# 27<sup>th</sup> Annual Obstetrics, Gynecology & Women's Health

Resident and Fellow Research Day

John A. Burns School of Medicine

Department of Obstetrics, Gynecology

& Women's Health

### 'Ike ia nō ka loea i ke kuahu.

# An expert is recognized by the altar they build.

It is in what one does and how well they do it that shows someone is an expert. In the excellence of their work, they demonstrate the depth of their knowledge and training.



Pukui, M.K. & Varez, D. (1983).

'Ōlelo No'eau: Hawaiian proverbs & poetical sayings.

Honolulu, Hawaiʻi: Bishop Museum Press.



The University of Hawai'i Department of Obstetrics, Gynecology & Women's Health would like to extend deepest thanks to all who made this 2022 Research Day possible.

Research Day Committee:

Resident Research Director: Shandhini Raidoo, MD, MPH

Mark Hiraoka, MD, MS
Bliss Kaneshiro, MD, MPH
Reni Soon, MD, MPH
Dena Towner, MD
Steven Ward, PhD
Mattias Atterbom
Darlene Hubbard
Ginny Kamikawa
Krysten Kawamata
Lisa Kellett
Robert Landgraf

And all the mentors, assistants, and everyone else, who made these projects possible



### May 26, 2022

### Welina mai!

Welcome to the 27th Annual University of Hawai'i John A. Burns School of Medicine Department of Obstetrics, Gynecology, and Women's Health Research Day Symposium. It is wonderful to be able to gather again in this hybrid format, and we are appreciative of the continued support of all who have taken time out of their busy schedules to participate in our research day event. Despite the limitations that come with change, we are grateful that our ever-growing 'ohana continues to steadfastly come together to discover, learn, and inspire each other in our common goal of advancing women's health in Hawai'i and beyond. Thank you for your individual efforts in pushing forward for focused and well-designed research.

We extend a special thanks to the entire Research Day Symposium Planning committee and to all of our research mentors, without whom this day would not be possible. We hope that you will find this research symposium informative and inspiring. Please share your thoughts about our department's research day with us and any suggestions for next year's program.



Ivica Zalud, MD, PhD
Professor and Chair
Kosasa Endowed Chair
Department of Obstetrics, Gynecology &
Women's Health
John A. Burns School of Medicine
University of Hawaii



Shandhini Raidoo, MD, MPH
Assistant Professor
Director of Resident Research
Department of Obstetrics, Gynecology &
Women's Health
John A. Burns School of Medicine
University of Hawaii

### **Dedication**

This Research Day is dedicated to the many members of our UH OBGYN 'ohana who, despite the challenges of the last few years, continue to push the envelope in advancing research in obstetrics, gynecology, and women's health. Every individual physician, educator, and community advocate is an essential and irreplaceable contributor in this monumental effort. For your dedication, resilience, and continued excellence, we honor you today.

"Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives. It is the fuel that allows common people to attain uncommon results."

~Andrew Carnegie

### 2022 Judging Panel

**Guest Speaker & Judge** 

### Lawrence D. Platt, MD

Clinical Professor of Obstetrics and Gynecology

David Geffen School of Medicine at UCLA



Lawrence D. Platt, MD, is an internationally renowned board-certified obstetrician-gynecologist and maternal-fetal medicine specialist based in Los Angeles, California. He has served as Chairman of the Department of Obstetrics and Gynecology at Cedars-Sinai Medical Center in Los Angeles and Vice Chairman of UCLA School of Medicine (currently named David Geffen School of Medicine at UCLA) and is currently a Clinical Professor in the Department of Obstetrics and Gynecology. Following his time at Cedars-Sinai, he opened a specialized prenatal diagnostic center in Los Angeles where he remains today. Throughout his career, he has recognized the importance of continuous learning and teaching residents and fellows, many of whom have gone on to have successful careers of their own including becoming Department Chairs across the United Sates. He has created an opportunity and

setting for residents and fellows from Cedars-Sinai Medical Center to be able to rotate through his Center, which is unique for a non-academic and non-hospital-owned facility. Dr. Platt is a prolific author with more than 350 peer-reviewed publications, 70 chapters in medical textbooks and numerous textbooks to his credit. As an internationally renowned and nationally soughtafter speaker, Dr. Platt has presented lectures on the continual advances that are being made in obstetrics and gynecology ultrasound and prenatal diagnosis. He continues to be involved as an investigator in many international and nationally-based research projects, including numerous NIH and WHO-funded grants. He has dedicated his life to giving back to the community whether it is serving on numerous national and international committees and boards of major professional societies, industry organizations, educational, non-profit or religious organizations. He has received a plethora of honors and accolades throughout his career, including being the fourth American to receive the prestigious Ian Donald Gold Medal Award from the International Society of Ultrasound in Obstetrics and Gynecology. This is the highest honor presented to an individual who has made a significant scientific contribution to the advancement of diagnostic ultrasound in Obstetrics and Gynecology and who has changed the way ultrasound is practiced through research or innovation. He continues to be recognized as one of the Best Doctors in Los Angeles and Best Doctors in America. After 50 years, he has been blessed by God to continue to love what he does by providing care to others and is forever thankful to his late parents, his siblings, his wife, their three children and eight beautiful grandchildren who have been incredibly supportive during his incredible journey.

### **Judge**

### Mary Tschann, PhD, MPH

Complex Family Planning Scientist

The Queen's Medical Center Department of Obstetrics, Gynecology, and Women's Health



Mary Tschann is a clinical researcher who focuses on issues related to family planning, reproductive health, and public health. Mary started her work with the Department of Obstetrics, Gynecology and Women's Health in 2011 as a Clinical Operations Manager and the Division of Family Planning administrator. Inspired by the research efforts of her colleagues, Mary completed her doctorate in biomedical science at JABSOM and then worked with the department as a faculty researcher. She returned to the continent and worked for several years with the Society of Family Planning as Senior Clinical Affairs Manager, leading clinical resource development and a national research network for family planning providers. She returned to the Department in 2022 and is thrilled to be back.

### Judge

### December Maxwell, PhD, MSW

Assistant Professor, Department of Social Work
Thompson School of Social Work & Public Health at the University of Hawaii at Manoa



December Maxwell is an assistant professor at the University of Hawai'i at Mānoa Thompson School of Social Work & Public Health. She received her Ph. D. at the University of Texas at Arlington, MSW at the University of Arkansas, and her B.A. in psychology from Southern New Hampshire University. While at the University of Texas at Arlington, she worked closely with the National Institute of Transportation and Communities (NITC) to better understand the intersections of transportation access and women's bodily autonomy and received funding from NITC to investigate the complexities of land allocation, forced relocation, transportation access and perinatal mental health among American Indians/Native Americans. Dr. Maxwell's qualitative research uses community-developed and derived decolonizing approaches to better understand the complex interactions of historic and generational trauma, indigenous motherhood, and perinatal mental health disparities among American Indian/Native American

mothers. Her recent projects include a study of the impacts of COVID-19 on the transition of becoming a mother and amplification of maternal mental health disparities, an evaluation of mental health services in rural Arkansas and Hawai'i and a study evaluating the efficacy of lullaby use on increasing bonding and reducing maternal stress among Indigenous Pacific mothers.



## University of Hawai'i Department of Obstetrics, Gynecology & Women's Health Research Day Schedule

Thursday, May 26, 2021 Oahu Country Club *and via Zoom* 

8:00 am Shandhini Raidoo, MD, MPH – Welcome, Housekeeping, Honoring of Dedicatee

8:15am Ivica Zalud, MD, PhD, Professor and Kosasa Endowed Chair – Remarks 8:25 am Shandhini Raidoo, MD, MPH – Resident Research Director – Welcome &

Introduction of Judges

8:45 am <u>UH Third Year Resident Presentations</u> - Six 10-min talks, 5-min Q/A to follow

[8:45 am Introduction by Paris Stowers, MD, MSCTR]:

8:50 am Kelsi Chan, MD, MS

"Family Planning In-Person vs. Telemedicine Training Study (FITTS)"

[9:05 am Introduction by Shandhini Raidoo, MD, MPH]:

9:10 am Michelle Ichikawa, MD

"Contraceptive Initiation Following Medication Abortion: Telehealth vs. In-Office Visit"

[9:25 am Introduction by Holly Olson, MD, MACM]:

9:30 am Katrina Chin, MD

"A randomized comparison of tension versus no tension with Foley transcervical catheters for pre-induction cervical ripening"

[9:45 am Introduction by Stacy Tsai, MD, MPH, MCR]

9:50 am Lauren Ing, MD

"Decreasing Postpartum Depression in Hawaii using the ROSE Program"

[10:05 am Introduction by Melissa Natavio, MD, MPH]:

10:10 am Lucia Xiong, MD

"Knowledge, attitudes, and experiences of pre-pregnancy counseling in women with mental health disorders"

[10:25 am Introduction by Dena Towner, MD]:

10:30 am Elizabeth Mercer, MD

"Placenta previa: is follow-up always needed?"

10:45 am Ten-minute break

[10:55 am Introduction by Shandhini Raidoo, MD, MPH]:

11:00 am Tripler Resident Presentation (10 min presentation, 5 min Q/A)

Lindsay Erol, MD

" Racially Disparate Outcomes among Advanced Maternal Age Inductions of Labor"

[11:15 am Introduction by Shandhini Raidoo, MD, MPH]:

11:20 am Tripler Resident Presentation (10 min presentation, 5 min Q/A)

**Eric Schmitt, MD** 

" Analyzing Trends in Obstetrics and Gynecology Fellowship Training Over the Last Decade using the Normalized Competitive Index"

[11:35 am Introduction by Reni Soon, MD]:

11:40 am CFP Fellow Abstract Presentation (15 min presentation, 5 min Q/A):

Marit Pearlman Shapiro, MD, MPH

" 'No test' medication abortion: a systematic review"

[12:00 pm Introduction by Dena Towner, MD]:

12:05 pm MFM Fellow Abstract Presentation (15 min presentation):

Melanie Maykin, MD

"Furosemide to Lower Antenatal Severe Hypertension (FLASH): A Randomized Placebo-Controlled Trial"

12:20 pm Lunch

1:00 pm Awards



### Kelsi Chan, MD MS

*Medical School:* Oregon Health & Science University School of Medicine, Portland, OR

#### Medical School Honors/Awards:

- Second Year Resident Award
- 2020-2021 NASPAG Resident Award
- First Year Resident Teaching Award
- Golden Humanism Honor Society
- Alpha Omega Alpha Honor Medical Society
- OHSU Flame Award in Leadership in Student Service Runner-up (2017)
- OHSU Diversity and Inclusion Student Leadership Nominee (2017)
- Annual Award of Excellence (2016, 2017, 2018)
- Metropolitan Portland Medical Society Outstanding Student Finalist (2016)

*Graduate Education:* Tufts University Public Health & Professional Degree Programs, Boston, MA, M.B.S., Biomedical Sciences

*Undergraduate Education:* Harvard University, Cambridge, MA, B.S., Major Human Evolutionary Biology, Minor East Asian Studies

#### Publications:

- Hoffman BD, Gilbert TA, Chan K, Ennis B, Gallardo A, Carlson KF. Getting Babies Safely Home: A Retrospective Chart Review of Car Safety Seat Tolerance Screening Outcomes. Academic Pediatrics. 2021 Nov-Dec, 21(8): 1355-1362.
- Chan K. "Island at Heart." Medical Society of Metropolitan Portland's The Scribe. 2017
   Feb Issue: 5.

