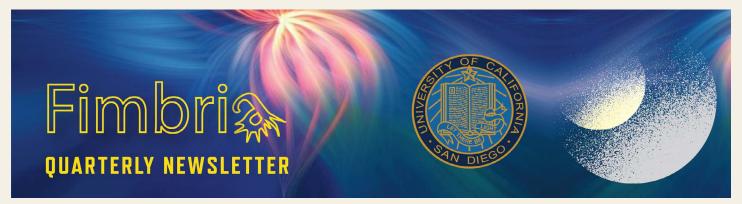
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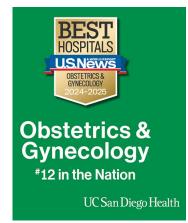
Department of Obstetrics, Gynecology & Reproductive Sciences

WINTER 2025 | VOL. 21









Dear Colleagues,

Welcome to a new year! The Department of OBGYN & RS remains steadfast in our focus to advance women's health through trailblazing research, compassionate clinical care, and pioneering education of trainees, while embracing and advocating for our broad community.

We are thrilled to announce the celebratory ribbon-cutting opening of our new Obstetrics and Gynecology Clinic on Genesee in La Jolla, focusing on gynecological services, including complex family planning services and minimally invasive gynecological surgery (MIGS) – to match growing demand for top-of-the-line clinical services. UC San Diego Health remains the #1 health care provider in the region and tied for #1 in the state, and our department was recently recognized by U.S. News and World Report as one of the "Best Hospitals for Maternity Care" for the third year in a row (U.S. News »)!

Our Center for OB/GYN Research Innovation (CORI ») is forging ahead, with its 5 hubs providing support for new women's health research endeavors.

The Culture & Justice Quorum hosted an MLK Reception and a UC San Diego Health Birth Community Engagement & Symposia: Community Participation in Research strengthening partnerships between UC San Diego Health's Department of Obstetrics, Gynecology, and Reproductive Sciences and our valued community partners to foster equitable and meaningful research initiatives.

In this volume of the Fimbria, we spotlight the lab of Miles Wilkinson, PhD, an award-winning researcher and Distinguished Professor in the Division of Reproductive Endocrinology. Our clinical spotlight for this edition is Obstetrics Refugee and Asylee Case Navigation program led by Audra Meadows, MD, MPH and Eliza Garay, BA, advancing equitable access to obstetric care.

Each year, we publish a new edition of our department CV, the list of accomplishments of department faculty in the last year. The updated CV for 2024 is listed https://example.com/here.

Visit our <u>website</u> for more information on our divisions, clinical programs, novel research, and varied educational offerings. Please enjoy this issue, and email us with any feedback to <u>Fimbria@ucsd.edu</u>.

Thank you!

Cynthia Gyamfi-Bannerman, MD, MS

Samuel SC Yen Endowed Chair

Department Chair, Obstetrics, Gynecology, and Reproductive Sciences

Professor, Maternal-Fetal Medicine, Obstetrics and Gynecology

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Editor & Director of Communications: Sunny Worth

Contact us at: Fimbria@ucsd.edu
Department Curriculum Vitae
Department of OBGYN & RS

FUNDING NEWS

Congrats to recent awardees on funding for impactful research and scientific discovery



Pratibha Binder, MD

Sponsor

The Academy of Clinician Scholars (AOCS)

Grant

"Assessing Patient Satisfaction and Pain Management in Same-Day Discharge Following Robotic Gynecological Surgery"



Axelle Bouche, PhD, Post-doctorate Scholar, The Alperin Lab

Sponsor

San Diego Nathan Shock Center; Salk Institute for Biological Sciences

Grant

"Exploring sexual dimorphism in agingassociated changes of pelvic skeletal muscle stem cells." pilot



Lindsey Burnett, MD, PhD

Sponsor

Locus Biosciences

GrantDouble-blind, Randomized,

Active-controlled, Parallelgroup, Multicenter Study to
Evaluate the Safety,
Tolerability,
Pharmacokinetics, and
Efficacy of LBP-EC01 in the
Treatment of Acute
Uncomplicated Urinary Tract
Infection Caused by Drug
Resistant Escherichia coli
(ELIMINATE trial)



Celeste Lintz, BioE Ph.D. Student

Sponsor

The WHISDEM Center at the UC San Diego Institute of Engineering in Medicine

Grant

The inaugural Fronek
Family WHISDEM
Fellowship award supports
graduate students pursuing
innovative multidisciplinary
research in women's health
and is made possible by the
generous gift to the Shu
Chien - Gene Lay Dept. of
Bioengineering from the
Fronek family

FUNDING NEWS

Congrats to recent awardees on funding for impactful research and scientific discovery



Heidi Cook-Andersen, MD, PhD

Sponsor

National Institute of General Medical Sciences Maximizing Investigators' Research Award (MIRA) (R35)

Grant

"Gene regulatory mechanisms driving development during transcriptional silence from oocyte to embryo in mammals"



Ukachi Emeruwa, MD, MPH

Sponsor

Virginia Commonwealth University / Robert A. Winn Award

Grant

"Evidence-Based Prediction and Prevention of Adverse Outcomes Caused by Postpartum Hypertension"

Ukachi Emeruwa, MD, MPH

Sponsor

UC San Diego Altman Clinical and Translational Research Institute (ACTRI)

Grant

"Wearables to define postpartum longitudinal blood pressure trajectories and facilitate evidence-based monitoring guidelines"



Cecile Ferrando, MD, MPH

Sponsor

Patient-Centered Outcomes Research Institute (PCORI)

Grant

BELIEVE Trial: Bulking vErsus sLing for treating stress urinary IncontinEnce at the time of Vaginal prolapsE Repair

"Comparative Effectiveness of Polyacrylamide Gel and Mid-Urethral Sling for Treatment of Symptomatic Stress Urinary Incontinence at the time of Native Tissue Repair for Pelvic Organ Prolapse" (University Hospitals Cleveland Medical Center, prime)



Kathleen Fisch, PhD

Sponsor

UC San Diego Health Sciences Academic Senate Pilot

Grant

"SSRI-modulated immune interactions at the maternal-fetal interface"



MPI: Kathleen Fisch, PhD MPI: Jessica Kingston, MD

Sponsor

UC San Diego Department of OBGYN & RS Translational Endeavors to Advance Medicine (TEAM) Pilot

Grant

"Clinical outcomes and prediction of SSRI response in pregnancy"



Varykina Thackray, PhD

Sponsor

UC San Diego

Grant

"Resistant Starch Treatment of Polycystic Ovary Syndrome: Impact on Cardiometabolic Dysfunction and the Gut Microbiome" (NIH subcontract in collaboration with U. Penn.)

