From bench to bedside — providing hope
Cutting-edge research • Specialized care delivery • Life-changing results
Message From the Chair

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Duke Ob/Gyn by the Numbers
Newsworthy & Noteworthy
As the chair of Duke Ob/Gyn, I continue to be inspired every day. Our team works together to provide outstanding care to the women in our community, to educate tomorrow’s leaders in women’s health care and to and make discoveries that will advance women’s health.

While this past year has brought challenges, including a lingering pandemic, nursing and staff shortage and the Supreme Court’s decision to overturn Roe v. Wade, we continue to strive to achieve our mission: deliver better health and hope to all women and their families through compassionate care, innovation, education and discovery.

Despite the challenges of the unknown landscape for reproductive health brought on by the Supreme Court’s Dobbs v. Jackson Women’s Health Organization decision, as a department, we are unwavering in our commitment to provide and advocate for comprehensive women’s health care, including abortion.


As you read this issue of our annual publication, you will note the exceptional work and excellence that has been achieved as we translate research from bench to bedside — and provide hope to our patients and their families. Here are just some of the highlights:

- In commemoration of the 50th anniversary of Duke Cancer Institute and the 50th anniversary of the Division of Gynecologic Oncology, you’ll see a compilation of truly extraordinary work in this field and a look at what the future holds.
- New findings demonstrate practice-changing paradigm shift for urogynecologists consistent with trials in other fields, which has shown that early activity doesn’t impede outcomes and may improve them in some circumstances.
- A multidisciplinary team in Duke’s Müllerian Anomalies Program brings the necessary skillset to offer each patient the best possible solution, coordinating surgical care, recovery and long-term follow-up not possible at most hospital centers across the country.
- Popular TikTok videos related to intrauterine devices (IUDs) tend to depict negative patient experiences related to pain, while some videos conveyed unreliable information. Duke Ob/Gyn led a study to analyze patients’ personal experiences.
- Work in global health continues to impact cervical cancer diagnostic screening through clinical translation of a diagnostic algorithm: Colposcopy Aided Risk Evaluation (CARE). And an innovative, real-world experiment to potentially measure the possible effects of exposure to per- and polyfluoroalkyl compounds (PFAS) on maternal health is underway in partnership with the Duke Global Health Institute.

Thank you for taking the time to learn about how Duke Ob/Gyn is a leader in cutting-edge research, specialized care delivery and life-changing results.

Matthew D. Barber, MD, MHS
E.C. Hamblen Professor and Chair, Duke Ob/Gyn
Restrictions on activity and lifting after pelvic reconstructive surgery are traditionally recommended for patients. That practice was challenged by investigators at Duke University, led by former Duke urogynecology and reconstructive pelvic surgery fellow Michele O’Shea, MD, MPH, who conducted the Expedited Versus Restrictive: Limitations on Activity Following Surgical Treatment of Prolapse (EVeRLAST) Study.

Findings were presented at the 2022 American Urogynecologic Society (AUGS)/International Urogynecological Association (IUGA) scientific meeting in June 2022 as a late-breaking abstract titled “Standard Restrictions Versus Expedited Activity after Pelvic Organ Prolapse Surgery: A Randomized Non-inferiority Trial.”

The objective of the study was to determine whether expedited resumption of postoperative activity was noninferior to standard activity restrictions with respect to three-month anatomic and symptomatic outcomes in women undergoing surgery for pelvic organ prolapse. The investigators hypothesized that immediate resumption of physical activities as tolerated after prolapse surgery would result in noninferior anatomic support and symptomatic outcomes compared to standard restrictions.

One hundred and twenty-three physically active patients with bothersome pelvic organ prolapse undergoing either vaginal or robotic surgery were randomized to either standard activity restrictions or expedited postoperative activity restrictions. Those randomized to standard restrictions were instructed to avoid heavy lifting over 10 pounds for six weeks and not return to work for at least two weeks for sedentary work, or six weeks for those with jobs that included physical labor. Participants randomized to expedited activity were told that they had no lifting or activity restrictions and that they should resume normal activity, including exercise, as soon as they were able.