- Chan K, Saito-Tom L, Lozanoff S, Pagat S. Adding Anatomy Education to OB/GYN Clerkship Transition to Compensate for COVID-19 Lockdown Deficiencies. Health Professions Education Conference Annual Meeting, 2022, Honolulu, HI [oral presentation].
- Chan K, Saito-Tom L, Lozanoff S, Pagat S. Ingredient Substitution in the Recipe for Success: Adding Anatomy Education to OB/GYN Clerkship Transition to Compensate for COVID-19 Lockdown Deficiencies. CREOG & AGPO Annual Meeting, 2022, Orlando, FL [oral presentation].
- Raidoo S, Stowers P, Chan K. Virtual Voices: Incorporating Trainees into Telehealth Encounters with Teens. North American Society for Pediatric and Adolescent Gynecology Annual Clinical Research Meeting, 2022, Chicago, IL [roundtable luncheon].
- Hoffman B, Gilbert T, Chan K, Ennis B, Carlson K. To Test or Not to Test: A Retrospective Review of Infant Car Seat Tolerance Screening Outcomes at a Single Institution. American Academy of Pediatrics National Conference, 2018, Orlando, FL [oral presentation].
- Hoffman B, Gilbert T, Chan K, Ennis B, Carlson K. To Test or Not to Test: A Retrospective Review of Infant Car Seat Tolerance Screening. Annual Injury Free Coalition for Kids Meeting, 2018, Ft. Lauderdale, FL [poster presentation].

•	Marr M, <b>Chan K</b> , Sheridan K. Structural Competency Curriculum: Introducing students to psychological trauma and structural violence. American Medical Association Accelerating Change in Medical Education Student-Led Conference on Leadership, 2017, Ann Arbor, MI [workshop and oral presentation].

### Title: Family Planning In-Person vs. Telemedicine Training Study (FITTS)

Authors: Kelsi Chan, MD, MS; Paris Stowers MD, MSCTR

**Objective:** This study aims to compare how resident physicians perceived quality of educational feedback during telemedicine versus in-person encounters during their family planning rotation.

**Design:** Prospective observational study

**Methods:** University of Hawaii obstetrics and gynecology (OBGYN) first-year residents who were starting their seven- or eight-week family planning rotation were approached to participate in this study. Written consent was obtained from all participants, who then completed a 3-item demographic survey. After every in-person and telemedicine clinic session, participating residents were contacted via text message with a link to a 14-item web-based survey. Residents were asked to rate their perceived quality of feedback, satisfaction with feedback, and resident perceived autonomy during each session using a 5- point Likert scale. The data was analyzed in aggregate to preserve anonymity of participants. Statistical analysis was performed using descriptive statistics and ordinal regression modeling.

Results: From January 2021 to February 2022, 9 residents rotated through their family planning rotation and were approached for the study. All 9 residents agreed to participate. A total of 132 survey reminders were sent via text message after each clinic visit. During this 14 month period, 114 responses were received (response rate: overall=86%, telemedicine=70.7%, in-person=93.4%). There was a significant increase in perceived quality of feedback for contraception counseling during telemedicine compared to in-person clinical sessions (telemedicine: 57.7% vs in-person: 39.8% very high quality feedback; p=0.041). There was no difference in perceived overall quality of feedback (telemedicine: 57.1% vs in-person: 48.2% very high quality feedback; p=0.28) or quality of feedback on medical abortion counseling (telemedicine: 57.1% vs in-person: 46.1% very high quality feedback; p=0.10). Satisfaction with overall feedback (telemedicine: 57.1% vs in-person: 52.9% very satisfied; p=0.478), contraceptive counseling feedback (telemedicine: 57.7% vs in-person: 42.2% very satisfied; p=0.13), and abortion counseling feedback (telemedicine: 60.7% vs in-person: 51.3% very satisfied; p=0.19) did not differ between telemedicine and in-person clinic sessions. Additionally, there was no difference in perception of having the perfect amount of autonomy (telemedicine: 96.4% vs in-person: 89.3%; p=0.716)

**Conclusion:** This study demonstrated that residents' perception of educational feedback during telemedicine clinic is at least similar for most measures and superior for contraception counseling when compared to in-person clinic. Although not statistically significant, there was an overall trend towards favoring the feedback given during telemedicine sessions for all measures. These findings confirm the value of family planning telemedicine training for OBGYN residents and support future initiatives to develop remote training opportunities for learners who may not have access to family planning training at other institutions.

Support: None

**Acknowledgements:** Dr. Melissa Natavio, Dr. Holly, Olson, Hawaii Residency Programs OBGYN resident classes '24 and '25.



### Katrina Chin, MD

*Medical School:* Saint Louis University School of Medicine, St. Louis, MO

*Undergraduate Education:* The University of Western Ontario, London, Ontario, Canada, B. Med. Sci., Honors Specialization in Biochemistry

### Research Experience:

- Student Researcher, OBGYN Department St. Louis University, St. Louis, MO. Participated in study design, data collection and analysis.
- Student Researcher, Anatomy & Cell Biology, Western University, London, ON, Canada.
   Designed and performed experiments to study the localization and function of autosomal-dominant mutations in Connexin26 that have been implicated in rare skin diseases.

### Publications:

Press ER, Shaq Q, Kelly JJ, Chin K, Alaga A, & Laird DW. Induction of cell death and gain-of-function properties of connexin26 mutants predict severity of skin disorders and hearing loss. Journal of Biological Chemistry. 2017 Apr; 292(23): 9721-9732.



Title: A randomized comparison of tension versus no tension with Foley transcervical catheters for pre-induction cervical ripening

Authors: Katrina Chin, MD, Caroline Lau, MD, Kimberly Nagamine, MD, Holly Olson, MD MACM

**Objective:** The purpose of this study is to compare the application of tension versus no tension in Foley transcervical catheters for pre-induction cervical ripening.

Design: Randomized controlled trial

**Methods:** This is a single institution trial of nulliparous patients undergoing labor induction with transcervical Foley catheter and misoprostol for cervical ripening. Participants were included if they were 18 years of age or older with a live singleton pregnancy in cephalic presentation, had a Bishop score of 6 or less, fewer than 13 contractions per hour, and were undergoing labor induction. Enrollment began September 2020 and is ongoing. Participants are randomized to a transcervical Foley catheter with or without tension applied. The amount of tension placed on the Foley catheter is quantified using a rubber band stretched to a predetermined length. Patients also receive 25 micrograms of misoprostol vaginally at the time of Foley catheter insertion. Upon expulsion of the Foley catheter, subsequent labor management is at the discretion of the primary provider. The primary outcome is induction to delivery time. Secondary outcomes include indications for operative delivery, rates of vaginal delivery within 24 hours, chorioamnionitis, instrumented vaginal delivery, cesarean delivery rate, postpartum hemorrhage, and 5 minute neonatal APGAR score <7.

**Results:** Seventy-three patients have been enrolled and randomized, with 9 post-randomization exclusions. The mean age of patients was 29.1 years and the mean gestational age at time of induction was 38 weeks 5 days. The most common indications for induction were pregnancy induced hypertension (32.8%), elective (28.1%), and gestational diabetes (12.5%). The mean time from Foley catheter insertion to expulsion was 4.4 hours (±3.2 hours). The mean time to delivery was 25.6 hours (± 13.0 hours). After Foley catheter expulsion, 53.1% of participants received both oxytocin and amniotomy, 37.5% received oxytocin alone, 3.1% received amniotomy alone, and 6.3% received no labor augmentation. The rates of vaginal, operative, and cesarean deliveries were 56.3%, 1.6% and 42.2%, respectively. The rate of postpartum hemorrhage was 12.5%, with a mean estimated blood loss of 367 mL for vaginal deliveries and 831 mL for cesarean deliveries. Delivery within 24 hours occurred in 78% of participants who had a vaginal delivery. Neonatal APGAR score <7 at 5 minutes occurred in 3.1% of patients.

**Conclusions:** There was a wide variation in the length of time between catheter expulsion and initiation of oxytocin and/or amniotomy, and a large majority of patients were augmented with oxytocin. The cesarean delivery rate in this small cohort is higher than expected compared to the national cesarean delivery rate. Further analysis following the completion of the trial may elucidate factors that contributed to this.

Support: None

**Acknowledgements:** Thank you to all the residents who have helped to randomize patients.



### Michelle Ichikawa, MD

*Medical School:* Oregon Health & Science University School of Medicine, Portland, OR

*Undergraduate Education:* Reed College, Portland, OR, B.A., Biology

### Research Experience:

■ Researcher, JABSOM Dept of Ob/Gyn, Honolulu, HI. Diagnosis and Management of Tubal Stump Ectopic Pregnancy Using Single-Port Laparoscopic Technique. Video and abstract submission demonstrating first known use of a single site laparoscopic technique

to treat a tubal stump ectopic pregnancy.

- Student Researcher, OHSU Dept of Ob/Gyn, Portland, OR. Vitamin D supplementation in pregnancy: A cost-effectiveness analysis.
- Presenting Author, Oregon Health and Science University, Portland, OR. Abstract submission for 2019 Society of Maternal Fetal Medicine annual meeting entitled Vitamin D supplementation in pregnancy: A cost-effectiveness analysis.
- Medical Student Curriculum Developer, Oregon Health and Science University, Portland, OR. Led a project to redesign the way genitourinary exams are taught to medical students.
- Medical Student Researcher, Oregon Health and Science University, Portland, OR.
   Identified and prepared samples and wrote the final paper for a resident research project titled Neuroendocrine Differentiation in Basal Cell Carcinoma.
- Volunteer Researcher, OHSU Women's Health Research Unit, Portland, OR. Studied biomarkers to predict preterm birth.
- Student Researcher, Reed College, Portland, OR. Senior Thesis: Maternal Mouthbrooding and Metabolism Regulation in Astatotilapia burtoni. Studied effect of feeding condition on metabolism and gene expression in African cichlid fish.

- Ichikawa M. Neuroendocrine Differentiation in Basal Cell Carcinoma. OHSU SOM Research Day, 2019, Portland, OR [poster presentation].
- Kuo K, Ichikawa M, Hersch AR, Senz K, & Caughey, AB. Chemotherapy and optimal timing of delivery for women with HER2+ positive breast cancer. American College of Obstetricians and Gynecologists Annual Meeting, 2018, Austin, TX [poster presentation].

### Title: Contraceptive Initiation Following Medication Abortion: Telehealth vs. In-Office Visit

Authors: Michelle Ichikawa, MD and Shandhini Raidoo, MD

**Objective:** To elucidate trends in contraceptive choice and implementation following telehealth medication abortion compared to in-office medication abortion

**Design:** Retrospective cohort study

**Methods:** Data from all medication abortions performed by the Women's Options Center between 2/2019-1/2022 were included. Subjects were compared based on whether their initial visit was performed via telehealth or in-person. We collected data on patient demographics, gestational age, pregnancy factors, type of contraception desired, and whether the provider conductive contraceptive counseling during the visit. Our primary outcome compared rates contraception initiation between telehealth and in-person visits, and the secondary outcomes were type of contraception initiated and timing of initiation between the two visit types. Patient characteristics were summarized using descriptive statistics and the association between abortion visit type with contraceptive initiation and contraceptive method tests was examined using Chi-square and T-tests. Statistical analyses were performed using SPSS version 25 software.

**Results:** A total of 681 medication abortions were included in the analysis, 341 in-person and 340 telehealth. There was no difference in age, race, gestational age between the groups. Statistically significant demographic differences between the groups included parity, number of prior medication abortions, county of residence, and visit payment type. Compared to people receiving abortion care in-person, telehealth patients were lower parity, more likely to have had a prior medication abortion, live a county that doesn't provide in-person abortion services, and less likely to use insurance to pay for their visit. Contraceptive counseling was performed at the time of consult at a similarly high rate for both groups (92% vs 87%, p= 0.093). There were no statistically significant differences in type of contraceptive desired. Follow-up rates were similarly high for both groups (74.8% in-person vs. 84.7% telehealth, p= 0.02). Of the patients who followed up, telehealth patients were less likely to have initiated a form of contraception at the time of follow-up (36.5% vs. 54.9%, p = <0.01). Despite expressing similar preferences for LARC as patients seen for in-office visits (22.5% telehealth vs. 26.7% in-person), patients who conducted their visits via telehealth were less likely to initiate a LARC method following medication abortion (4.6% telehealth vs. 18.2% in-person).

