UTGCP Annual Research Newsletter

April 2025 | Issue No. 6



Class of 2025 and Class of 2026 Thesis Research Alumni and Faculty Research and Publications from 2024



Graduate School of Biomedical Sciences

Learn More about the UTGCP

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Congratulations Class of 2025!

Please consider supporting UTGCP student research efforts through our **Research and Education** Fund.

Click Here



Brenna Albracht Scientific literacy and carrier screening decisionmaking

Chair: Meagan Choates, MS, CGC

Cindy Canales

Denial of inpatient genetic testing: a study on yield and outcomes outpatient

Chair: Kathleen Shields, MS, CGC and Kathryn Leal, MS, CGC

Jessica Clark

"Magic Computer in the Sky" participant perspectives on control and the genetic counseling admissions match

Chair: Claire Singletary, MS, CGC

Nadia English



Spanish-Speaking patient perspectives: benefits and barriers of telemedicine in genetic counseling

Chair: Aranza Gonzalez Cendejas, MS, CGC

Hillary Esplen



Evaluating cancer rates, cancer types, and variant hotspots between different races and ethnicities among individuals with Li-Fraumeni Svndrome

Chair: Jessica Corredor, MS, CGC



Ava Henson

"The Holy Grail of PKU Support": exploring the psychosocial impacts of camps for kids with Phenylketonuria

Chair: Megan Morand, MS, CGC



Karli Liwingston

Impact of personal and family history of Huntington's Disease on the decision and ability to obtain life, longterm care, and disability insurances

Chair: Leslie Dunnington, MS, CGC

Farren Lopez

Achieving the Practice-Based Competencies: are more than 50 cases needed?

Chair: Aarti Ramdaney, MS. CGC

Grace Ra



Examination of a reproductive genetics module: does triage to genetic counseling impact prenatal care equitably?

Chair: Blair Stevens, MS, CGC

Nicole Talaba



Chair: Myla Ashfaq, MS, CGC







Introducing the Research of the Class of 2026:

Please consider supporting UTGCP student research efforts through our Research and Education Fund.





Savannah Berger Profiling pathogenic variants and

cancer types in patients with male breast cancer Chair: Hiam Abdel-Salam, MS, CGC

Jolie Bourek



Do patients have preferences with regard to carrier screening panel size?

Chair: Meagan Choates, MS, CGC

Lamia Haque



Exploring how teratogen training impacts genetic counselors' preparedness for teratogen counseling Chair: Myla Ashfaq, MS, CGC





among ophthalmology residents Chair: Kathryn Leal, MS, CGC

Michelle Luong

Genetic counselor perspectives and shift of practice regarding evolving CDHI cancer risks Chair: Maureen Mork, MS, CGC



Sara Pickett

Discussions of disordered eating with metabolic patients Chairs: Danielle Vice, MS, RD, LD and Megan Morand, MS, CGC

Kathryne Rojeck

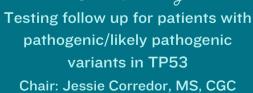
Chart review of personal and family histories of cancer in patients with moderate penetrance breast and ovarian cancer genes Chair: Jessie Corredor, MS, CGC

Jessica Scarlett

Utility of amniocentesis versus screening tests in determining candidacy for prenatal surgery for open neural tube defects Chairs: Rosemary Rogers, MS, CGC and Blair Stevens, MS, CGC

Erin Sharkey





Marissa Williams

Evaluation of diagnostic yield of genetic testing in patients involved in the high-risk clinic at UTHealth: A chart review Chair: Kathryn Leal, MS, CGC



UTGCP Faculty and Alumni Authorship at National and Local Meetings

Only UT-affiliated authors listed

TSGC Annual Educational Conference 2024 "The Value of Your Network"

Sandra Darilek; One case through the specialties: Zellweger spectrum disorder

ACMG Annual Clinical Genetics Meeting MARCH 12-16 • EXHIBIT DATES: MARCH 13-15 METRO TORONTO CENTER • TORONTO, CANADA 194-2024] JOTH ACMG ANNUAL CLINICAL GENETING

2024

Erin Cooney, Megan Morand, Joseph Ray; Outcomes in 14 live births resulting from Pegvaliase-treated pregnancies in PKU-affected females

Laura Farach; Use of dextrose-containing fluids and intralipids in a patient with KCNAI-related neuromyotonia