The primary outcomes of the study included both anatomic (maximum extent of prolapse during straining) and symptomatic (measured using the 16-item Pelvic Organ Prolapse Distress Inventory) outcomes at three months. Other quality of life and activity measures were collected, including having each participant wear an activity monitor for six weeks after surgery.

Results of the study demonstrated both anatomic and symptomatic outcomes in patients with expedited activity after surgery were not inferior to those with standard activity and lifting restrictions. Based on these results, “It is reasonable for providers to instruct patients to resume physical activity ad lib after prolapse surgery,” said Dr. O’Shea. “Patients who resumed activity right away after surgery did just as well as those who were told to avoid lifting or activity for six weeks.”

The investigators intend to continue to follow the study patients for two years after surgery.

Matthew Barber, MD, MHS, senior author, noted, “This study is a paradigm shift for urogynecologists — it is practice changing. For decades, surgeons have been instructing patients to avoid activity after reconstructive surgery, and we now know that is unnecessary. The findings of this study are consistent with trials in other fields, like orthopedic and hernia surgery, which have shown that early activity doesn’t impede outcomes and may improve them in some circumstances.”

Study authors are Michele O’Shea, MD, MPH (fellowship Class of 2022); Tracy Truong, MS; Alaaattin Erkanli, PhD; Nazema Siddiqui, MD, MHSc; and Matthew Barber, MD, MHS. This study was funded by the E.C. Hamblen Endowed Professorship fund of the Duke University School of Medicine.
TOP IUD TIKTOK VIDEOS OFTEN PORTRAY PAINFUL EXPERIENCES, HEALTH CARE MISTRUST, STUDY SHOWS

BY ALEXIS PORTER
DUKE HEALTH NEWS OFFICE

Popular TikTok videos related to intrauterine devices (IUDs) tend to depict negative patient experiences related to pain, while some videos conveyed unreliable information about the contraceptive devices.

Duke Health researchers Jonas Swartz, MD, MPH, medical director of Family Planning and Ryan Program Director, and Jenny Wu, MD, Duke Ob/Gyn resident, led the study published Dec. 6, 2022, in Obstetrics & Gynecology.

The researchers used a web application to download and compile information on the top 100 most viewed TikTok videos tagged #IUD. These videos often portrayed personal experiences with IUDs.

Of the videos analyzed, 37.8% had a negative tone, 19.4% had a positive tone; 27.6% mentioned a distrust of health care professionals and 24.4% contained moderately or highly inaccurate scientific claims

“Many patients are getting information about reproductive health from TikTok so, as a clinician, it’s eye-opening to see that a majority of videos had a negative narrative,” Dr. Swartz said.

“I want my patients to get a full spectrum of information but also accurate information.”

The most common topic covered in patient experience videos was IUD insertion and removal, where patients often highlighted negative experiences with pain control, felt they didn’t have adequate anesthesia and experienced side effects

“For health care professionals, knowing what patients see on TikTok can be key in dispelling misinformation and setting expectations when it comes to patient care. Now I almost always ask my patients, ‘did you watch videos on TikTok’ because it helps me tailor my counseling.” Dr. Swartz said.

“I don’t want getting an IUD to be a traumatic experience for patients,” Dr. Wu added. “I recognize that pain — particularly pain related to pelvic exams — is complex, influenced by man factors, and different for every person. That’s why it’s important to me that our patients, especially our young patients, be able to trust their gynecologists.”

Additional authors of the study include Esme Trahair and Megan Happ, two medical students at Duke University School of Medicine.

The study received funding support from the National Institute of Child Health and Human Development of the U.S. National Institutes of Health (K12HD103083).
Uterine fibroids — benign tumors made of stiff collagen tissue that grow on the uterus — are common reproductive-age tumors. Sometimes these growths are harmless and can even go undetected, but in many cases they cause symptoms ranging from pain and bleeding to infertility. More than 80% of Black women and nearly 70% of white women have fibroids by age 50. Current interventions are either expensive, difficult to access or have significant systemic side effects.