**Conclusions:** Regardless of type of abortion service received, medication abortion patients had similarly high rates of contraceptive counseling during their visit. However, a smaller proportion of those who received abortion services via telehealth initiated contraception after their abortion, and were less likely to initiate a LARC method. This suggests that as telehealth medication abortion services are expanded and improved, attention should be given to expanding contraceptive access and facilitation to meet the population health needs of the people.

Support: None

**Acknowledgements:** Taylor Ronquillo, Jasmine Tyson, UH Family Planning Research Center of Hawaii Staff



### Lauren Ing, MD

*Medical School:* John A. Burns School of Medicine at the University of Hawaii, Honolulu, HI

Medical School Honors/Awards:

 Kaiser Permanente Northern California Medical Student Scholarship (2018)

*Undergraduate Education:* University of San Francisco, San Francisco, CA, B.S., Biology

Research Experience:

- Volunteer, University of Hawaii, Honolulu, HI. Data collection on a study investigating the availability of ulipristal acetate in small cities around the US.
- Research Assistant, Hawaii Pacific Health, Honolulu, HI. Assisted in longitudinal study designed to aid families of overweight children learn about healthy eating habits, exercise, and ways to make these changes sustainable.
- Junior Specialist, University of California San Francisco, San Francisco, CA. Researched the effect of Notch mutations in the carcinogenesis of cutaneous squamous cell carcinoma.
- Student researcher, Hawaii Pacific Health, Honolulu, HI. Investigated research project entitled "Hanuola: The Neonatal/Pediatric ECMO Program of Hawai'i. The First Five Years' Experience."
- Research Volunteer, University of California San Francisco, San Francisco, CA. Performed research in examining the host-pathogen interactions of the bacteria *Listeria monocytogenes* at the maternal-fetal interface in bacterial, mouse, guinea pig, and human placental models.

### Publications:

• Mansh M, Ing L, Dimon M, Celli A, Mauro TM, & Arron ST. Voriconazole exposure regulates distinct cell cycle and terminal differentiation pathways in primary human keratinocytes. British Journal of Dermatology. 2016 Jul; 176(3): 816-820.

#### Presentations:

 Brooks L, Moslehi H, Ing LA, & Arron S. NOTCHI inhibition disrupts formation of stratified epithelium in organotypic cell culture models of the skin. Society for Investigative Dermatology, 2015, Atlanta, GA [poster presentation].

### Title: Decreasing Postpartum Depression in Hawaii using the ROSE Program

Authors: Lauren Ing, MD, Pai-Jong Stacy Tsai, MD, MPH, MCR

**Objective:** This study investigates the effectiveness of the ROSE (Reach Out, Stand strong, Essentials for new mothers) program on decreasing the incidence of postpartum depression among at-risk mothers of Hawaii. This program uses interpersonal therapy-oriented group sessions during the antepartum and postpartum period to manage the transition to motherhood, help with communication skills to manage relationships, and acts as a resource for mothers.

**Design:** Prospective cohort study of those who participated in the ROSE program classes at a community resource program compared to those who did not.

Methods: Women in Healthy Mothers Health Babies' community programs were offered the ROSE classes starting in January 2021 and those who agreed to participate were included in the analysis. The control group was pulled from women who participated in HMHB's programs starting January 2021 but did not participate in the ROSE sessions. Both groups received the current standard of care for antenatal and postpartum medical care. Edinburgh Postnatal Depression Scores (EDPS) were collected in the antepartum and postpartum period. The primary outcome of the study is the incidence of significant EPDS scores (score ≥ 10) collected in the antepartum and postpartum period. The secondary outcome is the average EPDS score of both groups. We hypothesize that women who participate in the ROSE program will have a lower incidence of significant EPDS scores compared to women who did not participate in the ROSE program. EPDS scores of both groups were compared using Fisher's exact test. Descriptive data on age, race, and insurance status were also collected. Logistic regression was used to determine confounders between groups.

**Results:** There were 93 patients in the control group and 24 patients in the ROSE program group. Twenty-two participants in the control group had EPDS scores ≥ 10 (24%) compared to 3 (12.5%) in the ROSE study group with a p-value of 0.271. The overall mean EPDS score in the control group was  $5.68 \pm 6.09$  and the mean EPDS score in the ROSE study group was  $4.08 \pm 4.16$  (p=0.232). The mean EPDS score collected in the antepartum period is  $5.67 \pm 5.85$  in the control group and  $5.10 \pm 4.12$  in the ROSE study group (p=0.771). The mean EPDS score collected in the postpartum period is  $5.06 \pm 5.97$  in the control group and  $3.36 \pm 4.18$  in the ROSE study group (p=0.3385). The average age in the control group was 29.5 years and the average age in the ROSE study group was 32.6 years. In the control group, the most common racial groups were Pacific Islander (73%) and Asian (15%) and in the ROSE study group, the most common racial groups were white (38%), Asian (25%) and Pacific Islander (20%). The number of patients on public insurance were 71 (76%) in the control group and 12 (50%) of the ROSE study group, p-value= 0.0213.

**Conclusion:** This is the first study in Hawaii examining the use of an interpersonal therapy-oriented program to prevent postpartum depression. The study showed a trend toward lower incidence of significant EDPS scores in women who participated in the ROSE program. Although the difference was not statistically significant, this study illustrates the use of an innovative program aiming to address the growing maternal mental health crisis.

Support: None

Acknowledgements: Vivian Choy and Sunny Chen from Healthy Mothers Healthy Babies

Coalition of Hawaii



### Elizabeth Mercer, MD

*Medical School:* Indiana University School of Medicine, Indianapolis, IN

Medical School Honors/Awards:

• Tutoring Team of the Year Award, School on Wheels (2018)

*Graduate Education:* Purdue University, West Lafayette, IN, M.S., Biomedical Engineering

*Undergraduate Education:* Purdue University, West Lafayette, IN, B.S., Biomedical Engineering

### Research Experience:

- MS4 Breast Disease Elective, Women and Infants Hospital, Providence, RI. Gathered and analyzed data for newly diagnosed breast cancer patients that had stat genetic testing and concluding that panel genetic testing upfront was warranted in order to decrease genetic counselor workload and for insurance purposes.
- Medical Student Summer Fellow, Memorial Sloan Kettering Cancer Center, New York, NY. Conducted in vivo and in vitro studies to evaluate mesoscale nanoparticle drug delivery, synthesized free radical scavenger drug-loaded mesoscale nanoparticles.
- Biomedical Engineering Masters Student, Purdue University, West Lafayette, IN.
   Developed multi-layered synthesis procedure for polymer drug-loaded microparticles based on novel hydrogel template developed at Purdue University by Dr. Kinam Park.
- Biomedical Engineering Undergraduate Student, Purdue University, West Lafayette, IN.
  Designed, and drafted and reviewed patents for, SafePace, a patented medical device
  that provides mechanical and electrical feedback to a surgeon during a pacemaker
  implantation surgery about the stability of the pacemaker lead in the heart.

#### Publications:

- Williams RH, Shah J, Mercer E, Tian HS, Thompson V, Cheung JM, Dorso M, Kubala JM, Gudas LJ, de Stanchina E, Heller DA. Kidney-Targeted Redox Scavenger Therapy Prevents Cisplatin-Induced Acute Kidney Injury. Front Parmacol. 2022 Jan 3; 12:790913.
- Williams RH, Shah J, Mercer E, Tian HS, Cheung JM, Dorso M, Jaimes EA, Heller DA. Edaravone-Loaded Mesoscale Nanoparticles Treat Cisplatin-Induced Acute Kidney Injury. BioRxiv. 2020 Jan 25; https://doi.org/10/1101/2020.01.24.919134.
- Mercer E, Williams R, Jaimes E, & Heller D. Drug-Loaded Mesoscale Nanoparticle Therapy for Cisplatin Induced AKI. Insight Medical Student Research Journal. 2018 Jul 24; 1(1): 40.
- Harvey J, Baker H, Mercer E, Budhatkoti-Uprety J, & Heller D. Control of Carbon Nanotube Solvatocrhomatic Response to Chemotherapeutic Agents. ACS Applied Materials & Interfaces. 2017 Oct; 9 (43): 37947-37953.
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- Mercer E, Williams R, Jaimes E, & Heller D. Drug-Loaded Mesoscale Nanoparticle Therapy for Cisplatin Induced AKI. Memorial Sloan Kettering Cancer Center Summer Fellow Poster Presentation, 2016, New York, NY [poster presentation].
- Mercer E & Zhang J. Pacemaker Lead Placement System. American Society for Artificial Internal Organs (ASAIO) 59<sup>th</sup> Annual Conference, 2013, Chicago IL [oral presentation].
- Mercer E & Zhang J. SafePace: Pacemaker Lead Placement Feedback System. 6th Annual Northeast Indiana Technology Showcase, 2013, Fort Wayne, IN [oral presentation].
- Mercer E, Zhang J, Pellettiere J & Lee J. SafePace: Pacemaker Lead Placement Feedback System. Fall 2012 Thomas and Sandra Malott Innovation Competition, 2012, West Lafayette, IN [oral presentation].

### Title: Placenta previa: is follow-up always needed?

Authors: Elizabeth Mercer, MD, Rylie Wada, MS3, Courtney Ip, MS3, Dena Towner, MD

**Design:** Retrospective cohort study

**Objective:** Our objective was to determine if there is a need for follow-up ultrasounds to evaluate placenta previa or low lying placentas based on the distance from the placental edge to the internal os at the time of the second trimester ultrasound.

**Methods:** The study population was identified from the singleton obstetrical ultrasounds performed at the Fetal Diagnostic Center from January 2013 to December 2018. Studies with a diagnosis code for placenta previa or low lying placenta and gestational age of 18 to 24 weeks were identified. The distance from the placenta edge to the internal os was extracted from the report and/or images. Subsequent third trimester ultrasounds were analyzed for resolution. Of the 914 patients who met the search criteria, 716 met the study criteria and were analyzed. 198 patients were excluded due to not having a low lying or placenta previa after transvaginal ultrasound, no follow-up ultrasound, multiple gestations, placenta accreta, or vasa previa. The data was analyzed based on location of placenta: posterior and anterior. The percentage of resolution and the likelihood ratios based on the distance the placenta was from the internal os during the second trimester ultrasound were calculated.

**Results:** The rate of placenta previa and low lying placenta resolution at the last performed ultrasound was 85.3% (611/716). The average gestational age at the last ultrasound for all these patients was 28 weeks 4 days gestation. Seventy-four percent (530/716) of these patients had posterior placentas. Of the posterior placentas, 96.2% (172/179) of the low lying placentas that were 10mm or more from the internal os resolved. Of the anterior placentas, 100% (68) of the low lying placentas that were 10mm or more from the internal os resolved.

**Conclusions:** Given newer recommendations that a trial of labor is appropriate for placentas 10mm or more from the os and the high rate of resolution for both anterior and posterior placentas at this distance away, it is reasonable to consider not repeating third trimester ultrasounds for patients with low lying placentas that are 10mm or more away from the internal os. In this study population, these recommendations would have reduced the need for 287 follow-up ultrasounds.

Support: None

**Acknowledgements:** 



### Lucia Xiong, MD

*Medical School:* University of New Mexico School of Medicine, Albuquerque, New Mexico

Medical School Honors/Awards:

- Beyond Flexner Conference Poster Competition (2018): First Place Winner
- UNMSOM Hats Off Award in Humanism, Activism, Talents, and Service for Creating Social Justice Initiative (2018)
- Scholarship through ACOG to attend 2018 Annual Clinical and Scientific Meeting in Austin, TX (2018)
- Family Medicine Interest Group Network Program of Excellence in Collaboration Award (2016)

Graduate Education: Santa Fe Community College Teacher's Academy, Santa Fe, NM

*Undergraduate Education:* University of Pennsylvania, Philadelphia, PA, B.A., International Relations and Global Health Concentration, summa cum laude

### Research Experience:

- Manuscript Contributor and Researcher, UNMSOM Center for Reproductive Health, Albuquerque, NM. Medication Abortion Follow-up Before and After Introducing a Home Follow-Up Option. Pending journal decision. Completed chart review of historical cohort and developed database for analysis.
- Student Researcher, UNMSOM Dept of OB/GYN Maternal Fetal Medicine, Albuquerque, NM. Developed and reviewed quality improvement on Post-C-Section Opioid Prescription Practices.
- Primary Researcher, UNMSOM Center for Reproductive Health, Albuquerque, NM. Developed data collection tool and completed retrospective chart review for medical and surgical abortion follow-up evaluation to determine cost effectiveness of phone prompting.
- Intern, Central Himalayan Rural Action Group (Chirag), Nainital, India. Conducted surveys to assess community perceptions of healthcare quality, barriers to access, and impact of World Health Organization donations.
- Lab Technician, University of Pennsylvania, Philadelphia, PA. Managed mouse lines and tissue cultures, conducted Western blots, real-time polymerase chain reaction, and gene transfection experiments.

