Communication to Improve Prostate Cancer Outcomes

Award Amount: \$50,000

Dates: 1/1/2023 to 12/31/2023

PI: Zhangli Su

Sponsor: NIH

Title: The Role of Small RNA Modifications in Glioma

Award Amount: \$249,000

Dates: 7/1/2023 to 6/30/2024

PI: Keshav K. Singh

Sponsor: NASA

Title: Unraveling the Role of Mitochondrial Dysfunction and Senescence on Inhibition of Tissue Regeneration During Spaceflight and Amelioration

Dates: 4/01/2023 – 03/31/2026

PI: Keshav K. Singh

Sponsor: Nathan Shock Centers of Excellence in the Basic Biology of Aging

Title: Establishing Mitochondrial Dysfunction as a Hallmark of Ovarian Aging (Pilot Project)

Welcome to the Department

New Staff

Ross Missildine

Fnu Nilesh Kumar

Gurprett Kaur

New Post-Docs

Stephanie Felker

New

Faculty/Researchers

William Bradley

Cameron Church

Kiran Kumar Reddi

Beining Tian

New

Volunteers/Student

Assistants

Samuel Bartley

James Lawlor

Mason Lesort

Jacob Loupe

Kathleen Mallery

BLAZE A NEW CAREER PATH IN TECH TRANSFER

BECOME AN INNOVATE FELLOW



**BILL L. HARBERT INSTITUTE
FOR INNOVATION AND ENTREPRENEURSHIP**

The University of Alabama at Birmingham

Are you a postdoc fellow or a graduate student interested in learning more about technology transfer? Join the UAB Harbert Institute for Innovation and Entrepreneurship as an Innovate Fellow! I-Fellows help the Harbert Institute team manage the newest inventions on campus while also exploring careers within technology transfer.

To learn more about the Innovate Fellows program, see our Innovate Fellows Fact Sheet at www.uab.edu/innovation/images/documents/Innovate_Fellows_fact_sheet.pdf for email

Project Analyst Nadia Cantu-Medellin at ncantu@uab.edu

Innovation Office Hours

A graphic for Innovation Office Hours. The left side has a dark green background with white and yellow text. The right side has a medium green background with a yellow lightbulb icon, three circular portraits of staff members, and the event title in white and yellow text.

**WONDERING
ABOUT
INTELLECTUAL
PROPERTY?
WE'RE HERE
TO CHAT.**

Talk with one of our licensing experts about technology transfer, commercialization, patenting, or anything relating to intellectual property protection.

**INNOVATION
OFFICE
HOURS**

UAB BILL L. HARBERT INSTITUTE FOR
INNOVATION AND ENTREPRENEURSHIP
The University of Alabama at Birmingham

**Virtual Office Hours:
Wednesdays, 1-2 p.m.
Via Zoom**

Do you have questions about intellectual property, technology transfer, or the commercialization process? Are you curious about how to patent an invention, or if you have an invention to begin with?

Are you a first-time inventor and you're not sure where to start? Talk with a licensing associate from the UAB Bill L. Harbert Institute for Innovation and Entrepreneurship during our virtual drop-in office hours!

Find event info and registration link here:

https://calendar.uab.edu/event/innovation-office-hours?utm_campaign=widget&utm_medium=widget&utm_source=The+University+of+Alabama+at+Birmingham#.Y87ic3bMJMs

Important E&M Documentation & Coding Changes

In recent months, many of you and your teams may have heard Dr. Stephen Stair, Brian Bates, and/or members of the UAB Medicine Compliance team discussing the changes to the Evaluation and Management (E&M) Guidelines that went into effect Sunday, January 1, 2023. We want to remind you about the changes to the provider documentation guidelines that will be in place for ALL E&M services.

Overall, we feel that these changes are long overdue and are positive. Instead of harping on missing elements of history (ex., review of systems; past, family, social history) and/or physical exam, we will continue to work with our Providers to best document their medical decision making and/or total time spent in the calendar day caring for a patient.

Links below include key information about these changes:

- Education Slides – Inpatient 2023 New E&M Guidelines
 - Compliance Alert - 2023 AMA CPT E&M Changes
- Pearls of Success – 2023 E&M Guidelines, documentation and coding
 - AMA CPT MDM Table 2023

If you have any questions, please do not hesitate to the UAB Medicine Compliance team at ComplianceBillingInquiry@uabmc.edu or (205) 731-9863.



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Editor: [Ryan McCain](#)

If you have content you would like included in the quarterly newsletter, please contact [Ryan McCain](#).