After nearly a decade of working in parallel at campuses separated by just four miles, Friederike Jayes, DVM, PhD (above left), in the Duke Division of Reproductive Sciences, and Darlene Taylor, PhD (above right), professor of chemistry and biochemistry at NCCU, are now combining their research to advance a fundamentally new approach for treating uterine fibroids.

Dr. Jayes has long been fascinated with this problem and is involved in developing a new therapeutic treatment using a drug capable of breaking fibroid down inside the body. Since the tumors are collagen-based, the key ingredient in this intervention is collagenase, an enzyme that digests collagen. Meanwhile, Dr. Taylor has created a product called LiquoGel™, which serves as a platform to deliver drugs that we would be where we are right now without that kind of support.

LiquoGel™, when combined with a collagenase drug inside of a syringe, can be delivered directly to a tumor. It changes from a liquid to a gel inside of the body.

To understand how this combination works in practice, Dr. Taylor suggests imagining a bowl of gelatin with chunks of fruit suspended in it. In this analogy, LiquoGel™ is the gelatin, and the fruit is the fibroid-digesting drug. But there is one key difference: unlike a gelatin that someone would eat, which solidifies as it cools, LiquoGel™ firms up when it is warmed.

“The beauty of LiquoGel™,” Dr. Taylor explained, “is that it’s liquid at room temperature, and it becomes a gel at body temperature. Because of that, it gets delivered to the fibroid and becomes a gel. The co-dissolved drug is trapped during the gel process, and it’s much less likely that the drug will be washed out.”

In other words, the drug can be injected directly into the desired area and will stay there, doing its work without affecting other parts of the body. Overtime, the LiquoGel™ partially degrades, and the drug begins to be broken down inside the body.
allowing the body to get rid of it. Drs. Jayes and Taylor feel that uterine fibroids, because they are almost never fatal and only affect women have not received the scientific attention they deserve.

Several other treatment options do exist, each with advantages and drawbacks. The ultimate resolution to uterine fibroids is a hysterectomy — major surgery to remove the uterus. While this solves the problem permanently, it also entails a lengthy recovery and means the patient could never again become pregnant.

“For some women, a hysterectomy is not desirable,” said Dr. Jayes. “It’s not a small thing. It is major surgery with risks.”

There are also less invasive surgeries to remove the fibroids, but this does not prevent regrowth and still involves pain and recovery. Certain medications can help, including birth control and other hormonal treatments, but these also have systemic effects on the body.

The combination of LiquoGel™ and the collagenase drug, by contrast, could be administered in a doctor’s office and would act only on the tumor itself.

While the Duke-NCCU award “stabilized the collaboration,” according to Dr. Jayes, much work remains before the treatment can reach patients.

The team has secured follow-on funding from North Carolina Biotechnology Center to conduct scale-up production of LiquoGel™ and time-course studies, as well as other essential research to facilitate the process of enabling clinical trials and ultimately seeking FDA authorization. At the same time, they intend to look at the social side of the uterine fibroid problem: what perceptions, beliefs and cultural issues inform the care that women receive and the care they want?

“We need to know if people would adopt the LiquoGel™ intervention,” said Dr. Jayes. “Where is this most needed, and what is the most desirable characteristic of it? We want our work to enrich the fibroid field.

HORMONE THERAPY APPEARS TO REDUCE RISK OF SHOULDER PAIN IN OLDER WOMEN

Preliminary study finds use of hormone replacement therapy might reduce risk of a painful shoulder condition called adhesive capsulitis

BY SARAH AVERY
DUKE HEALTH NEWS OFFICE

Post-menopausal women on hormone replacement therapy had a lower risk of developing a painful shoulder condition known as adhesive capsulitis compared to women who did not receive estrogen, according to a study led by Duke Health researchers. The study — a collaboration between the Duke Departments of Orthopedics and Obstetrics and Gynecology — was presented Oct. 12, 2022, at the meeting of the North American Menopause Society meeting in Atlanta.

