Duke Obstetrics & Gynecology

Duke University School of Medicine

Spring 2025

Research. Education. Patient Care. DUKE OBSTETRICS & GYNECOLOGY

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Duke Regional Hospital and Duke University Hospital earned recognition as Best Hospitals for Maternity Care (Uncomplicated Pregnancy) for 2024. Duke Ob/Gyn has earned a top spot in the 2024-2025 U.S. News & World Report Best Hospital

rankings — number 11 among all obstetrics and gynecology hospitals in the nation (Duke University Hospital).

In this photo:

Duke Ob/Gyn's Global Health elective program is a four-tosix week clinical experience at Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Tanzania.

Time in Tanzania is filled with lectures, outpatient and inpatient experiences, a reproductive health clinic, cervical cancer screening clinic and high surgical volume.

Pictured, far right: Education Chief Resid

Education Chief Resident **Jenny Wu, MD**, at KCMC

Visit obgyn.duke.edu

mission

Deliver better health and hope to all women and their families through compassionate care, innovation, education and discovery

vision

Set the global standard of excellence and lead the future of women's health care

core values

Excellence Integrity Innovation Diversity and Inclusion Teamwork Continuous Improvement Community Advocacy

on the cover:

Reproductive endocrinology and infertility specialists **Sarah Moustafa**, **MD**, and **Steven Young**, **MD**, **PhD**, evaluate a hysterosalpingogram at Duke Fertility Center. Duke Fertility Center continues to have excellent rates that outpace the national average. The Society for Assisted Reproductive Technology (SART) compiles success rates from clinics around the country. Read about state-of-theart technology integrated at the center on page 12.

Message from the Chair

We are living in a fast-paced world, with an overwhelming amount of information at our fingertips.

How do we streamline what we need to know, and how to apply it?

Can we exercise cautious optimism while at the same time embrace the capabilities that artificial intelligence (AI) provides?

Importantly, how can we use AI to our advantage from bench to bedside?

In this issue, we share how AI in the clinical setting is enhancing both the provider and patient experience. Leveraging AI and clinical expertise to streamline care coordination is changing health care as we know it. See page 9.

We are using data and data science to achieve projectspecific goals in women's health through our Center for Women's Health Data Science and our Quality and Safety in Women's Health fellowship.

Fellow **Joseph Lafferty, MD**, supported by the department's quality and data science teams, has embarked on a data-driven project with the goal of contributing to a cleaner world by reducing the carbon footprint of ob/gyns not only at Duke — but globally. How? By evaluating data on the impact of plastic versus metal speculums and working toward transitioning away from single-use devices. See page 5.

We are using technology to give patients peace of mind — specifically in the field of reproductive endocrinology and infertility. Duke Fertility Center is proud to have successful pregnancy and live birth rates that exceed the national average.

The center has a state-of-the-art College of American Pathologists-certified in vitro fertilization lab, and a Clinical Laboratory Improvement Amendments-certified andrology and hormone assay lab. The lab workflow includes radiofrequency identification to track and record every step of the assisted reproductive process, ensuring that samples are correctly identified and handled with the utmost precision. See page 12.

We are offering hope to cancer patients through compassionate care, clinical trials and innovation. Gynecologic oncologist **Angeles Alvarez Secord**, **MD**, **MHSc**, shared new data on the future of ovarian and endometrial cancer treatment at recent international and national meetings and educational forums. See page 3.

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"This is seismic. Think of a car being built. The direct portion of any NIH grant goes toward the car components, but the indirect payments pay for the assembly line — the facilities, the specialty equipment, the IT structures, and the people.

The F&A payments are essential; they are required to do the work."

-- Colin S. Duckett, PhD, Executive Vice Dean for Basic & Preclinical Science, Duke University School of Medicine, on the devastating effects of the NIH's cap on indirect grant payments.

Dr. Secord is steadfast in her commitment to improving outcomes in patients with cancer and other under researched conditions. She was appointed to the National Academies of Sciences, Engineering and Medicine (NASEM) committee that assessed National Institutes of Health (NIH) research on women's health and worked on its recently released report. Gaps in the understanding of women's health research across all NIH Institutes and centers were identified.

At top of mind for all of us is the future of research funding. The uncertainty facing institutions throughout the nation is profound. However, we are unwavering in emphasizing the importance of persevering with our work — aware that funding not just for research, but also clinical care, is threatened. This makes the work we do all the more important because one thing that will not change is the needs of our patients and community. We are making a difference, and we are resolute in continuing to do so. But we are realistic that changes may be on the horizon.

I'm proud of the work our department has embarked upon over the past year, and what lies ahead. It is truly a testament to outstanding achievements in our field.



Matthew D. Barber, MD, MHS

W. Allen Addison, MD, Distinguished Professor Chair, Department of Obstetrics and Gynecology Interim Sr. Vice President, Duke Health Integrated Practice

Research

Duke Physician Highlights Positive Ovarian Cancer Clinical Trial Results

BY SHANTELL KIRKENDOLL, SENIOR SCIENCE WRITER AND MANAGING EDITOR, DUKE UNIVERSITY SCHOOL OF MEDICINE



ngeles Alvarez Secord, MD, MHSc, a gynecologic oncologist at Duke Health, shared encouraging new data on ovarian cancer treatment at the European Society for Medical Oncology (ESMO) meeting on Sept. 15, 2024, in Barcelona, Spain.

She was principal investigator of the PICCOLO trial, which tested mirvetuximab soravtansine (MIRV) for a particular form of cancer known as platinum-sensitive ovarian cancer (PSOC). The study focused on patients with high levels of a protein called folate receptor alpha (FRq).

The results were promising: over half of the patients in the phase II trial saw their cancer shrink or disappear, with an overall response rate of 51.9%. The treatment's duration of response lasted an average of 8.25 months.

MIRV was approved by the U.S. Food and Drug Administration in 2023 for the treatment of platinumresistant ovarian cancer (PROC). The drug is currently undergoing evaluation for approval in Europe, potentially expanding access to patients globally.