PUBLICATIONS

Recent Publications of Outstanding Work by Department of OBGYN & RS Members

Sanjay K Agarwal, Michael Stokes, Rong Chen, Cassandra Lickert

<u>Uterine fibroids with heavy menstrual bleeding stratified by race in a commercial and Medicaid database</u> AJOG Global Reports • NOVEMBER 2024

Olivia O Cardenas-Trowers, Tammee M Parsons, Jing Zhao, Ralph B Perkerson 3rd, Christopher C Glembotski, Frederic Zenhausern, Geoffrey C Gurtner, **Marianna Alperin**, Takahisa Kanekiyo

Comparison of Culturing Methods of Primary Vaginal Fibroblasts | Urogynecology • DECEMBER 2024

Natthicha Chainarong, **Tracy Anton**, Gary Satou, Sonia Voleti, Greggory DeVore, Karen Ambrowitz, Mark Sklansky

New Fetal Sonographic Marker to Rule Out Total Anomalous Pulmonary Venous Return: Color Doppler Drainage From Pulmonary Vein to Atrium to Ventricle (CDDVAV) | Echocardiography • DECEMBER 2024

Kirsten Bibbins-Domingo, Linda Brubaker, Greg Curfman

The 2024 Revision to the Declaration of Helsinki: Modern Ethics for Medical Research | JAMA • JANUARY 2025

Linda Brubaker, Gregory Curfman, Joseph S Ross, Kirsten Bibbins-Domingo <u>Health and the 2024 US Election</u> *JAMA* • DECEMBER 2024

Robert B Moreland, Linda Brubaker, Lana Tinawi, Alan J Wolfe

Rapid and accurate testing for urinary tract infection: new clothes for the emperor | Clinical Microbiology Reviews • DECEMBER 2024

Ariana L Smith, Chloe Falke, Kyle D Rudser, Gerald McGwin, Sonya S Brady, **Linda Brubake**r, Kimberly Kenton, **D Wette LaCoursiere**, Cora E Lewis, Lisa K Low, Jerry L Lowder, **Emily S Lukacz**, Elizabeth R Mueller, Diane K Newman, Jesse Nodora, Alayne Markland, Sara Putnam, Leslie M Rickey, Todd Rockwood, Melissa A Simon, Ann Stapleton, Camille P Vaughan, Jean F Wyman, Siobhan Sutcliffe; Prevention of Lower Urinary Tract Symptoms (PLUS) Research Consortium

Bladder health in US women: population-based estimates from the RISE FOR HEALTH study | AJOG • NOVEMBER 2024

Mitchell D Creinin, Lori M Gawron, Andrea H Roe, Paul D Blumenthal, Christy M Boraas, Melody Y Hou, Colleen McNicholas, Mary Jo Schreifels, Kevin Peters, **Kelly Culwell**, David K Turok; Copper 175mm(2) IUD Phase 3 Clinical Investigator Group

Three-year efficacy, safety, and tolerability outcomes from a phase 3 study of a low-dose copper intrauterine device | Contraception • NOVEMBER 2024

Izabela Chudzicka-Strugała, Anna Kubiak, Beata Banaszewska, Ewa Wysocka, Barbara Zwozdziak, Martyna Siakowska, Leszek Pawelczyk, **Antoni J Duleba**

<u>Six-month randomized</u>, <u>placebo controlled trial of synbiotic supplementation in women with polycystic ovary syndrome undergoing lifestyle modifications</u> | *Archives of Gynecology and Obstetrics* • DECEMBER 2024

Frances W Grimstad, Elizabeth R Boskey, Rachael S Clark, Cecile A Ferrando

<u>Management of breakthrough bleeding in transgender and gender diverse individuals on testosterone</u> | *AJOG* • NOVEMBER 2024

Ukachi N Emeruwa, Hooman Azad, Samsiya Ona, Shai Bejerano, Sarah Alnafisee, Jordan Emont, Sharon Mathewm, Michelle Batlle, Denice Arnold, Erinma P Ukoha, **Louise C Laurent, Marni Jacobs,** Janice J Aubey, Russell S Miller, **Cynthia Gyamfi-Bannerman**

<u>Lasix for the prevention of de novo postpartum hypertension: a randomized placebo-controlled trial (LAPP Trial) | AJOG • JANUARY 2025</u>

Susana Banerjee, **Ramez N Eskander**, Tom Bailey, Will Ambler, Stephanie Volpe, Ozan Özgören, Jacek P Grabowski, Giorgio Valabrega

Physician knowledge, use, and perceptions of genetic biomarker testing for the management of patients with newly diagnosed advanced ovarian cancer: an international physician survey | Future Oncology • JANUARY 2025

Rachel E Schafer, R'ay Fodor, Riley Marlar, Kate K Jensen, Abigail Meyers, Raymond Isakov, **Cecile Ferrando**, Antonio Rampazzo, Bahar Bassiri Gharb

Nonbinary and Transgender Male Patient Preferences for Gender-Affirming Top Surgery | Annals of Plastic Surgery • NOVEMBER 2024

Lauryn C Gabby, Chelsea K Jones, Brendan B McIntyre, Zoe Manalo, Morgan Meads, Donald P Pizzo, Jessica Diaz-Vigil, Francesca Soncin, **Kathleen M Fisch, Gladys A Ramos, Marni B Jacobs**, Mana M Parast