- Presenter, University of Hawaii Obstetrics and Gynecology Residency Program, Honolulu, HI.
   ACOG Advocacy Series Lecture: Antiracism, March 9, 2022
- Guest Lecturer for First Year Medical Student Course, John A. Burns School of Medicine, Honolulu, HI. Introduction to Anti-Racism, Sept 4, 2020 and Sept 8, 2021
- Pope H, Dexter J, Rios L, Xiong L, & Rohan-Minjares F. Racism in the Clinical Context: An Active Learning Intervention. Third Annual Social Medicine Consortium: Sharing Strategies for Health Equity, 2018, Albuquerque, NM [poster presentation].
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### Title: Knowledge, attitudes, and experiences of pre-pregnancy counseling in women with mental health disorders

**Authors:** Lucia Y. Xiong, MD; Shandhini Raidoo, MD, MPH; Bliss Kaneshiro, MD, MPH; Melissa Natavio, MD, MPH

**Objective:** The purpose of our study was to describe what women with mental health disorders know about the safety of medications or substance use in pregnancy. Our secondary objective was to determine whether women are receiving prepregnancy counseling and describe their experience with those discussions.

**Design:** This was a cross-sectional study using a web-based survey of predominantly closed-ended questions.

**Methods:** We sought respondents who are assigned female sex at birth and with reproductive potential, 18 to 45 years of age who self-reported a mental health disorder diagnosis or used substances and resided in Hawaii. Recruitment flyers were displayed in women's healthcare clinics and psychiatric clinics and shared on social media through peer networks. Data was collected on REDCap. Descriptive statistics were calculated using Microsoft Excel.

**Results:** Preliminary data included 59 respondents with an average age of 30 years. The most commonly reported mental health disorders included: anxiety (34/47, 72.3%); depression (33/47, 70.2%); and post-traumatic stress disorder (12/47, 25.5%).

Twenty-seven (45.8%) of 52 respondents took at least one prescription medication for mental health within six months prior to survey completion. Respondents reported that they did not know whether the medication they took is safe in pregnancy for 29 (42.6%) of 68 medications.

Thirteen (19.1%) medications taken were labeled by the U.S. Food and Drug Administration as Pregnancy Risk Category D (medications that have demonstrated fetal risk, but benefits may outweigh these risks). One participant (8.3%) indicated that the Category D medication is safe and four (33.3%) did not know whether the medication is safe to use during pregnancy.

Forty-one (73.2%) out of 56 respondents reported they used a substance with addictive potential, such as alcohol, tobacco, betel nut, marijuana, and other drugs, within six months prior to survey completion. Four (6.1%) out of 65 respondents did not know if the substance they used was safe in pregnancy and seven (10.7%) respondents reported the substance used as safe or likely safe in pregnancy despite evidence of adverse fetal effects.

Twenty-three (44.2%) out of 52 respondents said they previously discussed pregnancy planning with a women's healthcare provider and 9 (17.3%) with a psychiatrist. Sixteen (31.3%) out of 51 respondents discussed with their provider how mental health can be affected by pregnancy. Fifteen (29.4%) out of 51 respondents said they had a plan if their mental health symptoms were to worsen during pregnancy.

**Conclusion:** Nearly half of women in our sample stated they did not know whether a recently consumed medication was safe to take during pregnancy. Furthermore, less than half of respondents reported experiencing prepregnancy counseling with a women's healthcare provider. Less than a third discussed with their provider how mental health affects pregnancy and treatment plans if they become pregnant. This suggests that more providers need to initiate the conversation around medication use for mental health and its effects on pregnancy. For reproductive-aged women with mental health disorders or substance use, more thorough prepregnancy counseling can help make a positive impact on mental health during pregnancy.

Support: Financial support from the University of Hawaii Department of OB/Gyn Sharma Fund

**Acknowledgements:** Dr. Alexandra Takayesu, Dr. Deb Goebert, attendings, fellows, and residents who helped to review and take my practice survey and help post flyers



### Lindsay Erol, MD

Obstetrics and Gynecology Resident Physician, Tripler Army Medical Center, Honolulu HI

Ob-Gyn Residency: Tripler Army Medical Center Obstetrics & Gynecology Residency Program, Honolulu, Hawaii

### Ob-Gyn Residency Awards:

- 2021: American College of Obstetrics and Gynecology Armed Forces District Resident Paper Award
- 2021: "Most Likely to Deliver First Baby on Mars" Tripler OB/GYN residency award
- 2020: OB/GYN Teaching Fellow at the Uniformed Services University of the Health Sciences

Medical School: University of Kentucky College of Medicine, Lexington, KY

#### Medical School Honors/Awards:

- D. Kay Clayson Award (May 2019)
- University of Kentucky Academic Excellence Scholarship (August 2018)
- Gold Humanism Honor Society Induction (May 2018)
- Junior AΩA Induction (February 2018)
- M2 Community Service Award: University of Kentucky College of Medicine (November 2017)
- Outstanding Leadership & Community Service Award: University of Kentucky Dept of Family Medicine (April 2017)
- Rising Star Award Nomination: University of Kentucky Women in Medicine and Science (October 2016)
- M1 Community Service Award: University of Kentucky College of Medicine (September 2016)

*Undergraduate Education:* Louisiana State University, Baton Rouge, LA, B.S., Biochemistry Major, Chemistry Minor, graduated summa cum laude

#### Publications:

Gorski JW, Dietrich III CS, Davis C, Erol L, Dietrich H, Per NJ, Ferrell EL, McDowell AB, Riggs MJ, Hutchcraft ML, Baldwin-Branch LA, Miller RW, DeSimone CP, Gallion HH, Ueland FR, van Nagell JR, Pavlik EJ. Significance of Pelvic Fluid Observed During Ovarian Cancer Screening with Transvaginal Sonogram. Diagnostics. 2022 Jan;12(1):144

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- **Erol L**, Ligon S, Valenzuela H, Pierce B. Maternal Factors on Delivery Outcomes in Advanced Maternal Age with Induction of Labor. Tripler Army Medical Center BASS Research Symposium, 2021 [poster presentation].

- Ligon S, **Erol L**, Valenzuela H, Pierce B. 39 Week Elective Induction of Labor for Advanced Maternal Age Women. Tripler Army Medical Center BASS Research Symposium, 2021 [oral presentation].
- **Erol L**, Ligon S, Valenzuela H, Pierce B. Racially Disparate Outcomes among Advanced Maternal Age Inductions of Labor. American College of Obstetrics and Gynecology Armed Forces District Meeting 2021 [poster presentation].
- **Erol L**, Brown K, Elegino-Steffens D, Layman C. Parenoeplastic Hyperthyroidism Secondary to a Chemotherapy-Induced Surge in B-hcg in a Non-Seminomatous Germ Cell Tumor. Americal College of Physicians Tri-service Annual Meeting, 2020 [oral presentation].
- **Erol L**, Ligon S, Valenzuela H, Pierce B. Maternal Factors on Delivery Outcomes in Advanced Maternal Age with Induction of Labor. American College of Obstetrics and Gynecology Armed Forces District Meeting, 2020 [poster presentation].
- Ligon S, **Erol L**, Valenzuela H, Pierce B. 39 Week Elective Induction of Labor for Advanced Maternal Age Women. American College of Obstetrics and Gynecology Armed Forces District Meeting, 2020 [poster presentation].
- Valenzuela H, Ligon S, Erol L, Pierce B. Use of a Risk Assessment Calculator to Determine Appropriate Candidates for 39 Week Elective Induction of Labor for AMA. American College of Obstetrics and Gynecology Armed Forces District Meeting, 2020 [poster presentation].

### Title: Racially Disparate Outcomes among Advanced Maternal Age Inductions of Labor

Authors: Lindsay Erol, MD; Sarah Ligon, MD; Heather Valenzuela, MD; Brian Pierce, MD

**Objective**: Pregnancies in women ≥35 years, known as advanced maternal age (AMA), are often affected by increased morbidity. In 2012, our hospital offered an induction of labor (IOL) at 39 weeks for AMA to mitigate these risks. We previously evaluated maternal and fetal outcomes of these pregnancies. The objective of this study was to compare cesarean birth (CB) rates by race.

**Design:** Retrospective cohort study examining CB rates between IOL vs. spontaneous labor in ≥39-week AMA pregnancies, stratified by White, Asian, Black and Other women.

**Methods:** Descriptive statistics including mean, standard deviation, percentage and number are used to summarize background characteristics and clinical outcomes for the subjects. Chisquare tests and Fisher's exact tests were used to assess unadjusted associations between categorical variables. Nonparametric Kruskal-Wallis tests and Wilcoxon rank sum tests were used to assess differences in distributions of continuous variables among races. Multivariable logistic regression was used to estimate odds ratios for clinical outcomes for race, adjusted for risk factors. A significance level of 0.05 was used for all analyses.

**Results:** Black women had a higher overall CB rate compared to other races (35% vs. 15%, p<0.001), which remained disparate in the IOL cohort (36% vs. 17%, p=0.001), but not in spontaneous labor (27% vs. 10%, p=0.113). After adjusting for age, parity, body mass index, Bishop score, dilation, labor cohort and history of CB, the odds ratio for CB for Black vs. White was 4.39 (95% CI: 2.13-9.07, p <0.001). The CB rate was also higher for Asian vs. White women (adjusted odds ratio 2.26, 95% CI: 1.18-4.33, p=0.014). More Black women underwent an IOL compared to other races (84% vs. 67%, p=0.003).

**Conclusions:** Black and Asian women induced for AMA experienced higher CB rates at our military institution, even after adjusting for risk factors. Social determinants of health are comparable among races in the military, making it an ideal setting to study racial disparities. More studies are needed to investigate factors contributing to disparate CB rates in labor inductions among races.

Support: Tripler Army Medical Center Department of Statistics





### Eric Schmitt, MD

Obstetrics and Gynecology Resident Physician, Tripler Army Medical Center, Honolulu HI

Ob-Gyn Residency: Tripler Army Medical Center, Honolulu, HI

Ob-Gyn Residency Awards:

2021: PGY-1 Resident Council President

Medical School: UC San Diego School of Medicine, San Diego, CA

*Undergraduate Education:* Boston College, Boston, MA, B.S., Biology



### Title: Analyzing Trends in Obstetrics and Gynecology Fellowship Training Over the Last Decade using the Normalized Competitive Index

**Authors:** Eric Schmitt, MD; Nicholas Pyskir, MD; Collin Sitler, DO; Caela Miller, MD; Christopher Yheulon, MD; Gary Levy, MD

**Objective:** To analyze trends in the overall competitiveness of the various obstetric and gynecologic sub-specialty fellowship matches over the last decade.

Design: Retrospective Cohort Study.