Nevena Krstic; After Dobbs: Impact of abortion laws on genetics and genomics training & practice

Kathleen Shields, Laura Farach, Paul Hillman; Triple diagnosis of X-linked chondrodysplasia punctata, MECP2related disorder, and mosaic Jacobs syndrome in a male infant via rapid WGS

Kathleen Shields, Samantha Montgomery, David Rodriguez-Buritica; Clinical overlap in two patients with 46,XY DSD and limb abnormalities with identical variant in candidate gene LHX9

Ginger Tsai; Prenatal diagnosis of a novel biallelic ARFGEFIrelated disorder due to uniparental isodisomy: A case report

Ginger Tsai; Optimizing diagnostic potential: Impact of familial sample configurations on exome sequencing

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THE UNIVERSITY OF TEXAS MDAnderson Cancer Center Making Cancer History

Sandra Darilek; Preimplantation genetic testing (PGT) for hereditary cancer syndromes

Brad Rolf; Neurogenetics: Diagnostic dilemmas and therapeutic implications



AMERICAN ACADEMY ON NEUROLOGY

May 31 – June 4, 2024 McCormick Place | Chicago, IL & Online

am.asco.org #ASC024

Catherine Skefos; On the right TRACK: Operationalized a national, patient-centric fully remote precision trial offering comprehensive genomic profiling and a molecular tumor board for rare cancers



Erin Cooney, Megan Morand, Jenny Do; Enhancing trainee education in medical genetics rotations: Exploring the efficacy of video-based learning modalities for core genetics concepts



Meagan Choates, Claire Singletary, Theresa Wittman, Samantha Montgomery, Luana Goulet, Blair Stevens; Prenatal karyotype: Relevant or relic?

Erica Bednar; Hereditary cancer screening



THE POWER OF SHARED PURPOSE: Transforming Gynecologic Cancer Care



UTGCP Faculty and Alumni Authorship at National and Local Meetings

Only UT-affiliated authors listed

Sandra Darilek; Influencing factors and patient decisions regarding mosaic and aneuploid embryo transfer

Sandra Darilek; Perinatal genetic testing uptake and transfer outcomes following mosaic and aneuploid embryo transfer



43rd ANNUAL CONFERENCE • Sept. 17-21, 2024 Ernest N. Morial Convention Center • New Orleans, LA

Hiam Abdel-Salam; Development of a culturally targeted educational intervention to increase cancer genetic counseling utilization among Iranian and Arab populations in the United States

Yusra Aziz; Heterozygous loss of function germline variants in ELPI: A case report of pediatric SHH-activated medulloblastoma

Emma Billings, Leslie Dunnington, Meagan Choates, Syed S. Hashmi, Megan Morand, Jennifer Czerwinski; Inclusion of adoption as a pregnancy managment option in prenatal genetic counseling practice

Rachel Bluebond: Goodbye 96040, Hello 9XIOO: A genetic counseling CPT update for all genetic counselors

Sophia Bradley; Supporting medical examiners' roles in identifying inherited cardiac disease in cases of sudden cardiac death in the young.

Carley Brueckner, Meagan Choates, Theresa Wittman, Blair Stevens; Impact of genetic counseling on patient empowerment after diagnosis of fetal anomaly

Danielle Carr; Genetic services uptake for prostate cancer patients stratified by referring physician and disease stage

Danielle Carr; Landscape of molecular screening program at a community hospital system: Increasing appropriate referrals through alternative service delivery

Danielle Carr; Landscape of molecular screening program at a community hospital system: Yield of germline genetic results

Sandra Darilek; At face value - When carrier screening results may not be what they appear

Sandra Darilek; Genetic counselor value unity: A pilot study

Sandra Darilek; Perceptions of the need and utility of a genetic counselor value unit: An exploratory study

Callie Diamondstein; From conception to cradle: Enhancing perinatal care workflows

Amanda Gerard; Comparing social determinants of health and initial genetics evaluation between inpatient and outpatient settings at Texas Children's Hospital

Laura Hendon; Cell-free DNA results indicating mosaic monosomy X of likely maternal origin: Impact on genetic counseling practices and patient experiences

Laura Hendon; Prenatal genetic counselng challenges with indeterminate SMA results