<u>Chronic villitis as a distinctive feature of placental injury in maternal SARS-CoV-2 infection</u> *AJOG* • JANUARY 2025

Mahmoud Abdelwahab, Jessica A de Voest, Torri D Metz, Brenna L Hughes, William A Grobman, George R Saade, Tracy A Manuck, Monica Longo, Hyagriv N Simhan, Dwight J Rouse, Hector Mendez-Figueroa, **Cynthia Gyamfi-Bannerman**, Jennifer L Bailit, Maged M Costantine, Harish M Sehdev, Alan T N Tita; Eunice Kennedy Shriver National Institute of Child Health Human Development Maternal-Fetal Medicine Units Network, Bethesda, MD, United States

Gestational Weight Gain and Neonatal Biometry during the COVID-19
Pandemic: A Multicenter Observational Cohort | American Journal of
Perinatology • JANUARY 2025

Moti Gulersen, Cynthia Gyamfi-Bannerman

What is the evidence? Updates in the use of antenatal corticosteroids for patients at risk of preterm birth | European Journal of Obstetrics & Gynecology and Reproductive Biology • DECEMBER 2024

Mark A Clapp, Siguo Li, Jessica L Cohen, **Cynthia Gyamfi-Bannerman**, Amy B Knudsen, Scott A Lorch, Tanayott Thaweethai, Jason D Wright, Anjali J Kaimal, Alexander Melamed

Betamethasone Exposure and Neonatal Respiratory Morbidity

Among Late Preterm Births by Planned Mode of Delivery and Gestational Age | Obstetrics & Gynecology • DECEMBER 2024

Grecio J Sandoval, Torri D Metz, William A Grobman, Tracy A Manuck, Brenna L Hughes, George R Saade, Monica Longo, Hyagriv N Simhan, Dwight J Rouse, Hector Mendez-Figueroa, **Cynthia Gyamfi-Bannerman**, Angela C Ranzini, Maged M Costantine, Harish M Sehdev, Alan T N Tita; Eunice Kennedy Shriver National Institute of Child Health Human Development Maternal-Fetal Medicine Units Network, Bethesda, MD

<u>Prediction of COVID-19 Severity at Delivery after Asymptomatic or Mild COVID-19 during Pregnancy</u> | *American Journal of Perinatology* • DECEMBER 2024

PUBLICATIONS

Recent Publications of Outstanding Work by Department of OBGYN & RS Members

Christina M Eckhardt, Haotian Wu, Gabriela Jackson, Marisa H Sobel, Tessa Bloomquist, Adnan Divjan, Hadler da Silva, Lyle G Best, Shelley Cole, Jason Umans, Ying Zhang, **Peter de Hoff, Louise C Laurent,** Matthew S Perzanowski, Ke Cheng, Andrea A Baccarelli, Tiffany R Sanchez

Extracellular Vesicle-Encapsulated microRNAs and Respiratory
Health Among American Indian Participants in the Strong Heart
Studyl Chest • JANUARY 2025

Marni B Jacobs, Alex E Clark, Nicole H Goldhaber, Holly D Valentine, Andrea Rivera, Toan Ngo, Tom Barber, Jacqueline Holmes, Brittany Manfredi, Aaron F Garretson, William Bray, Rob Knight, Christopher A Longhurst, Aaron F Carlin, **Peter De Hoff, Louise C Laurent**

Antibody Levels from High-Throughput Variant-Specific SARS-CoV-2 Anti-Spike IgG and ACE2 Neutralization Assays Correlate with COVID Infection Risk in a Large Population | The Journal of Infectious Diseases • DECEMBER 2024

Breanna J Reyes, Stephenie Tinoco Calvillo, Arleth A Escoto, Angel Lomeli, Maria Linda Burola, Luis Gay, Ariel Cohen, Isabel Villegas, Linda Salgin, Kelli L Cain, Dylan Pilz, Paul Watson, Bill Oswald, Cesar Arevalo, Jessica Sanchez, Marjorie Richardson, Jennifer Nelson, Pricilla Villanueva, Garrett McGaugh, Ilya Zaslavsky, Robert H Tukey, Nicole A Stadnick, Borsika A Rabin, **Louise C Laurent**, Marva Seifert

Community utilization of a co-created COVID-19 testing program in a US/Mexico border community | BMC Public Health • NOVEMBER 2024

Mahdieh Danesh Yazdi, Allison Sonntag, Anna Kosheleva, Feiby L Nassan, Cuicui Wang, Zongli Xu, Haotian Wu, **Louise C Laurent, Peter DeHoff**, Nicole T Comfort, Pantel Vokonas, Robert Wright, Marc Weisskopf, Andrea A Baccarelli, Joel D Schwartz

The association between toenail metals and extracellular MicroR-NAs (ex-miRNAs) among the participants of the Normative Aging study (NAS) | Environmental Research • NOVEMBER 2024

Emily S Lukacz, Cynthia S Fok, MacKenzie Bryant, Dulce P Rodriguez-Ponciano, Melanie R Meister, Margaret G Mueller, Cora E Lewis, Jerry L Lowder, Ariana L Smith, Ann Stapleton, Amy Ayala, Ratna Pakpahan, Sarah Hortsch, Daniel McDonald, Sara Putnam, Kyle Rudser, Se Jin Song, Rob Knight, **Linda Brubaker**; PLUS Research Consortium

<u>Feasibility of Home Collection for Urogenital Microbiome Samples</u> *Urogynecology* • NOVEMBER 2024

Nemi M Shah, Emily S Lukacz, Kimberly L Ferrante, Shawn A Menefee

<u>Transcutaneous Tibial Nerve Stimulation for Urge Incontinence: A Randomized Clinical Trial | Urogynecology • DECEMBER 2024</u>

Leslie M Rickey, Elizabeth R Mueller, Diane K Newman, Alayne D Markland, Chloe Falke, Kyle Rudser, Ariana L Smith, Margaret G Mueller, Jerry L Lowder, **Emily S Lukacz**; Prevention of Lower Urinary Tract Symptoms (PLUS) Research Consortium