At previous national and international annual meetings for ESMO, the International Gynecologic Cancer Society (IGCS), the American Society of Clinical Oncology (ASCO) and the Society of Gynecologic Oncology (SGO), the following background information was provided during the PICCOLO abstract presentation:

- There is no generally accepted standard of care with a clear efficacy benchmark based on prospective trials in third-line or later patients with platinumsensitive ovarian cancer (PSOC)
- MIRV has encouraging activity as a monotherapy in platinum-resistant ovarian cancer (PROC) in patients whose tumors express high levels of FRα



Platinum-based chemotherapy can become less effective over time, and patients may experience severe side effects. MIRV offers a potentially more effective and less toxic treatment option." — ANGELES ALVAREZ SECORD, MD, MHSC

Dr. Secord highlighted a major challenge faced by patients: those who take PARP inhibitors (PARPi), a type of maintenance treatment used after chemotherapy to keep cancer from coming back, tend to respond less to next-line treatments. This is especially true for treatment plans that use platinum-based drugs.

MIRV, however, has shown promise even in this difficultto-treat population, providing a much-needed option for patients with few effective alternatives left.

Response rates were over 70% for those patients who have *BRCA* mutations or had not received a prior PARPi. For patients whose cancer worsened after taking PARP inhibitors, the treatment still showed positive results, with a 45.8% response rate. On average, the benefits lasted more than seven months.

The PICCOLO trial also tested how safe and effective MIRV is for patients and found that most patients handled the drug well. Common side effects included neurosensory issues, gastrointestinal problems, dry eye and blurred vision, but trial data indicated that these were mostly mild and resolved over time.

The unique composition of MIRV is considered key to its effectiveness. The drug is designed to target FRα, a protein commonly found on the surface of ovarian cancer cells. Once attached, a cleavable linker releases a potent cancer-killing agent, DM4, which interferes with the cancer cells' ability to divide and spread. This targeted approach allows MIRV to zero in on cancer cells while sparing healthy ones, offering a strategic advantage over traditional chemotherapies that can affect both.

About 20,000 women in the United States will have a new diagnosis of ovarian cancer this year, according to the American Cancer Society. Diagnoses have been slowly falling over the past few decades. Fewer women are dying of ovarian cancer as well, likely due to better treatments and fewer women being diagnosed. MIRV is an antibody-drug conjugate (ADC) that combines an antibody that targets cancer cells with a potent anti-cancer drug. It is the first FDA-approved ADC for ovarian cancer and the only new therapy specifically for PROC.

Reference: duke.is/ACSKeyStatisticsOvarianCancer

Targeting Endometrial Cancer

At the June 6, 2024, SGO Virtual Congressional Briefing on Endometrial Cancer, Dr. Secord addressed endometrial cancer, the critical need for additional research and efforts for prevention and early diagnosis of women's cancers.

The program also focused on the state of cancer care and the Department of Defense Ovarian Cancer Research Program. Noted was a decline in ovarian cancer cases and mortality. Of importance was the alarming rise in cases and deaths related to endometrial cancer.

In 2024, reporting shows for the first time, <u>more women</u> in the U.S. are dying of uterine cancer compared to ovarian cancers, specifically in younger populations.

Dr. Secord and colleagues addressed barriers to finding treatment and curing endometrial cancer, citing underfunding and lack of prioritization. Testing that does not cause significant discomfort for patients, newer treatments, why patients have relapse (even when promising regimens have been administered) and determining mechanisms for resistance need to be the focus. Access to care and the ability to participate in clinical trials are key and need to be addressed.

"There are only four FDA-approved drugs specifically for endometrial cancer since 1971. That is not acceptable," Dr. Secord stated when specifying why progress has not been made to conquer this disease.

Since the congressional briefing, there have been several Food and Drug Administration-approved immunotherapy agents in combination with chemotherapy for patients with primary advanced or recurrent endometrial carcinoma.



Dr. Angeles Alvarez Secord speaks with endometrial cancer patient Lynn Bare at the Duke Cancer Institute, discussing her care as part of the multicenter study <u>RUBY</u> clinical trial for recurrent or primary advanced endometrial cancer.



Endometrial Cancer Consortium Expands to 25 Sites in the U.S.

With the initial support of the Kay Yow "Cancers that Affect Women" grant in 2019, Dr. Secord and Duke Cancer Institute established an <u>Endometrial Cancer</u> <u>Consortium</u> that now includes 25 sites across the country. The consortium has expanded research capabilities by harnessing information about endometrial cancer, the tumor makeup on a molecular level, what helps endometrial cancers grow and treatment outcomes. With this information, researchers hope to identify the right targeted therapy to use for treatment based on the tumor makeup and provide individualized care for patients.

The work of the consortium has resulted in six community awareness events, 15 abstract presentations, three nationally recognized awards and three subsequent research grants.

Education

Reducing Waste, Embracing Sustainability: Quality and Safety in Women's Health Applied

BY JANE BLACK

Duke Ob/Gyn is taking a significant step toward environmental sustainability by setting a goal to help reduce its carbon footprint. One way the department aims to achieve this is by lowering the number of plastic speculums used monthly in outpatient clinics from 630 to 315 by Jan. 1, 2026. This initiative is part of the department's broader commitment to raising awareness about the importance of being a thought leader in creating environmentally sustainable health systems.

In 2024, Duke Ob/Gyn used over 7,000 plastic speculums, which translates to 6,402 kg of

Pictured:

Quality and Safety in Women's Health Fellow Joseph Lafferty, MD carbon dioxide equivalents per year. By eliminating the use of plastic speculums and transitioning to metal speculums, the department aims to save the equivalent of 355 trees annually. This effort is crucial, as the U.S. health care system significantly contributes to per capita health care-related greenhouse emissions. Specifically, 7% of greenhouse emissions are attributed to medical devices and supplies in the health care setting. By making green choices, starting with phasing out plastic speculums, ob/gyns can play a pivotal role in reducing the use of disposable medical supplies.