Ava Henson; Errors in genome sequencing result disclosures by genetic counselors and trained neonatologists: A qualitative content analysis

Maria Hernandez, Meagan Choates, Myla Ashfaq, Megan Morand, Syed S. Hashmi, David Rodriguez-Buritica, Kathleen Shields; Dysmorphology training and utility in genetic counseling

Mindy Kolodziejski, Natalie Stoner, Kathryn Leal, Samantha Montgomery, Shannon Mulligan; Patient understanding of fetal sex versus gender in the context of routine cell-free DNA screening

Nevena Krstic; Understanding the landscape of psychiatric medications in pregnant patients: Implications for prenatal genetic counselors

Michelle Luong; Assessing criteria for germline evaluation based on somatic genetic test results

Jacqueline Mersch; Improving our worth: Impact of billing interventions on reimbursement for preventaive cancer genetic counselor services

UTGCP Faculty and Alumni Authorship at National and Local Meetings

Only UT-affiliated authors listed

Jacqueline Mersch; Working with the "in" crowd: Novel oncology genetic testing inpatient services

Nicholette Murphey, Blair Stevens, Myla Ashfaq, Aranza Gonzalez Cendejas, Theresa Wittman; Comparison of methodologies for prenatal diagnosis of skeletal anomalies

Rachel Notestine, Claire Singletary, Meagan Choates, Molly Daniels; Fraud in genetic testing: Swindling the system

Carol Nowlen; Experiences with genetic services for cystic fibrosis: Perspectives among Latine caregivers of children with cystic fibrosis

Gina Nuccio; A landscape assessment of state medicaid coverage for genetic counseling

Disha Patel, Shannon Mulligan, Natalie Stoner, Gina Sanchez, Meagan Choates; Patient preferences for ultrasound soft sign disclosure with prior negative cfDNA screening

Aarti Ramdaney, Samantha Montgomery, Aranza Gonzalez Cendejas, Brenna Albrecht, Meagan Choates;

Client decision-making following carrier screening results with variable reproductive risk

Jordan Steffen, Jessie Corredor, Leslie Dunnington; Motivations and attitudes for pursuing anonymous genetic testing for Huntinton's disease

Matt Tschirgi; Increasing supply to meet demand: One laboratory's experience expanding student rotation opportunities

Chelsea Wagner; D-[A]I-Y: Practical Implementation of Al into GC practice

Chelsea Wagner, Samantha Montgomery; Navigating the new landscape: A review of evolving abortion legislation impacting genetic counselors' scope of practice

Cathy Wicklund; Assessing the impact of the decreasing workforce of geneticists on the roles and responsibilities of general pediatric genetic counselors



Erin Cooney, Megan Morand, Jenny Do; Enhancing trainee education in medical genetics rotations: Exploring the efficacy of video-based learning modalities for core genetics concepts



Emile Moura Coelho da Silva; Clinical characteristics of 1,000+ epilepsy patients with genetically-assessed etiology at a tertiary care center

Other Notable Talks

Emilyn Banfield; Recruitment and engagement on an international scale: Culture, community, and common ground; Lecture for NIH Genomics and Health Disparities Interest Group

Sandra Darilek, Blair Stevens; Expanded carrier screening: What, when and why is it this complicated? Lecture for UCSF Basic Training in Reproductive Medical Genetics Course

Sandra Darilek, Salma Nassef; Celebrating women's health: Taking control through carrier and cancer screening; Lecutre for Evenings with Genetics Seminar Series at Baylor College of Medicine

Sandra Darilek; Classification investigation - Examining pathogenicity of DMD variants detected on carrier screening; Webinar for American College of Medical Genetics and Genomics Genetics Academy

UTGCP Faculty and Alumni Scientific Publications

Only UT-affiliated authors listed



The American Journal of Human Genetics

Jessica Omark O'Shea. Comprehensive EHMTI variants analysis broadens genotype-phenotype associations and molecular mechanisms in Kleefstra syndrome

Jessica Omark O'Shea. Discovery of a DNA methylation profile in individuals with Sifrim-Hitz-Weiss syndrome

medical genetics

Sandra Darilek. Family Lore, a variant of uncertain significance and CADASIL

Amanda Gerard. Intracranial calcifications simulating Aicardi-Goutières syndrome in PARS2-related mitochondrial disease

Megan Morand, Joseph Ray, Colin Bixler. Expanded prenatal phenotype of ALGI2-associated congenital disorder of glycosylation including bilateral multicystic kidneys

Hope Northrup, Laura Farach. Common epilepsy variants from the general population are not associated with epilepsy among individuals with tuberous sclerosis complex

ANNALS OF SURGICAL ONCOLOGY

THE LEADING RESOURCE IN SURGICAL ONCOLOGY

Catherine Skefos. SDHB-associated pheochromocytomas: What is their clinical behavior?