Methods: Fellowship match data was analyzed for trends over a 10-year period (2010-2019). Data from official fellowship matches were made available in annual reports on the National Resident Match Program (NRMP) website (https://nrmp.org) from 2008 to 2020. The subspecialties' competitiveness was compared by calculating the Normalized Competitive Index (NCI), a previously published metric. The NCI is used to normalize each sub-specialty's competitive index (CI) to a reference value of one. The competitive index (CI) is defined as program fill rate (filled programs divided by total programs) divided by match rate (number of matches divided by number of total applicants). Next the NCI is calculated by dividing the CI for that subspecialty for that year by a cumulative competitive index for all obstetric and gynecologic subspecialties included (program fill rate for all specialties in that year divided by the match rate for all subspecialties in that year). The NCI of each subspecialty was compared using a single sample t-test. Match rate and program fill rates were compared to the cumulative rates for all subspecialties minus the subspecialty of interest using the chi-square goodness of fit test. Subspecialty data was broken down into five year intervals for sub analysis, with some subspecialties excluded due to a lack of available data. The association between the NCI and other metrics, such as total program ranks per applicant, US allopathic match rate, and top-3 choice match rate, was interpreted using Pearson Correlation Coefficients.

**Results:** Among fellowship programs in Obstetrics and Gynecology, the overall specialty match rate was 67.6%. The overall specialty program fill rate was 95.7%. By the NCI metric, Minimally Invasive Gynecologic Surgery (MIGS) was the most competitive fellowship match (NCI = 1.31, p=0.002). Maternal-fetal Medicine (MFM) was the least competitive (NCI = 0.94, p= < 0.005). When comparing the first and second half of the decade, no specialty has experienced a significant decrease in match rate. The only significant increase in match rates occurred in Female Pelvic Medicine and Reconstructive Surgery (p=0.035). Sub-analyses of the NCI metric and other indicators of competitiveness demonstrated a strongly negative correlation between NCI and sub-specialty match rate (r=-0.9444), and a moderately positive correlation between NCI and program fill rate (r=0.4047).

**Conclusions:** By the NCI metric, Minimally Invasive Gynecologic Surgery is the most competitive subspecialty of Obstetrics and Gynecology, and Maternal-fetal Medicine is the least competitive subspecialty. The NCI offers trainees a more quantitative understanding of the fellowship application environment, and can be used by programs directors and mentors to guide early career steps in future applicants with a particular aptitude or interest. The same standardization offers the potential for future comparisons of competitiveness within a single sub-specialty match based on geographic region, applicant demographics, and other important determinants of a diverse training environment.

Support: None

Acknowledgements: None



### Marit Pearlman Shapiro, MD, MPH

Fellow, Complex Family Planning, Department of Obstetrics and Gynecology, John A. Burns School of Medicine (JABSOM), University of Hawai'i, Honolulu, HI

*Ob-Gyn Residency:* Albert Einstein College of Medicine/Montefiore Medical Center, New York, NY

Ob-Gyn Residency Awards:

- 2018: The Ryan Program Resident Award for Excellence in Family Planning
- 2017, 2018: Leo M. Davidoff Society Teaching Award

Medical School: Icahn School of Medicine at Mount Sinai, New York, NY

### Medical School Honors/Awards:

- Gold Humanism Honor Society (2016)
- Delta Omega Honor Society in Public Health, Beta Omicron Chapter (2015)
- Medical Students for Choice Abortion Training Institute (2015)
- Mount Sinai Global Health Research Grant (2013)

*Graduate Education:* Icahn School of Medicine at Mount Sinai, New York, NY, MPH with Global Health specialization

*Undergraduate Education:* Columbia University, New York, NY, B.A. in Urban Studies, Sustainable Development, Department Honors, Anthropology, summa cum laude

#### Publications:

- **Pearlman Shapiro M**, Crystal-Ornelas L, Lunde B. Medical Students' Experience as Abortion Doulas. Teaching and Learning in Medicine (submitted for initial review).
- Pearlman Shapiro M, Avila K, Levi E. Breastfeeding and Contraception Counseling: A Qualitative Study. BMC Pregnancy and Childbirth. 2022 Feb 25;22(1):154.
- Raidoo S, Pearlman Shapiro M, Kaneshiro B. Contraception in Adolescents. Semin Reprod Med. 2021 Sep 9.

- Pearlman Shapiro M, Termulo K, McAllaster S, Raidoo S. An implementation project to expand access to teledoulas for abortion patients. American College of Obstetrics and Gynecologists 2022 Annual Clinical and Scientific Meeting, May 2022, San Diego, CA [poster presentation].
- Pearlman Shapiro M, Riddle C, Maeji K, Soin K. A Novel Gelatin Model for Early Pregnancy Ultrasound Simulation. Society of Teachers of Family Medicine 2022 Annual Spring Conference, April 2022, Indianapolis, IN [oral presentation].
- Liu M, Claypoole L, Raidoo S, **Pearlman Shapiro M**. Teledoulas: Medical Students' Experiences Providing Remote Support for Abortion Patients, Health Professions Education Conference, February 2022, Honolulu, HI [oral presentation].
- Pearlman Shapiro M, Kaneshiro B, Natavio M. Effect of prophylactic tranexamic acid on bleeding outcomes in women undergoing dilation and evacuation. American Society for Reproductive Medicine Scientific Congress, October 2021, Baltimore, MD.

- **Pearlman Shapiro M**, Avila K, Levi E, Breastfeeding and Contraception Counseling: A Qualitative Study. Albert Einstein College of Medicine Resident Research Day, June 2019.
- Pearlman Shapiro M, Crystal-Ornelas L, Lunde B. Medical Students' Experiences as Abortion Doulas. North American Forum on Family Planning, October 2018, New Orleans, LA [poster presentation].
- Hoan KM, Pearlman Shapiro MA, Ascher-Walsh C, Barr Grzesh RL, Weinberg A. The Relationship of Surgical Performance on Visuospatial Ability in GYN Residents. AAGL Annual Global Congress on Minimally Invasive Gynecology, November 2017, National Harbor, MD.
- Pereira E, Kolev V, Gaigbe-Togbe B, Rahaman J, Pearlman Shapiro M, Hayes MP. Chemotherapy and Radiotherapy for the Adjuvant Treatment of Uterine Papillary Serous Carcinoma. Society of Gynecologic Oncology Annual Meeting on Women's Cancer, March 2017, National Harbor, MD.
- Azfal O, Dottino P, Lieber M, du Preez C, Pearlman Shapiro M, Brodman M, Beddoe AM.
   Cervical cancer screening in rural South Africa among HIV-infected migrant farm workers and sex workers. Society of Gynecologic Oncology Annual Meeting on Women's Cancer, March 2016, San Diego, CA.
- Pearlman Shapiro M, Hennig N. Correlation of Risk Factors and Academic Performance of Worldwide Orphans Academy in Addis Ababa, Ethiopia. Consortium of Universities for Global Health Conference, May 2014, Washington D.C.
- Pearlman Shapiro M, Henning N. Implementing a Screening and Referrals System for Opthalmologic Care in a HIV Population at the Worldwide Orphans Clinic in Addis Ababa, Ethiopia. Mount Sinai's Internal Medicine Grand Rounds Presentation, February 2014, New York, NY.

### Title: "No test" medication abortion: a systematic review

**Objective:** To summarize the effectiveness and safety outcomes of "no test" medication abortions, those performed without a prior pelvic examination or ultrasound.

**Data sources:** We searched Medline, Scopus, Web of Science, Cochrane, CINAHL, Global Index Medicus and CAB Direct databases to identify relevant studies prior to April 2022 using a peer-reviewed search strategy including terms such as "medication abortion" and "ultrasonography." Experts in the field were contacted for unpublished data and ongoing studies.

**Methods of Study Selection:** 2423 studies were reviewed using Colandr. Studies were included if they presented clinical outcomes of medication abortion performed without prior pelvic examination or ultrasound. Studies with duplicate data were excluded.

**Tabulation, Integration and Results**: We included 21 studies with a total of 10,693 patients with outcome data reported. We abstracted successful abortion rates overall, as well as by gestational age through 63 days, 70 days and over 84 days. We abstracted complication rates, including need for surgical evacuation, additional medications, blood transfusion, and ectopic pregnancy. The overall efficacy of "no test" medication abortion is 96.4%, and is 93.8% through 63 days of gestation and 95.2% through 70 days of gestation. The overall rate of surgical evacuation is 4.4%, need for additional misoprostol is 2.2%, blood transfusion is 0.5%, and ectopic pregnancy is 0.06%.

**Conclusion:** Medication abortion performed without prior pelvic examination or ultrasound is a safe and effective option for pregnancy termination.





### Melanie Maykin, MD

Fellow, Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, John A. Burns School of Medicine (JABSOM), University of Hawai'i, Honolulu, HI

Ob-Gyn Residency: University of California San Francisco Obstetrics, Gynecology, & Reproductive Sciences, San Francisco, CA

Ob-Gyn Residency Awards:

 2018: Foundation for Society for Maternal-Fetal Medicine Resident Scholars Program

Medical School: The David Geffen School of Medicine at UCLA, Los Angeles, CA

#### Medical School Honors/Awards:

- Alpha Omega Alpha (AOA) Honor Medical Society (2015)
- William J. Dignam Award for Excellence in Obstetrics and Gynecology at UCLA (2015)
- OB/GYN Assembly of Southern California Best Poster (2015)

*Undergraduate Education:* University of California Berkeley, Berkeley, CA, B.A. in Integrative Biology and Public Health

### Research Experience:

- Division of Maternal-Fetal Medicine, University of Hawaii Department of Obstetrics, Gynecology, & Women's Health, Honolulu, HI. Designed an IRB-approved, doubleblinded, randomized placebo-controlled trial examining the utility of furosemide as an adjunct to usual antihypertensive in the treatment of antepartum severe range blood pressure with wide pulse pressure.
- Division of Maternal-Fetal Medicine, University of Hawaii Department of Obstetrics, Gynecology, & Women's Health, Honolulu, HI. Performed a retrospective cohort study of all periviable births occurring at a single high-volume, tertiary care referral center from 2017-2019.
- Division of Maternal-Fetal Medicine, University of Hawaii Department of Obstetrics, Gynecology, & Women's Health, Honolulu, HI. Design and conduct experiments using placental explants to determine the effects of in vitro methadone and buprenorphine on placental opiod receptors.
- Division of Maternal-Fetal Medicine, University of Hawaii Department of Obstetrics, Gynecology, & Women's Health, Honolulu, HI. Conducted a retrospective cohort study of 100,000 births recorded by the Hawaii Department of Health to determine if race was an independent predictor of preterm birth and preterm birth subtype.
- Division of Maternal-Fetal Medicine, UCSF Department of Obstetrics, Gynecology & Reproductive Sciences, San Francisco, CA. Designed and completed a prospective cohort study investigating perinatal outcomes and patient satisfaction with therapeutic rest in early labor (e.g. morphine sleep).
- Division of Maternal-Fetal Medicine, UCSF Department of Obstetrics, Gynecology & Reproductive Sciences, San Francisco, CA. Organized dataset and composed abstract

- for a descriptive case series that describes the role of amniocentesis in diagnosing prenatal Zika virus infection in pregnant women with suspected infection by symptoms and/or abnormal fetal ultrasound findings.
- Division of Maternal-Fetal Medicine, UCSF Department of Obstetrics, Gynecology & Reproductive Sciences, San Francisco, CA. Contributed to original manuscript of nested prospective cohort study aimed at evaluating prenatal ultrasound as a tool in predicting postnatal outcomes and describing the spectrum of ultrasound findings in Zika virus-affected pregnancies.
- Division of Maternal-Fetal Medicine, UCSF Department of Obstetrics, Gynecology & Reproductive Sciences, San Francisco, CA. Managed dataset for nested prospective cohort study which investigates histopathic findings in placentas from Zika-affected pregnancies as well as factors associated with adverse perinatal outcomes.
- Division of Maternal-Fetal Medicine, UCSF Department of Obstetrics, Gynecology & Reproductive Sciences, San Francisco, CA. Managed data collection of twin pregnancies complicated by cervical insufficiency, short cervix, or advanced dilation in order to investigate the efficacy of cerclage on reducing preterm birth <32 weeks as compared to no intervention.
- Division of Maternal-Fetal Medicine, UCLA Department of Obstetrics & Gynecology, Los Angeles, CA. Created and conducted a retrospective cohort study of women attempting a TOLAC at UCLA Medical Center to validate the Maternal-Fetal Medicine Units Network VBAC prediction model and to identify factors associated with higher or lower-than-predicted success rates.