"Plastic speculums are not only made of plastic, but are also wrapped in plastic packaging, often contain LED lights and batteries and are discarded after a single use," said **Joseph Lafferty, MD**, Quality and Safety in Women's Health fellow. "This practice contributes significantly to environmental pollution. Studies cited in the *American Journal of Obstetrics and Gynecology* have shown that stainless steel speculums have a lesser carbon footprint over multiple model scenarios compared to disposable plastic speculums, with no significant difference in clinical utility. Additionally, patient comfort feedback studies have indicated that there is no substantial preference for plastic speculums over reusable ones."

Environmental sustainability has been designated as a departmental priority by Duke Ob/Gyn leadership.

A multidisciplinary team, including physicians, nurses, medical assistants, infection prevention and sterile processing staff, has been assembled to tackle this issue. The team has developed a well-defined problem statement: "Duke University Health System Obstetrics and Gynecology clinics use large amounts of disposable plastic speculums despite the availability of more ecofriendly alternatives."

The project emphasizes the importance of compliance with infection prevention standards and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) regulations as drivers for change.

References:

<u>American Journal of Obstetrics and Gynecology</u> (August 2020): A comparative carbon footprint analysis of disposable and reusable vaginal specula

<u>British Journal of Obstetrics and Gynaecology</u> (December 2023): Patient preferences for disposable and reusable vaginal specula and their willingness to compromise in the era of climate change: A cross-sectional study

"The current state of the process involves significant use of disposable plastic speculums, while the future state aims to transition to reusable metal speculums. This transition will involve regular meetings with team members and stakeholders, process implementation and larger-scale roll-out at additional sites once initial troubleshooting is complete.

— JOSEPH LAFFERTY, MD

GLOBAL HEALTH The Promise of Self-Testing to Prevent Cervical Cancer

BY ALICIA BANKS, DUKE GLOBAL HEALTH INSTITUTE

Use of a mobile health app developed by Duke researchers and students is expanding in Kenya, allowing more women to screen themselves for the virus that causes cervical cancer.

When **Megan Huchko**, **MD**, **MPH**, Duke Ob/Gyn faculty, Hollier Family Associate Professor of Global Health at the Duke Global Health Institute and director of DGHI's Center for Global Reproductive Health, began working in Kenya nearly two decades ago, she realized that one of the biggest barriers for women to be screened for cervical cancer was not necessarily the test itself, but where it took place.

She and her team have been working to change that with a mobile health app called mSaada, which allows community health volunteers (CHVs) to facilitate cervical cancer screenings at women's homes. Launched in 2019, the app has been tested in Kisumu County, home to more than 1 million people. Since the launch of the app, around 25,000 women have been screened for human papillomavirus (HPV) — which if untreated can cause cervical cancer.



A group of women listen to education about cervical cancer and screening from a CHV at a health fair in the Gem Sub-County, outside of Kisumu, in Siaya County earlier this year. Credit: Dr. Megan Huchko

"Allowing women to screen via self-collection so they avoid a pelvic exam and have more time for a personalized, accurate screening is women-centered," said Dr. Huchko. "It's really great to see this technology in this county."



Read the full article: <u>duke.is/mSaada</u>

Resident Experience: Global Health Research

As part of her residency research, **Nguyên Thảo Thị Nguyễn (Thao), MD**, collected data and studied the mSaada app (study period: Oct. 2023 to June 2024).

I became interested in gaining a global perspective on cervical cancer disparities through stories from my mother about life in rural Vietnam, where limited access to health care meant that preventable



diseases often went untreated, leading to unnecessary suffering and loss. This deeply resonated with me as I learned about the stark disparities in cervical cancer rates between the Global North and South, largely driven by differences in access to screening and HPV vaccination. The long latency period between HPV infection and cervical cancer offers a unique opportunity for intervention, which inspires me to work toward reducing these disparities through innovative solutions.

Recognizing diverse approaches to screening and treating cervical dysplasia is essential for adapting interventions to the specific challenges of low-resource settings. In these areas, barriers to receiving results and attending follow-up appointments become significant obstacles to completing the cervical cancer screening cascade. Tailoring approaches ensures that screening programs are not only effective but also practical and accessible within the constraints of the setting. Cultural norms further shape how care is accessed and accepted, which should be taken into account to ensure that screening strategies are culturally appropriate."



Patient Care



Read the full article: <u>Clinical Practice Today</u>



Comprehensive Placenta Accreta Care Program Achieves Superior Outcomes

BY NICOLE JABLONSKI, DUKE HEALTH CLINICAL PRACTICE TODAY

ennifer Gilner, MD, PhD, maternal-fetal medicine specialist, has led Duke's Placenta Accreta Care Program since 2016. Today, it's the most comprehensive program of its kind in North Carolina. The multidisciplinary team's evidence-based screening and treatment protocols have fostered a destination program with superior patient outcomes.

"Getting an accurate placenta accreta spectrum (PAS) diagnosis as early as possible allows us to risk-stratify the patient and create a customized care plan that reduces serious risks to mother and baby at the time of delivery," said Dr. Gilner.

Risk Factors and Screening

Nationally, between 40 and 50% of accreta spectrum cases are not suspected, which leads to more bleeding and other complications at delivery. "The greatest opportunity for impact is recognizing patients' risk factors and referring for screening with specialized imaging by

continued on next page

When To Refer for PAS Screening

Clinical Risk Factors

- Placenta previa with a history of uterine surgery, such as a cesarean or D&C
- Persistent 26-30 week placenta previa, low-lying placenta or any placental tissue overlying prior uterine scar
- Placenta overlying other site of intrauterine surgery
- Prior clinical suspicion of focal accreta or history of Asherman's

Ultrasound Findings

- Gestational sac located low in the uterus in the first trimester (particularly with prior uterine surgery)
- Placenta previa with prior uterine surgery
- Mid-trimester low-lying placenta with prior history of cesarean
- Mid-trimester placenta with significant lacunae, particularly within the maternal side of the placenta

Referral to Duke's Placenta Accreta Care Program: **919-613-6863.**

It's widely published that delivery at a prepared center with an experienced team improves outcomes. We routinely get referrals from Georgia, Virginia, all over North Carolina and states even farther away." — JENNIFER GILNER, MD, PHD

26 weeks. Patients have significantly better outcomes if we monitor them and plan ahead," said Dr. Gilner.