Reliability of Uroflowmetry Pattern Interpretation in Adult Women | Neurourology and Urodynamics • NOVEMBER 2024

Yichi Zhang, Marjaana Ojalill, Antonia Boyer, Xiao Lei Chen, Elise Tahon, Gaëtan Thivolle Lioux, Marvin Xia, Maryam Abbas, Halime Meryem Soylu, Douglas B Flieder, Denise C Connolly, Alfredo A Molinolo, **Michael T McHale**, **Dwayne G Stupack**, **David D Schlaepfer**

Nuclear Focal Adhesion Kinase Protects against Cisplatin Stress in

Ovarian Carcinoma | Cancer Research Communications • DECEMBER 2024

Maya Patel, Ashley N Battarbee, Jerrie S Refuerzo, Noelia Zork, Kacey Eichelberger, **Gladys A Ramos**, Gayle Olson, Celeste Durnwald, Mark B Landon, Kjersti M Aagaard, Kedra Wallace, Christina Scifres, Todd Rosen, Wadia Mulla, Amy Valent, Sherri Longo, Kim A Boggess

Association Between Metformin Use in Early Gestational or Type 2 Diabetes in Pregnancy and Preterm Preeclampsia | Obstetrics & Gynecology • NOVEMBER 2024

Minhazur Sarker, Marni B. Jacobs, Kim Boggess, Ashley N. Battarbee, Jerrie Refuerzo, Noelia Zork, Kacey Eichelberger, Celeste Durnwald, Mark Landon, Kjersti Aagaard, Kedra Wallace, Christina Scifres, Sherri Longo, Alison Stuebe, **Gladys A. Ramos**, the MOMPOD Study Consortium

<u>Breastfeeding patterns among parturients with diabetes: A secondary analysis of the MOMPOD randomized clinical trial</u> Pregnancy • JANUARY 2025

Minhazur R Sarker, Gladys A Ramos, Lauren Ferrara, Chelsea A Debolt Serial Total Bile Acid Measurements in Intrahepatic Cholestasis of Pregnancy | Obstetrics & Gynecology • JANUARY 2025

Minhazur Sarker, Dana Canfield, Lauren Ferrara, Gladys A Ramos, Chelsea DeBolt

Adverse Outcomes Associated with Progressive Intrahepatic Cholestasis of Pregnancy | American Journal of Perinatology • DECEMBER 2024

Minhazur Sarker, Gladys A Ramos, Lauren Ferrara, Cynthia Gyamfi-Bannerman

Simplifying Management of Cholestasis: A Proposal for a Classification
System | American Journal of Perinatology • DECEMBER 2024

Nasim C Sobhani, Christina S Han, Minhazur R Sarker, Sohum Shah, Gladys A Ramos

<u>Use of a Commercially Available Automated Insulin Delivery System for the Management of Type 1 Diabetes in Pregnancy</u> | Journal of Diabetes Science and Technology • NOVEMBER 2024

Yan Cheng, Yuanhui Zhao, Yu Liu, Yichi Zhang, Dongge Xu, Weikang Sun, Mengyu Zhang, Yuqing Miao, Susu He, Yayi Hou, **Dwayne Stupack**, Erguang Li

<u>Durable antitumor response via an oncolytic virus encoding decoy-resistant IL-18</u> | Journal for Immunotherapy of Cancer • DECEMBER 2024

Xiao Lei Chen, Marjaana Ojalill, Christine Jean, Isabelle Tancioni, Shulin Jiang, **Antonia Boyer**, Duygu Ozmadenci, Sean Uryu, David Tarin, Joseph Schlessinger, **Dwayne G Stupack**, **David D Schlaepfer**

<u>Inducible FAK Deletion but not FAK Inhibition in Endothelial Cells Activates p53</u> to Suppress Tumor Growth in PYK2-null Mice | BioRxiv • NOVEMBER 2024

Danielle Vachon, Marisa C Hildebrand, **Sarah Averbach**, Jema Turk, Jody Steinauer, **Sheila K Mody**

The Impact of Dobbs v. Jackson on Abortion Training in Obstetrics and Gynecology Residency Programs: a Qualitative study | Contraception • DECEMBER 2024

Timothy Wen, Alexander M Friedman, **Cynthia Gyamfi-Bannerman**, Camille E Powe, Nasim C Sobhani, **Gladys A Ramos**, Steven Gabbe, Mark B Landon, William A Grobman, Kartik K Venkatesh

<u>Diabetic Ketoacidosis and Adverse Outcomes Among Pregnant Individuals With Pregestational Diabetes in the United States, 2010-2020</u> | Obstetrics & Gynecology • NOVEMBER 2024

Rachel L Wiley, Ipsita Ghose, Dana R Canfield, Minhazur R Sarker, Hector Mendez-Figueroa, Suneet Chauhan

Immediate skin-to-skin contact and postpartum hemorrhagic morbidity | International Journal of Gynecology & Obstetrics • JANUARY 2025

NEWSBYTES

Recent News Featuring Department of OBGYN & RS



News featuring OBGYN & RS, Cynthia Gyamfi-Bannerman, MD, MS. Audra Meadows, MD, and Maryam Tarsa, MD

New Bundle of Joy: UC San Diego Health Delivers Highest Ranking for Obstetric, Infant Care | UC San Diego Today • DECEMBER 2024



Podcast featuring Sanjay Agarwal, MD

A Podcast on Patient and Physician Perspectives on the Management of Endometriosis and Relugolix Combination Therapy Advances in Therapy • DECEMBER 2024

News featuring **Jessica Kingston**, **MD**

News featuring Audra Meadows, MD, MPH

CDC • MMR vaccine is very effective at protecting people against measles, mumps, and rubella, and preventing the complications caused by these diseases | Cobb Institute • JANUARY 2025