Birth Defects Research



Nevena Krstic. Impact of perinatal exposure counseling on patient reported emotional outcomes and decisional empowerment

CANCER PREVENTION RESEARCH

Erica Bednar. Exploring the experiences of family communication and cascade genetic testing for hereditary predisposition to cancer in medically underserved populations: A qualitative study



Laura Hendon. Middle ear fibrosis contributes to hearing loss in patients with Myhre syndrome



Catherine Skefos. SDHA secondary findings in germline testing: counseling and surveillance considerations

Familial Cancer

Quarterly Journal on Cancer Genetics

Erica Bednar. Cascade genetic testing: An underutilized pathway to equitable cancer care?

Gina Nuccio. A content analysis of parents' reflections on pathogenic and uncertain pediatric oncology germline sequencing results

UTGCP Faculty and Alumni Scientific Publications

Only UT-affiliated authors listed



Frontiers in Pediatrics

Nicholette Murphey, Kate Richardson, Paul Hillman. Case report: Early acute kidney failure in an II-year-old boy with Dent disease type I



Myla Ashfaq. Developing medical genetics in a lowincome country: Unveiling the journey of the Pakistani Society of Medical Genetics and Genomics (PSMG)

Rachel Notestine, Claire Singletary, Meagan Choates, Molly Daniels. Fraud in genetic testing: Swindling the system



International Journal of Neonatal Screening

Brad Rolf. One size does not fit all: A multifaceted approach to educate families about newborn screening

JCI The Journal of Clinical Investigation

Leslie Granger. Spliceosome malfunction causes neurodevelopmental disorders with overlapping features

Nevena Krstic. Application of the RIME framework in genetic counseling fieldwork training to assess practicebased competencies



Jenny Do. Genetically and clinically confirmed atypical cerebrotendinous xanthomatosis with normal cholesterol and marked elevations of bile acid precursors and bile alcohols

Journal of Community Genetics

Erica Bednar. Feasibility of an environmental scanbased approach to collecting information about factors impacting cancer genetics services in Latin American countries



Jenna Lea, Blair Stevens, Shannon Mulligan, Syed S. Hashmi, Meagan Choates. Non-invasive prenatal screening: testing motivations and decision making in the low-risk population

Gina Sanchez, Syed S. Hashmi, Erica Bednar, Katie Sagaser, Claire Singletary, Aarti Ramdaney. Status of abortion curriculum in genetic counseling: Survey of graduate programs and recent graduates in the United States

UTGCP Faculty and Alumni Scientific Publications

Only UT-affiliated authors listed



Erica Bednar. Delivery of hereditary cancer genetics services to patients newly diagnosed with ovarian and endometrial cancers at three gynecologic oncology clinics in the United States, Brazil, and Mexico

Journal of Immunotherapy and Precision Oncology

Carol Nowlen, Molly Daniels, Jacqueline Harkenrider. Limited independant follow-up with germline testing of variants detected in BRCAI and BRCA2 tumor-only sequencing

THE JOURNAL OF PEDIATRICS

Amanda Gerard. Transient generalized osteosclerosis in a newborn mimicking congenital osteoporosis with negative comprehensive genetic workup: A case report



Carla McGruder. Sounding out solutions: Using SONAR to connect participants with relevant healthcare resources



Catherine Skefos. Metastatic pheochromocytoma and paraganglioma: Integrating tumor biology in clinical practice



Megan Morand, Erin Cooney, Joseph Ray. Outcomes in 14 live births resulting from Pegvaliase-treated pregnancies in PKU-affected females



Amanda Gerard. Variants in the WDR44 WD40-repeat domain cause a spectrum of ciliopathy by impairing ciliogenesis initiation

Journal of

Pediatric Neurology

Jenny Do, Syed S. Hashmi, Hope Northrup, Laura Farach, Kate Richardson. Parenting stress in tuberous sclerosis complex