#### Publications:

- Maykin MM, Pilliod RA, Werner EF. Discriminatory regulations on postpartum sterilization for Medicaid recipients propagate health inequities. The Lancet Regional Health – Americas. 2021 Nov 10.
- Maykin MM, Lewkowitz AK. Reply to the Letter to the Editor: Therapeutic rest in early labor unlikely to contribute to unplanned neonatal intensive care unit admissions. Am J Obstet Gynecol MFM. 2021 Jun 25;3(5):100433.
- Maykin MM, Ukoha EP, Tilp V, Gaw SL, Lewkowitz AK. Impact of therapeutic rest in early labor on perinatal outcomes: a prospective study. Am J Obstet Gynecol MFM. 2021 May;3(3):100325
- Maykin MM, Heuser C, Feltovich H. Pregnant people deserve the protection offered by SARS-CoV-2 vaccines. Vaccine. 2021 Jan 8;39(2):171-172.
- Maykin M, Tsai SP. Our Mothers Are Dying: The Current State of Maternal Mortality in Hawai'i and the United States. Hawaii J Health Soc Welf. 2020 Oct 1;79(10):302-305.
- Ha TK, Rao RR, Maykin MM, et al. Vaginal birth after cesarean: Does accuracy of predicted success change from prenatal intake to admission? Am J Obstet Gynecol MFM 2020;2:100094.
- Maykin MM\*, Pereira JP\*, Vasconcelos Z, Avvad-Portari E, Zin AA, Tsui I, Brasil P, Nielsen-Saines K, Moreira ME, Gaw SL. The Role of Amniocentesis in the Diagnosis of Congenital Zika Syndrome. Clin Infect Dis. 2019 Aug 1;69(4):713-716. \*Co-first author.
- Mei JY, Havard AL, Mularz AJ, Maykin MM, Gaw SL. Impact of obesity class on trial of labor after cesarean success: does prepregnancy or at-delivery obesity status matter? J Perinatol. 2019 Aug;39(8):1042-1049.
- Pereira JP Jr, Nielsen-Saines K, Sperling J, Maykin MM, Damasceno L, Cardozo RF, Valle HA, Dutra BRT, Gama HD, Adachi K, Zin AA, Tsui I, Vasconcelos Z, Brasil P, Moreira ME, Gaw SL. Association of Prenatal Ultrasonographic Findings With Adverse Neonatal

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- Maykin MM, Mularz AJ, Lee LK, Valderramos SG. Validation of a Prediction Model for Vaginal Birth after Cesarean Delivery Reveals Unexpected Success in a Diverse American Population. AJP Rep. 2017 Jan;7(1):e31-e38.

#### Presentations:

- Maykin MM, Benny P, Riel J, Mercer E, Bartholomew M, Miller C, Lee MJ. The Effect of Methadone vs. Buprenorphine on Opioid-Mediated Responses in Human Placental Explants. Society for Maternal-Fetal Medicine 42<sup>nd</sup> Annual Pregnancy Meeting, 31 January – 5 February 2022, virtual [poster presentation].
- Pearlman Shapiro M, Crystal-Ornelas L, Lunde B. Medical Students' Experiences as Abortion Doulas. North American Forum on Family Planning, October 2018, New Orleans, LA [poster presentation].
- Maykin MM, Pereira JP, Vasconcelos Z, Avvad-Portari E, Zin AA, Tsui I, Brasil P, Neilsen-Saines K, Moreira ME, Gaw SL. Role of Amniocentesis in the Diagnosis of Congenital Zika Syndrome. Infectious Diseases Society for Obstetrics and Gynecology Annual Meeting, 2-4 August 2018, Philadelphia, PA [poster presentation].
- Mei JY, Havard A, Mularz AJ, Maykin MM, Valderramos SG. Does Obesity Increase the Complication Rate During Trial of Labor After Cesarean? 2017 American Congress of Obstetrics and Gynecology Annual Clinical and Scientific Meeting, May 2017, San Diego, CA [poster presentation].
- Havard A, Mei JY, Mularz AJ, Maykin MM, Valderramos SG. Impact of Gestational Weight Gain on Trial of Labor After Cesarean Success. 2017 American Congress of Obstetrics and Gynecology Annual Clinical and Scientific Meeting, May 2017, San Diego, CA [poster presentation].
- Ha T, Gaw SL, Havard AL, Maykin MM, Mei J, Rao R. Validation of the Admission Prediction Model for Vaginal Birth After Cesarean Delivery. Society for Maternal-Fetal Medicine 37<sup>th</sup> Annual Pregnancy Meeting, 29 January 3 February 2017, Dallas, TX [poster presentation].
- Maykin MM, Avvad-Portari E, Esquivel M, Periera Jr JP, Fisher SJ, Moreira ME, Neislen-Saines K, Brasil PJ, Demasceno L, Gaw SL. Placental Histopathological Findings in Zika-infected Pregnancies. Society for Maternal-Fetal Medicine 37<sup>th</sup> Annual Pregnancy Meeting, 29 January 3 February 2017, Dallas, TX [poster presentation].
- Valderramos SG, O'Donnell BE, Maykin MM, Gonzalez JG, Tabsh K. Cerclages in Twin Pregnancies to Reduce the Preterm Birth Rate Before 32 Weeks. Society for Maternal-Fetal Medicine 36<sup>th</sup> Annual Pregnancy Meeting, 1-6 February 2016, Atlanta, GA [poster presentation].
- Maykin MM, Mularz AJ, Valderramos SG. Validation of the Prediction Model for Success of Vaginal Birth After Cesarean Delivery at Ronald Reagan UCLA Medical Center. 70<sup>th</sup> Annual OB/GYN Assembly of Southern California Meeting, 8-9 May 2015, Marina del Rey, CA [poster presentation].
- Mellano E, Tarnay C, Maykin MM. Bilateral Sacrospinous Ligament Suspension for Apical Detachment of the Rectovaginal Septum: A Technique for Site-specific Posterior Repair. American Urogynecologic Society 35<sup>th</sup> Annual Scientific Meeting, 2014, Washington, D.C. [poster presentation].

### Title: Furosemide to Lower Antenatal Severe Hypertension (FLASH): A Randomized Placebo-Controlled Trial

**Background:** In hypertension characterized by a high cardiac output, hyperdynamic state, reducing blood volume may be an effective strategy in lowering blood pressure (BP). Furosemide is a rapidly acting loop diuretic with an antihypertensive effect. It acts primarily by increasing the excretion of water, sodium, and other electrolytes.

**Objective:** To evaluate whether the addition of IV furosemide to first-line antihypertensive reduces systolic blood pressure (SBP) during the hour after treatment compared to placebo for the management of acute-onset, severe (SBP ≥160 mmHg and/or DBP ≥110 mmHg) antenatal hypertension with wide (≥60mmgHg) pulse pressure (PP).

**Methods:** We conducted a randomized, double-blinded, placebo-controlled trial in which eligible participants were allocated to either 40 milligrams of IV furosemide or an equivalent volume of placebo. The primary outcome was SBP during the hour after receiving the allocated intervention. Secondary outcomes included average diastolic blood pressure (DBP) during the hour after intervention, SBP and DBP at 2 hours, duration of BP control, the need for additional antihypertensives, maternal electrolyte and physiologic responses, and other perinatal outcomes. A sample size of 28 subjects per arm (56 total) was planned for 80% power to detect a 15 mmHg decrease in SBP. We applied an intention-to-treat analysis.

Results: Between January 2021 to March 2022, 122 patients were screened. Sixty-five total patients were randomized and received the allocated intervention (33 furosemide, 32 placebo). There was no difference in baseline demographics, obstetrical characteristics, and most clinical characteristics including qualifying SBP, DBP, PP, and type of antihypertensive administered. We found a significant difference in types of hypertension between the groups, with greater chronic hypertensive and fewer pre-eclamptic patients in the furosemide group (chronic hypertension: 18% vs 0%, pre-eclampsia: 39% vs 59%; P=.026). There was no difference in the primary outcome of average SBP during the hour after intervention (mean mmHg (SD) 147 (14.8) vs 152 (13.8), P=.200). We found a significant reduction in SBP 2 hours after receiving the intervention in the furosemide group (SBP 139 (18.5) vs 154 (18.4), P=.007). Similarly, PP at 2 hours was decreased in the furosemide group (55 (12.5) vs 67 (15.1), P=.003). Latency until next acute antihypertensive was more than 3 times longer in the furosemide group, although this did not reach statistical significance (10.8 hours [.8—31.1] vs 3.2 [.4—25.9], P=.276). Participants in the furosemide group had higher urine output (mL) following treatment (median [IQR] 1550 [1000—2075] vs 900 [500—1413], P=<.001). Maternal electrolytes and renal function before and after allocation were similar between groups. There were no differences in other perinatal outcomes.

**Conclusion:** Treatment with IV furosemide in conjunction with first-line antihypertensive did not significantly reduce SBP in the hour after administration. However, at 2 hours, both SBP and PP were decreased in the furosemide group. These findings suggest that a one-time dose of IV furosemide may aid in blood pressure control by reducing volume without causing major electrolyte disturbances, though this effect is not immediate.

### Resident & Fellow Research Day 2022 Research Productivity of UH OB/GYN

To view the Google Drive containing the abstracts and posters presented by our residents, faculty, and fellows between June 2021 and May 2022, please click <u>here</u> or follow the QR code below:



# Resident & Fellow Research Day 2022 Research Productivity of UH OB/GYN Faculty, Fellows, Clinical Faculty, Residents, and Medical Students Publications June 2021 – May 2022

- Benny P, Ahn HJ, Burlingame J, Lee MJ, Miller C, Chen J, Urschitz J. Genetic risk factors associated with gestational diabetes in a multi-ethnic population. PLoS One. 2021 Dec 20; 16(12): e0261137. doi: 10.1371/journal.pone.0261137. PMID: 34928995. PubMed.
- 2. Bharucha J, Saito-Tom L. Postpartum sepsis-like illness and rash associated with Hansen's disease. Case Rep. Perinat. Med. 2022; 11(1):1-4.
- 3. Buchanan C, Kuo S, Minton L, Lee MJ, Choi SY, Soon R. Neonatal Hypoxic Ischemic Encephalopathy and Planned Home Birth. J Midwifery Womens Health. 2022 Jan;67(1):69-74. doi: 10.1111/jmwh.13309. PMID: 35037395. PubMed.
- 4. Burger T, Li J, Zhao Q, Schreiber C, Teal S, Turok D, Natavio M, Peipert J. Association of Obesity With Longer Time to Pregnancy. Obstet Gynecol. 2022 Mar 10. doi: 10.1097/AOG.0000000000004703. PMID: 35272299. PubMed.
- Chang CS, Carney ME, Killeen JL. Two Cases of Mesonephric-like Carcinoma Arising From Endometriosis: Case Report and Review of the Literature. Int J Gynecol Pathol. 2022 Feb 22. doi: 10.1097/PGP.0000000000000863. PMID: 35191427. PubMed.
- Choe J, Archer JS, Shanks AL. In Vitro Fertilization. 2021 Sep 9. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan—. PMID: 32965937. PubMed.
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- 8. Friedlander EK, Raidoo S, Soon R, Salcedo J, Davis J, Tschann M, Fontanilla T, Horiuchi W, Kaneshiro B. The experience of pain in real-time during medication abortion. Contraception. 2022 Mar 10; S0010-7824(22)00062-2. doi: 10.1016/j.contraception.2022.03.003. PMID: 35283083. PubMed.
- Fukuda A, Katz A, Park I, Komeya A, Chang A, Ching N, Tomas J, Wasserman G. Congenital Syphilis: A Case Report Demonstrating Missed Opportunities for Screening and Inadequate Treatment Despite Multiple Health Care Encounters During Pregnancy. Sex Transm Dis. 2021 Sep 1; 48(9):e124-e125. doi: 10.1097/OLQ.000000000001352. PMID: 34110747. PubMed.
- 10. Glubb DM, Thompson DJ, Aben KKH, Alsulimani A, Amant F, Annibali D, Attia J, Barricarte A, Beckmann MW, Berchuck A, Bermisheva M, Bernardini MQ, Bischof K, Bjorge L, Bodelon C, Brand AH, Brenton JD, Brinton LA, Bruinsma F, Buchanan DD, Burghaus S, Butzow R, Cai H, Carney ME, Chanock SJ, Chen C, Chen XQ, Chen Z, Cook LS, Cunningham JM, De Vivo I, deFazio A, Doherty JA, Dörk T, du Bois A, Dunning AM, Dürst M, Edwards T, Edwards RP, Ekici AB, Ewing A, Fasching PA, Ferguson S, Flanagan JM, Fostira F, Fountzilas G, Friedenreich CM, Gao B, Gaudet MM, Gawełko J, Gentry-Maharaj A, Giles GG, Glasspool R, Goodman MT, Gronwald J, Harris HR, Harter P, Hein A, Heitz F,