Major risk factors for developing an abnormal relationship between the uterine lining and the placenta include:

- Having placenta growth near a prior uterine scar, most commonly from a prior cesarean
- Any placenta growth in an abnormal location (e.g., previa) or near an area of prior uterine procedure (e.g., cesarean, hysteroscopy or D&C)

"If patients' first or second trimester routine ultrasounds reveals a placenta low in the uterus, or near or covering the cervix, and they've had prior uterine surgeries, we strongly recommend referring to us for a consultative ultrasound," said Dr. Gilner.

Dr. Gilner helped develop an evidence-based protocol for diagnostic ultrasounds at Duke. "This ultrasound takes more time; it captures images and specialized views that wouldn't be part of a standard anatomy ultrasound," said Dr. Gilner.

Superior Outcomes

Duke's Placenta Accreta Care Program achieves lower severe maternal morbidity rates compared to national averages, including blood loss and likelihood of transfusion. The national rate for hemorrhage that requires transfusion is 46.9%, while Duke's published rate of transfusion for scheduled delivery cases is 14.8%. Considering that 30 to 40% of patients with accreta require urgent or unscheduled delivery prior to their intended delivery date, it's important for care teams to have standardized systems and mobilize quickly. "Our specialists are available 24/7."

References:

American Journal of Obstetrics and Gynecology (9.2019) Best Practice & Research Clinical Obstetrics & Gynaecology (4.2021) American Journal of Obstetrics and Gynecology MFM (10.2024)

Duke Health, Abridge Partner to Improve Clinician Efficiency and Patient Care

BY SARAH AVERY, DUKE HEALTH NEWS & MEDIA



Duke Health and Abridge, a developer of generative AI for clinical conversations, have established a strategic partnership to collaboratively explore new health care artificial intelligence (AI) innovations.

As a component of this partnership, Duke Health has implemented Abridge's AI-powered clinical documentation platform to key clinical teams. The Abridge real-time ambient AI platform will be available to 5,000 Duke Health clinicians at more than 150 primary and specialty clinics.

The platform will be used throughout Duke Health Integrated Practice and Duke Primary Care clinics, which serve communities in the Triangle and other locations in North Carolina. It will enable clinicians to integrate notes into patients' medical records during visits, enhancing the experience for both patients and providers.

"Duke Health is one of the most innovative and forwardthinking health care systems," said **Shiv Rao, MD**,

Credit: Image created with the assistance of Microsoft 365 Copilot

founder and CEO of Abridge. "This collaboration will accelerate our innovations to power deeper understanding in health care by unlocking the value in clinical conversations across additional use cases."

Abridge's technology assists in the note taking process by providing Al-generated documentation of the conversation between patient and clinician during the appointment. Clinicians review the notes and can edit them before they are integrated into the patient record.

The AI platform is designed to help alleviate burnout by reducing the time clinicians spend on documentation. More than 50% of physicians surveyed by the American Medical Association reported feeling a great deal of stress in their jobs, with more than 12% citing too many administrative tasks.

In addition to implementing the clinical notes platform, Duke is exploring opportunities with Abridge to codevelop other clinical applications that use ambient AI. As a leading academic medical center, the drive to improve patient care is part of Duke Health's DNA. With this platform at our disposal, our clinicians are able to focus more fully on patients and less on documentation, restoring what the patient-clinician relationship is supposed to be about. Their time together will be more productive, more satisfying and more human." — MATTHEW D. BARBER, MD, MHS

"Duke Health is furthering its legacy of innovation and Al leadership through this new partnership with Abridge," said **Jeffrey Ferranti, MD**, senior vice president and chief digital officer of Duke University Health System. "Our clinical expertise partnered with Abridge's Al capabilities will lead to some truly impactful Al solutions. Al documentation will undoubtedly enhance clinicianpatient interactions, but it is only the beginning of what this partnership can achieve."

Reference: duke.is/AMABurnoutRate

Early Adopters

Ob/gyns explain how embracing Abridge Al Scribe has 'bridged the gap' in time management and efficiency

n the fall of 2024, Duke Ob/Gyn was among the first departments in the Duke University Health System to begin using Abridge's AI Scribe. The goals: to improve the experience of both providers and patients by reducing the documentation burden and allowing clinicians more time of focus on patients.

Q: What was the adoption process? How easy was it to begin using?

Dr. Kawasaki: I attended one general training session — a 30-minute presentation covering how to use the software and how to prepare my notes to receive the information. Because of my personal interest in technology, I also attended one of the "drop-in" sessions where an Abridge representative was fielding questions. I found it to be very intuitive and using this has integrated easily into my workflow.



Clayton Alfonso, MD | Generalist Amie Kawasaki, MD | Urogynecologist Alejandro Landa, MD | Generalist Nazema Siddiqui, MD, MHSc | Urogynecologist

Dr. Alfonso: The software is very straightforward to use and only required me to remember to bring my phone into the clinical encounters, which was new for me. I had to adapt to speaking the physical exam out loud to allow for the software to know what to document.

What were the challenges?

Dr. Siddiqui: The biggest challenge was the mental commitment to just start using it, and the few small changes in workflow. I did not set aside a lot of time



to learn, and at first, I thought that would be a barrier — but it really wasn't. Moving forward, my biggest challenge will be how to integrate this technology when I also have learners in the clinic with me (usually they write the notes).

How has Abridge AI Scribe impacted your workflow?