News featuring Sheila Mody, MD, MPH

<u>Very Early Abortion Non-Inferior to Standard Medication Abortion</u> <u>Timing | MedPage Today</u> • NOVEMBER 2024

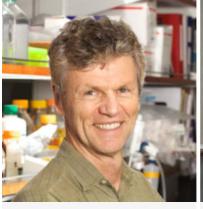
News featuring William Parker, MD

You Had a Hysterectomy. What Did the Doctor Leave Behind? | New York Times • DECEMBER 2024

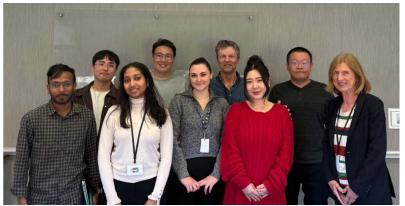


LABORATORY IN THE SPOTLIGHT Featuring OBGYN & RS Groundbreaking Research Endeavors

MILES WILKINSON, PhD, primarily studies the convergence of FERTILITY with GENE REGULATORY CIRCUITS



Miles Wilkinson, PhD



Dr. Wilkinson's Lab Team

LABORATORY IN THE SPOTLIGHT Featuring OBGYN & RS Groundbreaking Research Endeavors

Bored by his Biology class in high school in Oregon, Dr. Wilkinson's first real excitement about science didn't come until his 3rd year as an undergraduate at UCSB (in the late 1970s) when he learned about molecular biology. Feeding this interest were courses he took earlier on Physical Anthropology and Nutrition, where he learned about genetic mutations, primate evolution, and the Kreb (citric acid) cycle. Fueled by these various interests, Dr. Wilkinson did a full-time Honors course in Genetics for his final year of undergraduate studies at the University of Edinburgh, only 2 miles from where he was born. His Honor thesis project was focused on transposable elements (a topic he returned to recently that was made famous by the Nobel Prize winner, Barbara McClintock, who initially struggled to have her findings on "jumping genes" accepted).

Dr. Wilkinson then moved "down south" to University of Warwick in England to do his PhD studies. His initial interest was to do his dissertation on a "new topic" (at the time) of "genetic engineering," but his experiments took a turn and he ended up doing a cellular immunology project involving a potential cancer cure. Working in the UK was exciting, as it gave Dr. Wilkinson opportunities to attend conferences all across Europe. His PhD training gave him a foundation in immunology, which turned out to be critical for landing his first two faculty jobs, both of which required him to be the course director of different immunology courses (for medical, nursing, and graduate students).

The seeds of Dr. Wilkinson's current research

Dr. Wilkinson's first post-doctoral position (in 1984) involved his traveling "across the pond" from Warwick, England to The Scripps Research Institute (TSRI) right here in San Diego. He chose to study underlying mechanisms causing breast cancer at TSRI but was disillusioned by the large lab (65 people!) and associated chaos. So, Dr. Wilkinson elected to quickly leave and do a second postdoc (in 1985) at the UCSD Cancer Center, which at that time was in Hillcrest. Working under the leadership of Dr. Carol MacLeod, Dr. Wilkinson focused on two main projects that he still works on (in highly "mutated" form") today.

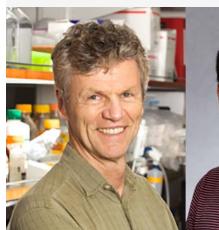
One project involved cloning new genes, since at that time, "the genome" was not sequenced. Among the genes cloned by Dr. Wilkinson was an "oncofetal" gene that he named "reproductive homeobox gene on the X chromosome (Rhox)-5." After he moved to Oregon Health Sciences University (OHSU) as an Assistant Professor, his team discovered that Rhox5 encodes an important transcription factor that is specifically expressed in the reproductive tract. These studies led Dr. Wilkinson down the reproductive biology path, a field of investigation he has focused on ever since.

A major breakthrough made by Dr. Wilkinson's team after moving to M.D. Anderson Cancer Center (in 1994), was that Rhox5 is not an orphan homeobox genes (as Dr. Wilkinson originally thought), but instead it is part of a large gene cluster – indeed, it is the largest homeobox gene cluster in mammals. This finding has shaped much of his laboratory' work since then. The entire 33-gene Rhox cluster is selectively expressed in the male and female reproductive tracts (as well as placenta), leading to his laboratory's over-arching hypothesis that the genes in this giant X-linked cluster encode transcription factors devoted to regulating functions in reproduction. Testing this hypothesis has led Dr. Wilkinson's team to focus on spermatogonial stem cells (SSCs), which his team works on still today (discover Wilkinson lab). SSCs are a potential cure for some forms of infertility.

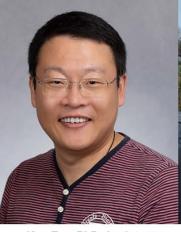
The other project that Dr. Wilkinson worked on as a post-doctoral fellow was "immune gene regulation." This project was focused on T-cell receptor (TCR) genes, which had only just been cloned at the time. Dr. Wilkinson discovered that a weird mechanism was negatively regulating non-productively rearranged TCR genes, but he couldn't figure out what the mechanism was. Not daunted by the challenge, Dr. Wilkinson continued working on this problem as an Assistant Professor at OHSU, where he and his team discovered that "the negative regulation" was a RNA decay mechanism that degrades "bad" mRNAs as well as an interesting subset of normal mRNAs. This RNA turn-over mechanism—later named "nonsense-mediated RNA decay (NMD)—has fascinated Dr. Wilkinson ever since. Several current projects in the laboratory revolve around the NMD pathway, including ascertaining its roles in germ cells and human evolution, as well as determining whether therapeutic manipulation of the NMD pathway can treat genetic diseases caused by nonsense and frameshift mutations (explore Wilkinson lab).