- Hildebrandt MAT, Hillemanns P, Høgdall E, Høgdall CK, Holliday EG, Huntsman DG, Huzarski T, Jakubowska A, Jensen A, Jones ME, Karlan BY, Karnezis A, Kelley JL, Khusnutdinova E, Killeen JL, Kjaer SK, Klapdor R, Köbel M, Konopka B, Konstantopoulou I, Kopperud RK, Koti M, Kraft P, Kupryjanczyk J, Lambrechts D, Larson MC, Le Marchand L, Lele S, Lester J, Li AJ, Liang D, Liebrich C, Lipworth L, Lissowska J, Lu L, Lu KH, Macciotta A, Mattiello A, May T, McAlpine JN, McGuire V, McNeish IA, Menon U, Modugno F, Moysich KB, Nevanlinna H, Odunsi K, Olsson H, Orsulic S, Osorio A, Palli D, Park-Simon TW, Pearce CL, Pejovic T, Permuth JB, Podgorska A, Ramus SJ, Rebbeck TR, Riggan MJ, Risch HA, Rothstein JH, Runnebaum IB, Scott RJ, Sellers TA, Senz J, Setiawan VW, Siddiqui N, Sieh W, Spiewankiewicz B, Sutphen R, Swerdlow AJ, Szafron LM, Teo SH, Thompson PJ, Thomsen LCV, Titus L, Tone A, Tumino R, Turman C, Vanderstichele A, Edwards DV, Vergote I, Vierkant RA, Wang Z, Wang-Gohrke S, Webb PM; OPAL Study Group; AOCS Group, White E, Whittemore AS, Winham SJ, Wu X, Wu AH, Yannoukakos D, Spurdle AB, O'Mara TA. Cross-Cancer Genome-Wide Association Study of Endometrial Cancer and Epithelial Ovarian Cancer Identifies Genetic Risk Regions Associated with Risk of Both Cancers. Cancer Epidemiol Biomarkers Prev. 2021 Jan;30(1):217-228. doi: 10.1158/1055-9965.EPI-20-0739. PMID: 33144283. PubMed.
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- 13. Hoffman BD, Gilbert TA, **Chan K**, Ennis B, Gallardo A, Carlson KF. Getting Babies Safely Home: A Retrospective Chart Review of Car Safety Seat Tolerance Screening Outcomes. Acad Pediatr. 2021 Nov-Dec;21(8):1355-1362. doi: 10.1016/j.acap.2021.02.012. PMID: 33631364. <a href="PubMed">PubMed</a>.

- 14. **Kaiser SB**, Morrison A, Boyajian C, Rouse DJ. Connect the Dots October 2021. Obstetrics and Gynecology. 2021 Oct; 138(4): 678-679. doi: doi: 10.1097/AOG.0000000000004550. Link to article.
- 15. Kawamura M, Mau M, Soon R, Yamasato K. A Scoping Review on Gestational Diabetes in Hawai'i: A "Window of Opportunity" to Address Intergenerational Risk for Type 2 Diabetes Mellitus. Hawaii J Health Soc Welf. 2022 Mar; 81(3):58-70. PMID: 35261986. PubMed.
- 16. Kim J, Ayabe A. Obesity in Pregnancy. 2021 Aug 13. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan–. PMID: 34283479. PubMed.
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  Transcutaneous Electrical Nerve Stimulation for Post-Cesarean Delivery Pain Control: A Randomized Controlled Trial. Obstetrics & Gynecology. Recently accepted for publication.
- 18. Lee AW, Rosenzweig S, Wiensch A; Australian Ovarian Cancer Study Group, Ramus SJ, Menon U, Gentry-Maharaj A, Ziogas A, Anton-Culver H, Whittemore AS, Sieh W, Rothstein JH, McGuire V, Wentzensen N, Bandera EV, Qin B, Terry KL, Cramer DW, Titus L, Schildkraut JM, Berchuck A, Goode EL, Kjaer SK, Jensen A, Jordan SJ, Ness RB, Modugno F, Moysich K, Thompson PJ, Goodman MT, Carney ME, Chang-Claude J, Rossing MA, Harris HR, Doherty JA, Risch HA, Khoja L, Alimujiang A, Phung MT, Brieger K, Mukherjee B, Pharoah PDP, Wu AH, Pike MC, Webb PM, Pearce CL. Expanding Our Understanding of Ovarian Cancer Risk: The Role of Incomplete Pregnancies. J Natl Cancer Inst. 2021 Mar 1;113(3):301-308. doi: 10.1093/jnci/djaa099. PMID: 32766851. PubMed.
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- 21. Miller C, Lim E. The risk of diabetes after giving birth to a macrosomic infant: data from the NHANES cohort. Matern Health Neonatol Perinatol. 2021 May 12; 7(1):12. doi: 10.1186/s40748-021-00132-8. PMID: 33980302. PubMed.
- 22. Nguyen H, Wu H, Ung A, Yamazaki Y, Fogelgren B, **Ward WS**. Deletion of Orc4 during oogenesis severely reduces polar body extrusion and blocks zygotic DNA replication. Biol Reprod. 2022 Jan 3:ioab237. doi: 10.1093/biolre/ioab237. PMID: 34977916. <a href="PubMed">PubMed</a>.
- 23. **Olson AK**, Hansen KA. Menstrual Migraines: Diagnosis, Evidence, and Treatment. S D Med. 2021 Dec;74(12):570-575. PMID: 35015948. <u>PubMed</u>.
- 24. Pearlman Shapiro M, Avila K, Levi EE. Breastfeeding and contraception counseling: a qualitative study. BMC Pregnancy Childbirth. 2022 Feb 25;22(1):154. doi: 10.1186/s12884-022-04451-2. PMID: 35216562. PubMed.

- 25. Quinn M, McCue K, Shi W, Johnatty S, Beesley J, Civitarese A, O'Mara T, Glubb D, Tyrer J, Armasu S, Ong JS, Gharahkhani P, Lu Y, Gao B, Patch AM, Fasching P, Beckmann M, Lambrechts D, Vergote I, Edwards D, Beeghly-Fadiel A, Benitez J, Garcia M, Goodman T, Dörk T, Dürst M, Modugno F, Moysich K, du Bois A, Pfisterer J, Bauman K, Karlan B, Lester J, Cunningham J, Larson M, McCaulet B, Kjaer S, Jensen A, Hogdall C, Hogdall E, Schildkraut J, Riggan M, Berchuck A, Cramer D, Terry K, Bjorge L, Webb P, Friedlander M, Pejovic T, Moffitt M, Glasspool R, May T, Ene G, Huntsman D, Woo M, Carney M, Hinsley S, Heitz F, Fereday S, Kennedy C, Edwards S, Winham S, DeFazio A, Pharoah P, Goode E, MacGregor S, Chenevix-Trench G, AGO Study Group; Opal Study Group; for Australian Ovarian Cancer Study Group. Identification of a Locus Near *ULK1* Associated With Progression-Free Survival in Ovarian Cancer. Cancer Epidemiol Biomarkers Prev. 2021 Sep; 30(9):1669-1680. doi: 10.1158/1055-9965.EPI-20-1817. PMID: 34162658. PubMed.
- 26. Raidoo S, Pearlman Shapiro M, Kaneshiro B. Contraception in Adolescents. Semin Reprod Med. 2021 Sep 9. doi: 10.1055/s-0041-1735629. PMID: 34500476. PubMed.
- 27. Sperling M, **Towner D**, Davis J, **Yamasato K**. Second trimester prediction of gestational diabetes: maternal analytes as an additional screening tool. J Perinat Med. 2021 Jul 27; 50(1):63-67. doi: 10.1515/jpm-2021-0054. PMID: 34315194. PubMed.
- 28. Upadhyay UD, Raymond EG, Koenig LR, Coplon L, Gold M, Kaneshiro B, Boraas CM, Winikoff B. Outcomes and Safety of History-Based Screening for Medical Abortion: A Retrospective Multicenter Cohort Study. JAMA Intern Med; 2022 Mar 21. doi: 10.1001/jamainternmed.2022.0217. PMID: 35311911. PubMed.
- 29. Williams RH, Shah J, **Mercer E**, Tian HS, Thompson V, Cheung JM, Dorso M, Kubala JM, Gudas LJ, de Stanchina E, Heller DA. Kidney-Targeted Redox Scavenger Therapy Prevents Cisplatin-Induced Acute Kidney Injury. Front Parmacol. 2022 Jan 3; 12:790913. doi: 10.3389/fphar.2021.790913. PMID: 35046813. PubMed.
- 30. Wong Ramsey K, Beckwith N, Heathcock L, **Myers T**, Balaraman V. Advocating For a Culture of Support for Lactating Medical Residents in Hawaii. Hawaii J Health Soc Welf. 2021 Dec; 80(12): 304-306. PMID: 34500476. PubMed.

## Department of OB/GYN Abstract Presentations Faculty, Fellows, Clinical Faculty, Residents, and Medical Students June 2021 – May 2022

- Chan K, Saito-Tom L, Lozanoff S, Pagat S. Ingredient Substitution in the Recipe for Success: Adding Anatomy Education to OB/GYN Clerkship Transition to Compensate for COVID-19 Lockdown Deficiencies. CREOG & AGPO Annual Meeting, March 10, 2022, Orlando, FL [oral presentation]. <u>Abstract</u>.
- Chan K, Saito-Tom L, Lozanoff S, Pagat S. Ingredient Substitution in the Recipe for Success: Adding Anatomy Education to OB/GYN Clerkship Transition to Compensate for COVID-19 Lockdown Deficiencies. Health Professions Education Conference Annual Meeting, February 12, 2022, Honolulu, HI [oral presentation]. <u>Abstract</u>.
- 3. Chan K, Stowers P. Medical Student Virtual Away Rotations Lacking in OB/GYN. Health Professions Education Conference Annual Meeting, February 12, 2022, Honolulu, HI [poster presentation]. Abstract. Poster.
- 4. **Cochrane B**, **Pangilinan M**, Kiyokawa M, Cape M. Home Induction of Buprenorphine for Treatment of Kratom Use Disorder During Pregnancy. Hawaii Addiction Medicine Conference, April 29, 2022, Honolulu, HI [poster presentation]. <u>Abstract</u>.
- Ghatnekar R, Huang T, Kosasa T, Arnett C, Huang C, Ohta A. Comparison of euploid blastocyst expansion with subgroups of single chromosome, multiple chromosome, and segmental mosaics using an Al platform. American Society of Reproductive Medicine Scientific Congress, October 18-20, 2021, Baltimore, MD [poster presentation].
- 6. **Ghatnekar R**, Karmon A, **Frattarelli J**. Male factors affecting preimplantation genetic test results in Japanese donor egg in vitro fertilization cycles. American Society of Reproductive Medicine Scientific Congress, October 18-20, 2021, Baltimore. MD [oral presentation].
- 7. **Ghatnekar** R, Karmon A, **Frattarelli J**. Male factors affecting preimplantation genetic test results in Japanese donor egg in vitro fertilization cycles. University of Hawaii Department of Obstetrics and Gynecology and Women's Health 26th Annual Research Day, May 6, 2021, Honolulu, HI [oral presentation].
- 8. **Kaiser S**, **Ghatnekar R**, **Raidoo S**. Is it time to update the screening recommendations for patients with polycystic ovary syndrome? ASRM Scientific Congress & Expo, October 16-20, 2021, Baltimore, MD [poster presentation]. Poster.
- 9. **Kaiser S**, **Ghatnekar R**, **Raidoo S**. Provider experience with cardiometabolic screening in patients with polycystic ovary syndrome in Hawaii. American Society of Reproductive Medicine Scientific Congress, October 18-20, 2021, Baltimore, MD [poster presentation].
- 10. Liu M, Claypoole L, Pearlman Shapiro M, Raidoo S. Teledoulas: Medical Students' Experiences Providing Remote Support for Abortion Patients. Health Professions Education Conference, February 12, 2022, Honolulu, HI [oral presentation]. Abstract.