Dr. Siddiqui: It has affected me in two ways. It has reduced the time I spend after clinic documenting on patient encounters. This is especially true for complex patients, those with a lot of data from outside our electronic medical record upon arrival (tests, imaging, etc.) and complicated return visits. These visit types are not as easy to enter into our templated notes. Al Scribe helps particularly well with summarizing the history of present illness, and also summarizing test results when I'm reading outside records (so I don't have to type them). Additionally, the after-visit summary information is amazing! It summarizes in really patient-friendly language with distinct instructions for the patient.

Dr. Landa: Abridge definitely has allowed me to concentrate much more on the patient communication and information gathering. I'm able to be more patient and interrupt less. I'm able to listen more without

worrying about visit times. It has allowed me to complete all the documentation in the same day, without staying late. I think the quality of the notes is better overall.

How do you feel it has affected your clinical stresses or ability to spend more time with patients?

Dr. Kawasaki: This has been instrumental to leading to timely closure of my notes and my patients are getting more detailed information that is personalized. Not only that, but I am free to converse with my patients and provide recommendations while looking at them and their family members in the eyes. This has improved my connection with patients.

Dr. Siddiqui: I didn't realize before how much mental energy it took when I was multitasking (listening to patients, trying to make periodic eye-to-eye contact and writing notes all at the same time). Previously, I don't think I realized the mental "tax" as it was happening. The

biggest difference I noticed was that I was really able to focus on the patient. This felt very freeing.

Dr. Alfonso: It has decreased stress overall. I feel less rushed to leave the patient room — thus spending more time with the patients, which I think patients will like overall.

How has your overall well-being been affected?

Dr. Kawasaki: I feel less stressed about completing notes in a timely manner, and my pace has become less frenzied. I'm still busy — just not chaotic.

Dr. Landa: I definitely can tell that decreasing stress and worries about finishing notes on time has some impact on burnout. Notes and documentation are only a portion of physician burnout, but this definitely helps to cope with it and decrease it.

How do you see it impacting education and how trainees are prepared as they enter the workforce as clinicians?

Dr. Landa: I think that it allows me to spend more time talking to students and learners. I think that students and learners should still be able to formulate notes, and we can integrate this technology into it.

Accuracy. Efficiency. Transparency. Trust.

RFID Technology Helps Offer Patients Peace of Mind

At Duke Fertility Center, the integration of the RI Witness[™] platform marks a significant advancement in the safety and efficiency of fertility treatments. This state-of-the-art technology utilizes radiofrequency identification (RFID) to ensure the highest standards of care.

Enhanced Safety and Accuracy SAMPLE IDENTIFICATION AND TRACKING:

RFID Technology: Each patient's samples are tagged with unique RFID chips, allowing for real-time tracking throughout the laboratory process.

Error Prevention: The system automatically alerts staff to any mismatches or potential errors, ensuring that only the correct samples are used.

COMPREHENSIVE MONITORING:

Continuous Oversight: The RI Witness system continuously monitors the handling and movement of samples, reducing the risk of human error.

Audit Trail: The platform creates a detailed audit trail for each sample, documenting every step from collection to transfer.

Improved Efficiency STREAMLINED PROCESSES:

Automated Tracking: The automated nature of the RI Witness platform reduces the need for manual checks and documentation, allowing laboratory staff to focus more on patient care.

Time-Saving: By minimizing the potential for errors and streamlining verification processes, the platform enhances overall laboratory efficiency.

SIMPLIFIED WORKFLOW:

Integrated System: The RI Witness platform integrates seamlessly with existing laboratory workflows, making it easy for staff to adopt and utilize.

User-Friendly Interface: The platform's intuitive interface simplifies the process of monitoring and tracking samples, ensuring that staff can quickly and accurately manage their tasks.

Increased Transparency and Trust PATIENT CONFIDENCE:

Peace of Mind: Patients can be assured that their samples are being monitored with advanced

technology, providing them with greater peace of mind during their treatment.

Clear Communication: The detailed records and audit trails generated by the platform allow for clear and transparent communication with patients regarding the handling of their samples.

DETAILED REPORTING:

Comprehensive Reports: The RI Witness platform generates detailed reports on the status and handling of each sample, which can be shared with patients to build trust and transparency.

Regulatory Compliance: The platform helps ensure compliance with regulatory standards, providing additional reassurance to patients and stakeholders.



of the Assisted Reproductive Technology Laboratories at Duke Fertility Center, in the embryology lab. His research focuses on gamete, embryo and reproductive tissue biology.

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Awards & Newsmakers



Kuller Appointed to SMFM Committee, *Pregnancy* Editorial Board

Maternal-fetal medicine specialist Jeffrey Kuller, MD, has been appointed to the Society for Maternal-Fetal Medicine Document

Review Committee and the *Pregnancy* editorial board. Dr. Kuller previously was a member of the SMFM Publications Committee, serving for nine years, including four as vice chair and three as chair of the committee.

Duke CTSI Study Examines Pregnancy-Related Morbidity at Duke and UNC



Maternal-fetal medicine specialist Jeff Federspiel, MD, PhD, is a coinvestigator in a <u>new case study</u> published by the Duke Clinical and Translational Science Institute (CTSI) that examines maternal morbidity risk factors and trends at Duke

University and the University of North Carolina at Chapel Hill. Maternal morbidity and mortality rates in the U.S. have more than doubled in the past 30 years, exceeding other high-income nations. This research determines the severe maternal morbidity rate at Duke and UNC and examines racial and ethnic disparities within those morbidity events.



Gynecologic Oncology Fellow Receives Pitkin Award

In May 2024, **Mary Katherine Anastasio, MD**, was the recipient of the 2023 Roy M. Pitkin Award as first author of one of the best papers published in 2023 in *Obstetrics &*

Gynecology (The Green Journal): "<u>Cryocompression to</u>reduce peripheral neuropathy in gynecologic cancer: a randomized controlled trial." She and colleagues are following up with another study to further define the efficacy of cryocompression to prevent chemotherapyinduced peripheral neuropathy. Faculty **Laura Havrilesky**, **MD**, **MHSc**, is senior author, and **Haley Moss**, **MD**, **MBA**, is co-author.