LABORATORY IN THE SPOTLIGHT Featuring OBGYN & RS Groundbreaking Research Endeavors

MEET THE WILKINSON LAB TEAM MEMBERS



Miles Wilkinson, PhD, Wilkinson Lab



Kun Tan, PhD, Assistant Professor



Rakakumar Anbazhagen, PhD, Assistant Project Scientist



Yuna Ha, PhD, Postdoctoral Fellow



Chiara Capponi, PhD, Postdoctoral Fellow



Sai Sahithya Chamarthy, Staff Research Associate



Nandita Rangu, MS Student



Libby Searson, Undergraduate Human Biology



Jenna Cecil, Undergraduate Bioengineering & Biotechnology



Seongmin Jang. PhD, Visiting Scholar



Junho Choe, PhD, Visiting Scholar



Beate Illek, PhD, Electrophysiologist

Wilkinson lab team members (not pictured): Beate Illek, Adjunct Professor UCSD, Junho Choe – Visiting Professor (Hanyang U, S. Korea), Seongmin Jang – Visiting PhD student (Hanyang U, S. Korea), and Jenna Cecil – Undergraduate Bioengineering

LABORATORY IN THE SPOTLIGHT Featuring OBGYN & RS Groundbreaking Research Endeavors



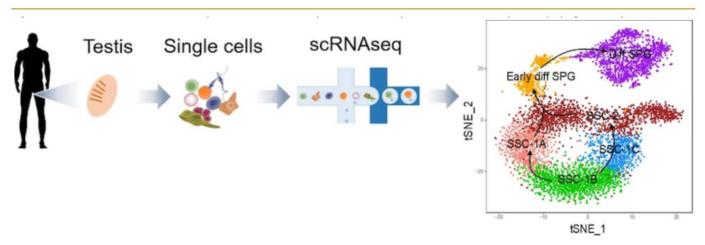
Dr. Wilkinson's Lab Team

Current Research Interests

Dr. Wilkinson lab research interests encompass infertility, germ cells, stem cells, neurons, transcription, and RNA regulation. Explore Dr. Wilkinson's publications and discover latest research into lab grown sperm, gene-editing children, and therapeutic cures for male infertility.

WILKINSON LAB RESEARCH PUBLICATIONS

"There is huge interest in SSCs, not only because of their unique stem cell qualities, but because they have the **potential to cure male infertility**. Towards developing SSC therapy, we have embarked on answering broader questions about SSCs using single-cell RNA-seq (scRNAseq) analysis which has allowed us to define developmental steps by which SSCs form in mice and humans." – Miles Wilkinson, PhD



Dr. Wilkinson Lab Research: Single-cell RNA-sequencing (scRNAseq) analysis defines human spermatogonial cell subsets

Thank you, <u>Dr. Wilkinson Lab</u> for your steadfast dedication to discovering cures and masterminding therapies most critical to reproductive medicine and debilitating disease in human development.

OBGYN & RS Culture & Justice Quorum (CJQ) Spearheads Inclusive Excellence

What is the Culture and Justice Quorum?

Housed within the UC San Diego School of Medicine, the Culture and Justice Quorum, led by Audra Meadows, MD, MPH, Vice Chair of Culture and Justice, was established to ensure our department excellence is inclusive and a place where everyone can thrive. The Quorum is a foundational, departmental racial equity and justice committee designed to take an action-oriented approach to create and sustain department-level initiatives that foster a culture of equity and justice and encourage anti-racist work.

Discover our value statement, explore our opportunities to participate, and visit our website. The Culture & Justice Quorum offers educational CME credit for medical students and residents. CJQ hosts informative Grand Rounds and invites health care experts to present on specialty topics followed by Q&A session. Interested in joining and becoming an ambassador? Contact culture and justice health.ucsd.edu and attend our quarterly meetings for opportunities to become involved. The CJQ is excited to announce Chelsea Saelee as the new Manager for CJQ happenings.

Reverend Martin Luther King, Jr. Parade and Reception

The CJQ hosted its annual MLK Reception with refreshments for the department at the East Campus Office Building on January 22, 2025 to celebrate the inspiring life and legacy of Reverend Dr. Martin Luther King, Jr. Cynthia Gyamfi-Bannerman, MD, MS, Audra Meadows, MD, MPH, and CJQ ambassadors joined Barbara Jung, MD, new Associate Vice Chancellor and Dean of the UC San Diego School of Medicine, and Patty Maysent, UC San Diego Health CEO (not pictured), to march with the UC San Diego Health team at the San Diego MLK Parade.



Cynthia Gyamfi-Bannerman, MD, MS and Barbara Jung, MD, new Associate Vice Chancellor and Dean of the UC San Diego School of Medicine, marching with the UC San Diego Health team at the MLK Parade.

CJQ - CORI Meeting

The Department of Obstetrics, Gynecology, and Reproductive Sciences held its quarterly Birth Community Engagement and Research Symposia: Community Participation and Research moderated by Audra Meadows, MD, MPH at the Tubman Chavez Center on January 24, 2025. Our Center for OB/Gyn Research Innovation made a grand debut presentation to the community. With representation by Healthy Start, Global Communities, and the San Diego County Maternal Child Health (MCH) Team, the goal was to bring together community organizations, health-care clinicians and researchers to discuss strategies for engaging with communities, fostering diversity, building relationships, and cultivating trust to improve research outreach and promote health equity. Other program highlights included:

CULTURE & JUSTICE

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- UCSD OBGYN & RS Chair Welcome Cynthia Gyamfi-Bannerman, MD, MS
- Diverse Research Now Renarda Jones, MS, PhD
- Introduction from CORI Community Partnership Hub Irene Su, MD, MSCE and Nicole Teal, MD, MPH
- Global Action Research Center Paul Watson and Dr. Bill Oswald
- UCSD Center for Community Health Sarah Vicente



Audra Meadows, MD, MPH, Irene Su, MD, MSCE, and Nicole Teal, MD, MPH at the Birth Community Symposia

Diverse Research Now presentation to the community by Renarda Jones, MS, PhD



Cynthia Gyamfi-Bannerman, MD, MS, Audra Meadows, MD, MPH, Nicole Teal, MD, MPH with San Diego community organization leaders at the Birth Community Engagement & Symposia