- 11. Malley A, Raidoo S, Loomis A, Lee MJ. Presenting Characteristics, Complications, and Outcomes of Pregnant Tourists who Present to the Hospital in Hawaii. ACOG Annual Clinical & Scientific Meeting, May 6-8, 2022, San Diego, CA [poster presentation]. Abstract. Poster.
- 12. Maykin M, Benny P, Riel J, Mercer E, Bartholomew M, Miller C, Lee MJ. The effect of buprenorphine vs. methadone on opioid-mediated responses in human placental explants. SMFM 42nd Annual Meeting, February 3, 2022, Virtual [poster presentation].
- 13. Maykin M, Mercer E, George K, Yamasato K. Periviable delivery management and outcomes in a largely Native Hawaiian, Pacific Islander, and Asian population. ACOG Annual Clinical and Scientific Meeting, May 8, 2022, San Diego, CA [poster presentation].
- 14. Pearlman Shapiro M, Kaneshiro B, Natavio M. Effect of phophylactic tranexamic acid on bleeding outcomes in women undergoing dilation and evacuation. American Society of Reproductive Medicine Scientific Congress, October 18-20, 2021, Baltimore, MD [oral presentation].
- 15. Pearlman Shapiro M, Termulo K, McAllaster S, Raidoo S. An implementation project to expand access to teledoulas for abortion patients. ACOG 2022 Annual Clinical and Scientific Meeting, May 8, 2022, San Diego, CA [poster presentation]. Abstract
- 16. Pearlman Shapiro M, Riddle C, Maeji K, Soin K. A Novel Gelatin Model for Early Pregnancy Ultrasound Simulation. Society of Teachers of Family Medicine 2022 Annual Spring Conference, April 29-May 4, 2022, Indianapolis, IN [oral presentation]. Abstract
- 17. Raidoo S, Stowers P, Chan K. Virtual Voices: Incorporating Trainees into Telehealth Encounters with Teens. North American Society for Pediatric and Adolescent Gynecology Annual Clinical Research Meeting, April 7, 2022, Chicago, IL [roundtable luncheon presentation].
- 18. Saiki K, Maykin M, Miller C, Sullivan C, Kaneshiro B, Fukuda N, Betty W, Tsai PJ. Race and Preterm Birth in Hawaii. 42nd Annual Pregnancy Meeting, January 31, 2022, virtual [poster presentation]. Abstract.
- 19. Saiki K, Yamasato K, Benny BP, Bartholomew LM, Lee MJ. Gestational Diabetes Stratification According to Body Mass Index in a Multiracial Cohort. Society for Reproductive Investigation 68th Annual Scientific Meeting, July 6, 2021, Boston, MA [poster presentation]. Abstract.
- 20. **Stowers PN**, Heck R, Csiszar K, **Kaneshiro B**. Abortion Stigma and Beliefs in a Just World. Society of Personality and Social Psychology Annual Convention 2022, February 16-19, 2022, San Francisco, CA [poster presentation]. <u>Abstract</u>. Poster.
- 21. Stowers PN, Heck R, Csiszar K, Kaneshiro B. Belief in a Just World and Stigmatizing Views of Early Pregnancy Loss: A National Survey. Society of Maternal Fetal Medicine's 42nd Annual Pregnancy Meeting, January 31-February 5, 2022, virtual [poster presentation]. Abstract. Poster.
- 22. Sullivan C, Mercer E, Huang T, Thompson K, Zalud I, Lee MJ. A Case of Monochorionic-Diamniotic Pregnancy with Differing Phenotypic Sex. Annual

- Integrative Ultrasound Meeting (AIUM), Mar 2022, San Diego, CA [poster presentation]. <u>Abstract</u>. <u>E-poster</u>.
- 23. Sullivan C, Michel A, Fontenot H, Lee MJ. Street Healthcare for Maternity Patients on Oahu. University of Hawaii Annual Biomedical Sciences and Health Disparities Symposium, April 7-8, 2022, Honolulu, HI [poster presentation]. Poster.
- 24. Wright SR, Reid J, Cortessis V, Natavio M, Nguyen BT, Bender N. The "STrIPE" Trial: A randomized control trial comparing oxytocin and misoprostol for management of the placenta after second trimester induction termination. Society of Family Planning 2021 Annual Meeting, October 2, 2021, virtual [oral presentation].

### Past Research Day Guest Speakers

- 2021 **Philip D. Darney, MD, MSc,** Distinguished Professor, Department of Obstetrics, Gynecology & Reproductive Sciences, Bixby Center for Global Reproductive Health, University of California San Francisco, "Disparities in Maternal Mortality: Causes and Cures."
- 2019 **Matthew Barber, MD, MHS,** Chair, Department of Obstetrics and Gynecology, Duke University, Durham, North Carolina, "Innovations in Surgery: Lessons from Urogynecology."
- 2018 **Dev Maulik, MD, PhD**, Senior Associate Dean of Women's Health, Professor & Chair, Department of Obstetrics and Gynecology, University of Kansas, Kansas City, Kansas, *"Fetal Growth Restriction: An Update."*
- 2017 **Eve Espey, MD,** Professor and Chair, Department of Obstetrics and Gynecology, University of New Mexico, Albuquerque, New Mexico, *"Teen Pregnancy Options Counseling ... and Some Contraception Too!"*
- 2016 **Haywood L. Brown, MD, FACOG**, F. Bayward Charter Professor & Chair, Obstetrics and Gynecology Department/Division: Obstetrics/Gynecology/Maternal-Fetal Medicine, Duke University School of Medicine, Durham, North Carolina, "The Obstetric Bundles."
- 2015 **Barbara S. Levy, MD**, Vice President for Health Policy, Advocacy Division at the American College of Obstetricians and Gynecologists (ACOG), Washington, DC, "Vaginal Hysterectomy: Removing the Engine thru the Tailpipe."
- 2014 Daniel M. Breitkopf, MD, Associate Professor & Ob/Gyn Residency Program Director, Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, Minnesota, "Hysteroscopy and Abnormal Uterine Bleeding: What's New?"
- 2013 Aaron B. Caughey, MD, MPA, MPH, PhD, Professor and Chair, Department of Obstetrics and Gynecology, Oregon Health & Science University, Portland, Oregon, "The Cesarean Epidemic: Etiologies, Outcomes, & Potential Solutions."
- 2012 Deborah A. Wing, MD, Professor of Clinical Obstetrics and Gynecology, Director, Division of Maternal-Fetal Medicine and Director, Maternal-Fetal Medicine Fellowship, University of California, Irvine, "Updates in Cervical Ripening and Labor Induction."
- 2011 Andrew Berchuck, MD, Director of Gynecologic Cancer Research, Professor of Gynecologic Oncology, Department of Obstetrics and Gynecology, and Co-Director, Duke Comprehensive Cancer Center Breast/Ovarian Cancer Program, Duke University Medical Center, Durham, North Carolina, "Prospects for individualized Treatment and Prevention of Ovarian Cancer."

### Past Research Day Award Recipients

Santosh S. Sharma, M.D. Resident Research Award [for submission for publication]
2021 Christina Buchanan, MD, "Neonatal Hypoxic Ischemic Encephalopathy and
Planned Home Birth"

**Pamela Estrada, MD,** "Racial and Ethnic Disparities in Intensive Care Admission in a Pregnant and Postpartum Population"

2020 **Jennifer Chin, MD,** "Buffered Lidocaine for Paracervical Blocks in First Trimester Outpatient Surgical Abortions"

**Nikki Kumura, MD,** "Pharmacy Access to Ulipristal Acetate in Small Cities Throughout the United States"

**Caroline Lau, MD,** "Duration of foley catheter cervical ripening as a predictor of total length of labor"

**Jennifer Wong, MD,** "An Investigation on the Completeness of Salpingectomy Intended for Ovarian Cancer Risk Reduction"

2019 **Sally Markee, MD,** "Tumor suppressor gene and mismatch repair protein expression in uterine sarcomas and carcinosarcomas"

**Sally Zhen, MD,** "Pregnant Women's Experiences and Expectations of the Routine Obstetric Screening Ultrasound".

2018 **Nikki Kurata, MD**, "Prolonged Interpregnancy Interval: Essential Nullipara Again?"

### First Place Award

- 2021 **Ingrid Chern, MD,** "Racial/ethnic differences in gestational diabetes and the association with maternal and neonatal outcomes among women in Hawai'i"
- 2020 **Sharareh Firouzbakht, MD,** "Abortion knowledge affecting abortion provision after obstetrics and gynecology residency"
- 2019 **Jennifer Chin, MD,** "Buffered lidocaine for paracervical blocks in first trimester outpatient surgical abortions"
- 2018 **Meryl Ueno, MD**, "Association between Second Trimester Maternal Serum Analytes and Gestational Diabetes"
- 2017 **Charlie Wang, MD**, "Utility of Routine Collection of Chlamydia and Gonorrhea in Antepartum Patients"

### Honorable Mention:

**Nicole Kurata, MD**, "Prolonged Interpregnancy Interval: Essential Nullipara Again?"

- **Sara C. Harris, MD**, "Levonorgestrel Intrauterine Device Expulsion in Patients with Abnormal Uterine Bleeding"
- **Melissa Kuwahara, MD**, "Interpregnancy Interval and Subsequent Pregnancy Outcomes after Dilation and Evaluation"

### Audience Choice Award

- **Ingrid Chern, MD,** "Racial/ethnic differences in gestational diabetes and the association with maternal and neonatal outcomes among women in Hawai'i"
- **Christina Buchanan, MD,** "Neonatal Hypoxic Ischemic Encephalopathy and Planned Home Birth"
- **Jennifer Chin, MD,** "Buffered lidocaine for paracervical blocks in first trimester outpatient surgical abortions"
- **Meryl Ueno, MD**, "Association between Second Trimester Maternal Serum Analytes and Gestational Diabetes"
- **Charlie Wang, MD**, "Utility of Routine Collection of Chlamydia and Gonorrhea in Antepartum Patients"
- **Sara C. Harris, MD**, "Levonorgestrel Intrauterine Device Expulsion in Patients with Abnormal Uterine Bleeding"
  - **P. Gordon McLemore, Jr, MD**, "Utilization of Abdominal Circumference (AC) Measurement in Fetal Biometry in the Late Second and Early Third Trimesters in the Prediction of Small for Gestational Age (SGA) Infants"
- **Holly Bullock, MD**, "Access to Ulipristal Acetate in Hawaii: Is a Prescription Enough?"

### Past Research Day Honorees

Thomas Kosasa, MD

2020 All of Hawai'i's obstetrician-gynecologists who are on the COVID-19 frontlines

2019 Tricia Wright, MD

2018 Bliss Kaneshiro, MD, MPH

2017 Tod Aeby, MD, MEd

2016 Santosh Sharma, MD

2015 50th Anniversary of the John A. Burns School of Medicine