Duke-NCCU Research in Women's Health Extended

Friederike Jayes, DVM, PhD, and North Carolina Central University collaborator **Darlene Taylor, PhD**, have had their study award extended to continue <u>innovative</u> <u>biomedical research in women's health</u>. Their work tackles a prevalent women's health issue: developing a novel, minimally invasive treatment for uterine fibroids as an alternative to surgery. Their technology is based



on delivering a highly purified enzyme (collagenase) using a breakthrough injectable hydrogel-copolymer called LiquoGel[™] that allows delivery of a high drug payload.

RESEARCH HIGHLIGHTS

Best Surgical Video, Best Basic Science Paper, Recognized at PFD Week



Resident **Janice Wong, MD, MS**, who matched at the University of California San Diego for fellowship in urogynecology and reconstructive pelvic surgery (URPS), won the Best Surgical Video Award from the American Urogynecologic Society (AUGS) for her video titled "A Complex Reconstructive

Approach to Vaginal Scarring and Urethral Intercourse." In the video, co-created by former URPS fellow Alejandro Gómez-Viso, MD, and mentored by faculty Cassandra Kisby, MD, MS, Dr. Wong demonstrates several pelvic reconstructive techniques that can be utilized for patients with aberrant anatomy due to trauma and congenital anatomic differences.



Dr. Kisby (left), faculty Cindy Amundsen, MD (right), and Duke Orthopaedic Surgery/Duke Biomedical Engineering colleague Shyni Varghese, PhD's research paper,

"Exosomes for Prevention of Mesh Complications in a Porcine Sacrocolpopexy Model," was selected for the Best Basic Science Paper Award. The paper was submitted to *Nature Partner Journals Regenerative Medicine*. The awards were presented at AUGS Pelvic Floor Disorders Week in Washington, District of Columbia, Oct. 22-25, 2024.



'Green Room' Features Resident's Work

Education Chief Resident **Jenny Wu, MD**, first author of "Transcutaneous Electric Nerve Stimulation for Analgesia During Outpatient Endometrial Biopsy: A Randomized Controlled Trial," was interviewed for the "Green Room Podcast" about her research. She discussed novel ways to address pain during gynecologic procedures, which was her resident research project presented at the 2024 Charles B. Hammond, MD, Research Day (first place resident winner, mentored by **Laura Havrilesky, MD, MHSc**). Dr. Wu is also an ACOG junior fellow. Additionally, the editorial by urogynecologist **Nazema Siddiqui, MD, MHSc**, titled "Urinary Tract Infections, An Age-Old Problem that Demands New Solutions," is highlighted on the podcast.

'Outlawed' Reaches 35,000 Downloads

Beverly Gray, MD, and **Jonas Swartz, MD**, **MPH**, cohost "<u>Outlawed</u>," a podcast on the science and stories of abortion. It has reached 35,000 downloads, putting it in the top 1.5% of podcasts, and was recently ranked 28th overall in Apple Podcast's Top Society & Culture category. Duke Bass Connections has awarded Drs. Gray and Swartz, and **Wesley Hogan**, **PhD**, research professor with the Franklin Humanities Institute and

continued from page 13

Dr. Amundsen also serves as an investigator in the OASIS trial to evaluate urgency urinary incontinence (UUI), and presented new data at AUGS/PFD Week 2024. The two-year data from the OASIS trial indicate that an implantable tibial neuromodulation system for UUI shows sustained efficacy, with 79% of participants responding to therapy and 56% experiencing at least a 75% reduction in UUI episodes. High patient satisfaction was reported, with 97% of patients expressing satisfaction and 80% feeling significantly improved at the two-year follow-up.

UrogynCREST Program Earns Renewal Award

Dr. Amundsen, principal investigator and program director of the American Urogynecologic Society (AUGS)/Duke Urogynecology Clinical Research Educational Scientist Training (UrogynCREST) Program; **Eric Jelovsek**, **MD**, **MMEd**, **MSDS**, Duke Ob/Gyn's director of data science for women's health; and **Rebecca Kameny**, **PhD**, research program leader, were awarded \$790,000 over five years by the National Institute of Health's Eunice Kennedy Shriver National Institute of Child Health and Human Development (NIH/NICHD). This program has supported 18 early-career researchers and is a creative multidisciplinary, multi-institutional educational initiative considered unprecedented in the field of urogynecology, noted Dr. Amundsen. History, \$40,000 for continuation of the work on "Reproductive Health Post-Roe," which includes the podcast project. This team has been collaborating with Duke graduate and undergraduate students to document the stories that abortion care providers have been experiencing since Spring 2023.

'Live Yes! With Arthritis' Discusses Menopause

Anne Ford, MD, is featured in the episode "<u>Surviving</u> <u>Menopause With Arthritis</u>." Dr. Ford and colleague Jocelyn Wittstein, MD, of Duke's Department of



Orthopaedic Surgery, are collaborating to address the pivotal role hormones play in women's well-being — driven by a gap in knowledge about the effects of hormone therapy (HT) on the body's joints. Their objective is to create a

registry containing survey data collected on menstrual status, menopausal symptoms, joint pain and locations, and whether patients are using HT for their symptoms and dosage. This data will be crucial in evaluating the use of HT in patients with menopausal arthritis and other musculoskeletal conditions affecting peri- and postmenopausal women. Through support by a grant from The Forum: Women in Sports Medicine, and a Hammond Research Fund award for the project titled "Surveillance of Joint Pain in Menopause: Pilot Registry," their work continues. Their project was highlighted in the Summer 2024 edition of the Arthritis Foundation's *Joint Matters* newsletter.

BIRCWH Program Awarded NIH Funding

The Duke/NCCU K12 Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Career Development Program was recently awarded an additional \$317,000 by the NIH for the program's underrepresented minority scholar and the postdoctorate trainee to continue their research and training. With over 24 years of continuous funding, the BIRCWH Program is committed to providing individuals from diverse scientific and academic backgrounds with opportunities that will enable them to have successful careers in women's health research.