CULTURE & JUSTICE

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At Your Cervix 2024-2025 Resident leads:

Diversity, Equity, & Inclusion Lead: Rafa Ifthikhar, MD

Advocacy Lead: Jess Rivas, MD

Community Engagement and Service Lead: Milli Desai, MD and Allison Rajan, MD

This issue of Fimbria's At Your Cervix highlights Residents' Holiday Drive

FEEDING SAN DIEGO Holiday Drive

The OBGYN & RS residents and department partnered with local charity, Feeding San Diego, over the holidays. The Feeding San Diego Marketplace is located at UCSD's Sorrento Valley headquarters. The goal was to offer a dignified shopping experience for families in need. This welcoming space allows community members, approximately 380 households per week with 40% identifying as Filipino, to shop once a month for no-cost groceries, including dry goods, frozen protein, and fresh produce. Designed with families in mind, the Marketplace helps parents and caregivers select foods that meet their household's preferences and nutritional needs, ensuring access to healthy, satisfying meals. Around the holidays, generosity and giving spices and baking ingredients through "Spice Up the Pantry" made a difference in the lives of the people who shop there because their meal times with loved ones were more exciting and flavorful.

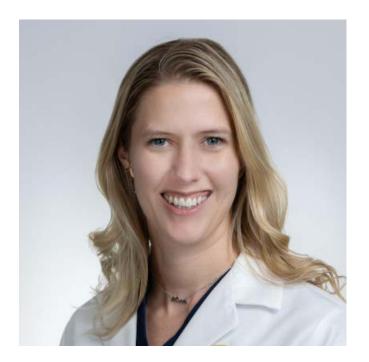


OBGYN & RS Residents' contribute to Feeding San Diego Holiday Drive

Please visit our CJO website to discover more about our Culture and Justice Quorum.

NEW FACULTY HIRES

Welcome to the Department of OBGYN & RS! We're delighted to have you join the team!

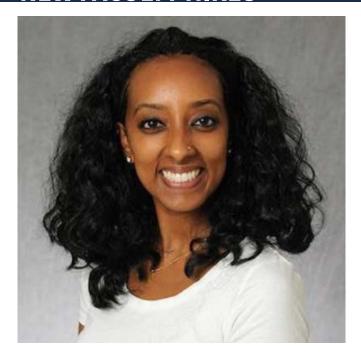


Laura Biver, MD Obstetrics and Gynecology (Generalist) division

Dr. Laura Biver received her Bachelor of Arts and Master's in Public Health degree from University of Virginia. She completed her medical school training and residency at George Washington University School of Medicine and Health Sciences in July of 2024. At GW, she developed an interest in sexual medicine. She plans to continue her education and development of skills in this field. She is new to San Diego area and will be joining the Generalist Division.

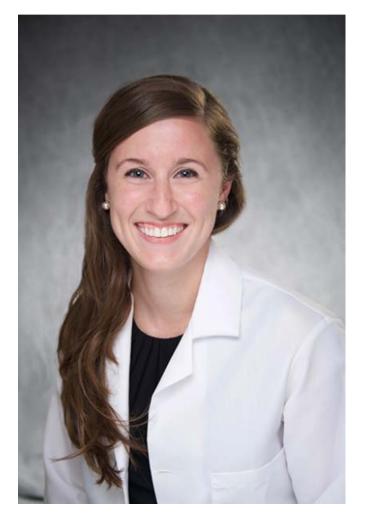
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Selemawit Ghebrendrias, MD Obstetrics and Gynecology (Generalist) division

Dr. Ghebrendrias returns to join the department after having had completed her residency in obstetrics and gynecology at UCSD in 2022. While in residency she was involved in a number of community outreach efforts and spearheaded a host of programs aimed at improving access to quality care for the underserved in San Diego County. Her research focused more specifically on refugee health and the uptake of preventative gynecologic services. From 2022 to 2023 she volunteered as a general obstetrician gynecologist in Asmara, Eritrea and subsequently served from 2023 to 2024 as head of the maternal and gynecology wards of the regional referral hospital in Keren, Eritrea. She is excited now to return to the UCSD family.



Rachel Whynott, MD Reproductive Endocrinology and Infertility division

Dr. Rachel Whynott joins the faculty after serving as an assistant professor and associate fellowship director for the reproductive endocrinology and infertility division at the University of Washington. She completed her fellowship in reproductive endocrinology and infertility at the University of Iowa, and her residency in obstetrics and gynecology at the University of South Florida, where she served as administrative chief resident. She serves as a liaison for the American Society for Reproductive Medicine to the American Medical Association and is highly involved in advocacy. Her research interests include mental health and wellness during infertility testing and treatment, as well as health disparities in fertility medicine. She enjoys spending time at the beach, exploring both locally and abroad, and dreams of using her undergraduate degree in zoology and knowledge of reproduction to join conservation efforts at the San Diego Zoo.

RECENT EVENTS Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement

UC San Diego midwifery and academic research stands out among the world's finest and we're grateful for our talented new Tritons. A warm welcome to newly arriving team members:



Erica Miller, CNM
Certified Nurse-Midwife

Sai Sahithya Chamarthy
Staff Research Associate,
Wilkinson Lab

Vivian Maldonado Assistant Clinical Research Coordinator, Urogyn

Margaret Quattrocchi Research Data Analyst

RECENT EVENTS

Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement



UC San Diego Health Obstetrics and Gynecology Clinic at Genesee Grand Opening

The Department of Obstetrics, Gynecology, and Reproductive Sciences celebrates new clinic opening

RECENT EVENTS

Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement



Society of Maternal-Fetal Medicine (SMFM) Pregnancy Meeting $^{\mathsf{TM}}$

OBGYN & RS faculty, fellows, and residents attended SMFM25 Pregnancy MeetingTM in Aurora, Colorado where they engaged with maternal-fetal medicine colleagues in oral and poster presentations, postgraduate courses, workshops, roundtables, scientific forums, and emerging obstetric science. Our team was presenting or co-author on 5 oral presentations and 20 posters! SMFM President, Cynthia Gyamfi-Bannerman, MD, MS, passed the gavel to incoming President, Dr. Srinivas.