Laura Farach. Drug-resistant epilepsy in tuberous sclerosis complex is associated with TSC2 genotype: More findings from the preventing epilepsy using vigatrin (PREVeNT) trial

PRENATAL **DIAGNOSIS**

Sandra Darilek. Telegenetics to provide comprehensive prenatal diagnosis

Laura Hendon. Fetal presentation of MYRF-related cardiac urogenital syndrome: An emerging and challenging prenatal diagnosis

The Faces of UTGCP Research



NSGC 2024, New Orleans, Louisiana



Class of 2025 with Claire at TSGC



Students and Faculty at Camp PHEver



Students and Faculty at Lake Olympia Middle School Career Fair



Class of 2025 at Lab Workshop

UTGCP Research and Education Fund Awardees

Distributions from the Genetic Counseling Research and Education Endowed Fund are used to support students enrolled in the genetic counseling program at the MD Anderson UTHealth Houston Graduate School. This past year, distributions directly supported student research projects. These students completed short-term projects focused on clinical care or professional development in genetic counseling. Endowment resources enabled the students to provide incentives to assist with recruiting participants. Those who completed the surveys were entered into a drawing for an Amazon gift card. Gifts to this fund are fundamental to the success of student projects and the completion of their degree program.

Class of 2024

Emma Billings Carley Brueckner Laura Gorecki Maria Hernandez Mindy Kolodzieski Disha Patel Kirstin Risgaard Jordan Steffen

Class of 2023

Latonya Alexander Cindy Hernandez Yusra Aziz Tessa Heller

Class of 2022

Katie Baudoin Emile Moura Coelho da Silva Gina Sanchez Natalie Stoner

Support our students' research efforts!

Please consider financially supporting our students' research efforts through the MD Anderson UT Health Graduate School by selecting "Genetic Counseling Research & Education Endowed Fund" as the designation



Alumni, Students, and Faculty Featured In this Issue

Class of 1993 Cathy Wicklund

Class of 2003 Sandra Darilek

Class of 2006 Jennifer Czerwinski

Class of 2008 Blair Stevens (Faculty) Matt Tschirgi

Class of 2010 Leslie Dunnington (Faculty) Gina Nuccio

> Class of 2011 Laura Hendon

Class of 2012 Nevena Krstic Salma Nassef

Class of 2013 Brad Rolf

Class of 2014

Jacqueline Mersch Shannon Mulligan (Faculty) Aarti Ramdaney (Faculty)

Class of 2015

Callie Diamondstein Carla McGruder Katie Sagaser

Class of 2016

Meagan Choates (Faculty) Jessie Corredor (Faculty) Ginger Tsai Theresa Wittman (Faculty)

> **Class of 2017** Amanda Gerard Leslie Granger Chelsea Wagner

Class of 2018 Jessica Omark O'Shea Kate Richardson (Faculty)

Alumni, Students, and Faculty Featured In this Issue

Class of 2019

Danielle Carr Carol Nowlen Samantha Montgomery (Faculty)

Class of 2020 Aranza Gonzalez Cendejas (Faculty)

Class of 2021

Megan Morand (Faculty) Kathleen Shields

Class of 2022

Emilyn Banfield Jenny Do (Faculty) Jenna Lea Emile Moura Coelho da Silva (Faculty) Gina Sanchez (Faculty) Natalie Stoner

Class of 2023 Yusra Aziz

Class of 2024

Emma Billings Carley Breuckner Maria Hernandez Mindy Kolodzieski Nicholette Murphey Rachel Notestine Disha Patel Jordan Steffen

Class of 2025

Brenna Albrecht Ava Henson

Class of 2026 Michelle Luong

Faculty

Haim Abdel-Salam Myla Ashfaq Erica Bednar Colin Bixler Rachel Bluebond Sophia Bradley Kulkarni Erin Cooney Molly Daniels Laura Farach Luana Goulet Jacqueline Harkenrider Syed S. Hashmi Paul Hillman

Alumni, Students, and Faculty Featured In this Issue

Katie Leal Joseph Ray David Rodriguez-Buritica Claire Singletary Catherine Skefos

To Our Alumni and Faculty Communities:

If you didn't see your research in this issue, we hope to include you next year.

We look forward to seeing your accomplishments and photos!