Wheeler Awarded R01 Grant to Study Interventions to Improve Maternal, Infant Health

Maternal-fetal medicine specialist **Sarahn** Wheeler, MD, MHSc, has been awarded a \$3.16 million R01 grant titled "PROMOTE and TEACH Equity." Dr. Wheeler noted, "We will test

the efficacy of an intervention designed to improve maternal and infant health by empowering clinicians with skills to enhance patients' access to continued gainful employment and accommodation to ensure a safe working environment during pregnancy."

Patient Recruitment for TULIP Study Underway

Duke University, a clinical site for the National Institutes of Health (NIH) Pelvic Floor Disorders Network (PFDN), is currently enrolling patients in a clinical trial to compare three first-line treatments for postpartum urinary incontinence the TULIP study (Training for Urinary Leakage Improvement after Pregnancy). Principal investigator is **Nazema Siddiqui**, **MD**, **MHSc**. Dr. Siddiqui also is the PI for the <u>Duke Urogenital</u> <u>Microbiome Research Program (Ur-BIOME)</u>.

Reproductive Sciences Faculty Studies Effect of 'Forever Chemicals' on Embryo Development

Research by Liping Feng, MD, published in Nature Communications describes how three-dimensional diffractive acoustic tomography (3D-DAT) is being utilized to demonstrate how per- and polyfluoroalkyl substances, or PFAS, affect embryo development in mice models. Also known as "forever chemicals," PFAS are found in numerous industrial and consumer products, and they are known to accumulate in living organisms and cause adverse health effects. Using a mouse model that had similar levels of PFAS exposure as a human, they saw that oxygen levels increased during early embryo development, slowing down the growth of blood vessels and negatively affecting embryonic growth and development, especially brain development. "By linking blood oxygen levels and vessel development to PFAS exposure, we offer a concrete, measurable pathway to understanding how these chemicals disrupt normal development," according to Dr. Feng.



Read the full article: duke.is/PFAS-3DDAT

Department Featured in Duke Bass Connections 'Agents of Change'

Several past and present members of Duke Ob/Gyn are featured in the "<u>Agents of Change: Portraits of Activism in</u> <u>the History of Duke Health</u>," a Duke oral history project. The work of activists and "change agents" throughout the history of Duke Health in conjunction with Duke's centennial anniversary is documented. The Reproductive Justice Advocates section of the digital exhibit features:

- **Eleanor Easley, MD**, the first woman to receive a four-year medical degree from Duke University and a co-founder of the Durham Women's Clinic
- Joyce N. Jiggetts, RN, BSN, CMHRP, a passionate advocate for women's health, focusing on addressing disparities affecting marginalized communities
- Elizabeth Livingston, MD, reflecting on her early experiences practicing gynecology and caring for HIV/ AIDS patients in a pediatric clinic
- **Phyllis C. Leppert, CNM, MD, PhD**, known for her work in improving reproductive health care outcomes and abortion rights

Duke Health Receives 2024 PQCNC Quality Improvement Award

Duke University Health System received the Perinatal Quality Collaborative of North Carolina (PQCNC) Quality Improvement Award for 2024. The award recognizes North Carolina delivery units that have made a measurable and sustained positive change in a major perinatal quality improvement indicator/issue through the implementation of quality improvement activities within the previous three years.

"Over the past three years, through a comprehensive strategy and working together, we have reduced severe maternal morbidity by more than 40%, and by over 48% for our Black patients. During this time, we have participated in the PQCNC Sepsis and Care of the Late Pre-Term Infant initiatives as well as serving as members of the Expert Team for OB Cardiac Care," said **Heather Talley, MSN, CPPS, RNC-OB, C-EFM, CNM**, who led many of the efforts. "These quality improvement initiatives work to ensure patient safety, improve clinical outcomes and enhance the patient and family experience. This work is possible due to the leadership and commitment of the entire Duke Women's Services team and the partnerships that we have with the NICU, pediatrics, pharmacy, laboratory and so many other support departments."



Left to right: Dr. Jeff Federspiel (DUH), Maggie Oakes (DRH), Melissa Shaw (DRH), Jennifer Junker (DRH), Katherine McDuffie (DRH), Heather Talley (DUHS), Jacqueline Lawdley (DUHS), Melissa Murray (DUHS), Dr. Anne Berry (DUH) and Marty McCaffrey (PQCNC).



Ambulatory Services Leader Contributes to AAPL Publication

Duke Ob/Gyn's vice chair for ambulatory services, **Alice Cooper, OGNP, RNC**, is represented in and contributed to a peer-reviewed article and expert

perspective published by the American Association for Physician Leadership: "<u>A Mixed-Methods Evaluation of</u> the Emerging Role of Access Medical Director in U.S. Health Systems."

Development

Garcia Minimally Invasive Gynecologic Surgery Research Fund Announced



Anna Marie Garcia, MD, PhD, has generously donated \$10,000 to establish the Garcia Minimally Invasive Gynecologic Surgery (MIG

Invasive Gynecologic Surgery (MIGS) Research Fund. This fund will be used to provide residents doing research in MIGS with resources to be successful in ways such as launching research projects, publishing in academic journals and presenting at conferences. The preference is for funds to go to resident MIGS research projects focused on endometriosis, fibroids and pain control.

Duke Ob/Gyn Announces Seven-figure Gift from Szulik Family Foundation to Improve Eclampsia, Preeclampsia Outcomes

The Duke Department of Obstetrics and Gynecology is pleased to announce a seven-figure gift from the Szulik Family Foundation to support research to improve the diagnosis and treatment of eclampsia and preeclampsia, a common complication of pregnancy that can cause serious problems for the mother and baby. Preeclampsia is characterized by high blood pressure and other comorbidities that commonly occurs at the midway point of pregnancy and can be life-threatening.