Cynthia Gyamfi-Bannerman, MD, MS with incoming President Dr. Srinivas

Ukachi Emeruwa, MD, MPH SMFM25 oral abstract presenter

Minhazur Sarker, MD SMFM25 oral abstract presenter



OBGYN & RS Holiday Party

OBGYN & RS residents and team members enjoying the department holiday party. Photo by Paloma Garcia.

RECENT EVENTS Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement



Black in Medicine Student Mixer

Audra Meadows, MD, MPH led the 2nd Annual Black in Medicine Mixer with the Student National Medical Association (SNMA) Undergraduate Outreach Committee. Black Pre-Medical Society (BPMS), the Career Center, and the Black Resource Center (BRC) created this networking space for Black folks in medicine.





OBGYN & RS Medical Education

Pratibha Binder, MD (not pictured) and David Klein, MD demonstrate an enriching hands-on learning training session for Medical Students in OB/GYN and Reproductive Sciences at the UC San Diego Center for the Future of Surgery.

Women's Reproductive Health Research (WRHR) Annual Meeting

From Left: Cynthia Gyamfi-Bannerman, MD, MS, Nicole Teal, MD, MPH, Ukachi Emeruwa, MD, MPH, and Louise Laurent, MD, PhD along with Marianna Alperin, MD, MS, and Pamela Mellon, PhD (not-pictured) worked towards progressing women's reproductive research at the NICHD NIH WRHR Scholars annual meeting in North Carolina.

RECENT EVENTS Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement



International Fundamentals of Critical Care Support: Obstetrics course in Riyadh

Scott Harvey was recently invited to Riyadh to teach at the Kingdom of Saudi Arabia's Ministry of National Guard Health Services. In 2023, the Ministry completed the construction of a women's hospital as part of its university expansion. Scott, along with two colleagues from Pennsylvania, was recruited to lead a two-day course on *Fundamentals of Critical Care Support: Obstetrics* for a multidisciplinary group of learners. The course combined didactic lectures and hands-on simulations, focusing on obstetric critical care and tailoring provisions to meet patient needs. Additionally, Scott participated in meetings to review hospital protocols, processes, and strategies for advancing staff, resident, and attending education. This collaboration marks a significant step toward the hospital's vision of becoming the leading women's health center in the Arab world. Lastly, he gave Grand Rounds on Obstetrics Hemorrhage and Thromboelastography to the hospital system, which included the seven campuses around the kingdom that televised the event. Next UCSD FCCS OB course is October 17-18, 2025 at UCSD!



RECENT EVENTS

Department of OBGYN & RS Event Happenings, Member Gatherings, and Community Engagement



ACOG Annual District Meeting

The ACOG Annual District Meeting was held in Waikiki, Honolulu, Hawaii. Maureen Ries, MD served as the Scientific Program Co-Chair.

SAVE THE DATE • UPCOMING EVENTS





Inaugural Women's Health Symposium - Save the Di

April 16, 2025, from 12:30-5:30pm

The UC San Diego Department of Obstetrics, Gynecology, and Reproductive Sciences and our new Center for Ob/Gyn Research Innovation will be hosting the inaugural Women' Health Research Symposium on April 16, 2025, from 12:30-5:30pm at Sanford Consortium for Regenerative Medicine. The main goal of the symposium is to bring together partner research groups across UC San Diego to feature research innovations and resources to further promote team science for advancement of women's health research and health equity. Please, join us for exciting research presentations and flash talks highlighting various UC San Diego research programs, followed by the reception.

UROBIOME 2025

On behalf of Linda Brubaker, MD, Professor of Obstetrics, Gynecology & Reproductive Sciences at UC San Diego, we announce the 2025 Urobiome Conference on February 24.

Researchers will present the emerging science of the **UROBIOME** and its recently discovered implications for human health, including common conditions such as urinary tract infection, urinary incontinence, and bladder overactivity.

ocation:

UC San Diego, Scripps Institution of Oceanography Robert Paine Scripps Forum for Science 8610 Kennel Way, La Jolla, CA 92037

Conference Organizer:

Linda Brubaker, MD
Professor, Urogynecology and Reconstructive Pelvic Surgery
Department of Obstetrics, Gynecology and Reproductive Sciences
University of California San Diego

Agenda and speaker information to follow.

UC San Diego

Center for OB/GYN Research Innovation

Our Center for OB/GYN Research Innovation (\underline{CORI} ») is open with kick-starter pioneering rese endeavors, community outreach, and expanding partnerships. Explore $\underline{clinical\ studies}$ » or request a \underline{C} $\underline{consult}$ »







SAVE THE DATE • UPCOMING EVENTS



FUNDAMENTAL CRITICAL CARE SUPPORT: OBSTETRICS



CONFERENCE DATE: OCT. 17-18, 2025



UCSD Simulation Training Center
UCSD Medical Education and Telemedicine Building
For more information contact the course director:

Scott Harvey, MD, MS, FACOG, FCCM
Dual Board Certified in Obstetrics and Surgical Critical Care
Associate Clinical Professor
Assistant Director of Obstetrics
Sharvey@boalth.ucsd.gdu

The Fundamental Critical Care Support (FCCS): Obstetrics course is designed for intensivists and non-intensivists who may provide maternal /fetal critical care and for clinicians in obstetrics seeking additional education in critical care.

The FCCS-OB course provides a combination of didactic lectures and hands-on skills stations with an emphasis on pregnant patients. The two-day, comprehensive curriculum offers an approach to initial management of the critically ill obstetrics patient for providers not formally trained in critical care.

Participants will learn useful information about the extended care of critically ill obstetrics patients, especially care related to mechanical ventilation, monitoring, organ hypoperfusion and neurological support. Providers will receive guidance for acute problems encountered in the ICU and for sudden obstetrics patient deterioration.

*This course provides CME Credits



Society of Critical Care Medicine



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