"Preeclampsia is a devastating and complex disorder of pregnancy that has been studied for centuries — but early delivery remains one of our few interventions. It impacts 3 to 8% of pregnancies," noted Vice Chair for Research **Danny Schust, MD**. Dr. Schust also serves as director of the <u>Reproductive Scientist Development</u> <u>Program</u>, a national training program for clinicianscientists in ob/gyn that is administered through Duke.

Dr. Schust notes that preeclampsia is thought to originate in the placenta and is likely a disorder of placental development. He is leading groundbreaking research using stem cell-based organoids as an in vitro model to study preeclampsia. He will leverage the robust patient population and unique tissue repositories at Duke and his own first-in-kind, diseasespecific organoids to work with collaborators in the Triangle and throughout the country to improve current views on this disease.

The disease is more common in Black women, and in those with low socioeconomic status. "The U.S. has the highest maternal mortality of any developed nation," according to maternal-fetal medicine specialist **Brenna Hughes, MD, MSc**, who also serves as division chief of maternal-fetal medicine and vice chair for obstetrics and quality. "Black women are three times more likely to die during pregnancy or in the year after childbirth than white women. In 2021, the department committed to reducing maternal morbidity by 50% before 2026. In just three years, we have surpassed 40%, receiving national recognition for multidisciplinary care models and highrisk pregnancy care. We have built a world-class team of community partners, clinicians, researchers and staff poised to change the landscape of reproductive health."

For the past four years, The Szulik Family Foundation has been a generous donor to the department with its gifts honoring the late Charles Hammond, MD. Dr. Hammond was a well-respected leader in women's health, who served the community and department in various roles starting in 1968, including department chair from 1980 to his retirement in 2002.



By the Numbers

Our People

100 Faculty

- 13 Consulting and adjunct faculty
- 73 Ob/Gyn staff directly employed
- 500+ Staff (RN, MA, etc.)

- **40** General Ob/Gyn and Community Practices
- **15** Maternal-Fetal Medicine
- 13 Women's Community and Population Health
- 8 Gynecologic Oncology
- 8 Urogynecology
- 8 Reproductive Endocrinology and Infertility
- 5 Reproductive Sciences
- **3** Minimally Invasive Gynecologic Surgery
- 2 Pediatric and Adolescent Gynecology (included in categories above)

- 36 Residents
- 19 Fellows
- 60+ PA/NP/CNM
- 200+ Students per year (MD, PA, NP)

Our Patients

46% increase in visits across various divisions from 148,709 in FY18 to 217,661 in FY24

36% increase in lives touched

The department has expanded its clinical services to 21 clinics and 5 hospitals, with "lives touched" increasing from 74,810 in FY18 to 101,499 in FY24.

101,499 PATIENTS SEEN

by a Duke Ob/Gyn provider in the Duke University Health System

- 6,825 Annual discharges
- **7,748** Annual deliveries (includes WakeMed Hospitals) 34% total growth FY18-FY24
- 217,241 Annual clinic visits
 - 5,943 Annual surgeries

217,241 TOTAL ARRIVED VISITS

- **10,585** Minimally Invasive Gynecologic Surgery
- **12,237** Gynecologic Oncology
- **15,944** Reproductive Endocrinology and Infertility
- 19,716 Urogynecology
- 27,235 Maternal-Fetal Medicine
- 131,524 General Ob/Gyn Community Practices

LOW-RISK PREGNANCIES

69%

31% HIGH-RISK PREGNANCIES



Institutes of Health funding by the <u>Blue Ridge Institute for</u> <u>Medical Research</u> (Clinical Science Department rankings, 2024).

Our Research

Alumni

Explore our interactive alumni map

Duke Ob/Gyn is proud to provide information about our recent alumni (2000-2024).



MAP USAGE TIPS:

- The interactive map is best viewed from a desktop or laptop computer (not tablets or mobile devices)
- Hover over a blue dot on the map to see information about alumni
- Use the interactive key to change your search terms
- Scroll out to see the full U.S. map, including Hawaii



Is your information on the interactive map up to date? Please fill out the <u>alumni survey</u>.

ALUMNI SPOTLIGHT Alexandra Sundermann, MD, PhD



Dr. Sundermann received a career development award through Vanderbilt's Building Interdisciplinary

Research Career in Women's Health (BIRCWH) K12 program. Her project is titled "A Study of Preeclampsia Recurrence." She is developing a pregnancy cohort that utilizes electronic health record data for participants across multiple pregnancies and maternal genetic data to better understand the drivers of preeclampsia recurrence.

Do you have scholarly work or achievements to share? Keep in touch! dukeobgyn@duke.edu



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Vice Chairs

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Division Chiefs

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Andrew Berchuck, MD | Gynecologic Oncology
Anthony Visco, MD | Urogynecology and Reconstructive Pelvic Surgery
Steven Young, MD, PhD | Reproductive Endocrinology and Infertility
Craig Sobolewski, MD | Minimally Invasive Gynecologic Surgery
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Andreas Staebler, MD | Duke Women's Health Cary
MargEva Cole, MD | Durham Obstetrics and Gynecology
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Department Plans First Climate Action Day

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Interested in the department's Historical Highlights? READ MORE ABOUT DUKE OB/GYN

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First dean of Duke's School of Nursing Former chair of Duke Ob/Gyn 2025 Donald T. Moore, MD, Endowed Lecture Featured Speaker duke.is/DTMooreLecture2025

Support the Department



Recognizing the public health and humanitarian crisis being caused by climate change, the Duke Department of Obstetrics and Gynecology is convening the **First Annual Climate Action Day** on April 23, 2025, from 7:30 to 9:30 a.m. in the Duke South Amphitheater. This inaugural event, which coincides with internationally commemorated Earth Day, is being organized by the steering committee of the Duke Climate Action Collaborative to Promote Reproductive Health (CACRH). Based administratively in the department, CACRH aims to elevate the impact of climate change on the reproductive health trajectory and create solutions that improve the lives of the women, families and communities cared for by Duke Health. Learn more at <u>duke.is/ClimateAction2025</u>.

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