“Estrogen plays a role in stimulating bone growth, reducing inflammation and promoting connective tissue integrity,” noted Jocelyn Wittstein, MD, associate professor in Duke’s Department of Orthopaedic Surgery. “Not using systemic hormone therapy was associated with a higher risk of adhesive capsulitis in our retrospective cohort study.”

This retrospective cohort study analyzed medical records of nearly 2,000 post-menopausal women between the ages of 45 and 60 and who presented with shoulder pain, stiffness and adhesive capsulitis.

Among the women in the study, only 3.95% of those who had received hormone replacement therapy were diagnosed with the shoulder condition, compared to 7.65% of women who had not received estrogen replacement. The differences were no statistically significant, likely due to the sample size, but the researchers said the finding should drive further investigation.

“Given that older women are most commonly affected by adhesive capsulitis, there may be a connection between the loss of estrogen in menopause and this painful shoulder condition,” said Anne Ford, MD, associate professor in the Department of Obstetrics and Gynecology at Duke University School of Medicine.

In addition to Wittstein and Ford, study authors include Eliana B. Saltzman, Emily K. Reinke, Elizabeth P. Wahl, June Kennedy, Emily Poehlein and Cindy Green.
During pregnancy, Müllerian ducts in a developing fetus undergo changes to become the mature female reproductive tract. When they do not properly develop, conditions known as Müllerian anomalies may be present at a child's birth, but they are often not discovered until much later in life.

 Providers with Duke Ob/Gyn’s Müllerian Anomalies Program help patients to navigate questions around their condition and determine their best options for relieving symptoms and addressing concerns, such as painful intercourse, menstrual leakage and potential pregnancy and delivery issues.

 By collaborating closely with urologists, colorectal surgeons and pediatric and adolescent gynecologists, the team determines how to safely and effectively offer appropriate patients innovative therapies, including vaginal dilation, vaginoplasty, vaginal septum surgery and pelvic floor physical therapy.

 “Often in these cases, patients don’t expeditiously get answers for why they have pain until they come to a provider who has extensive experience with diagnosing and treating it,” Dr. Kisby said. “It’s important for providers to know to look for issues with the kidney, bladder and urethra, which can form congenitally along with the Müllerian anomaly.”

 The related conditions that Duke experts treat include:

• Vaginal anomalies: Vaginal agenesis (absence), vaginal septum (longitudinal, transverse or oblique)
• Uterine abnormalities: uterus didelphys (double uterus), arcuate uterus (curved), unicornuate uterus (one-sided), bicornuate uterus (heart-shaped), septate uterus (partitioned) and absent uterus
• Mayer-Rokitansky-Küster-Hauser (MRKH) Syndrome, an undeveloped uterus and upper vagina with external genitalia that appear normal
• Obstructed hemivagina and ipsilateral renal anomaly (OHVIRA), which includes uterus didelphys, unilateral low vaginal obstruction and same-sided absence of a kidney
Q & A

How have treatment options for patients with congenital anomalies changed over the past 10 years?

Dr. Kisby: One of the greatest advances in treatment of congenital anatomic differences of the genitourinary (GU) tract is our focus on multidisciplinary care. If we focus on treatment of one condition — congenital absence of the vagina — we have seen an increasing breadth of providers who treat this condition. This is important because patients may not receive a timely diagnosis if their care provider is not familiar with Müllerian abnormalities. A handful of providers from gynecology, urogynecology, reproductive endocrinology and infertility, urology and pediatrics have increasingly focused their training on medically and surgically caring for women with these abnormalities, leading to development of magnet centers and service lines. Naturally, this has led to advances in treatment options. Going back to our example of vaginal agenesis, three types of neovagina surgeries have been around for decades. In the last 10 years, we have modified the techniques to be minimally invasive, allow for different types of grafts (split thickness, buccal, biologic), involve customized molds (described below) and open the door for innovative regenerative reconstructive options in the future.

What’s on the horizon?

When neovaginal surgeries were first described, the importance of postoperative vaginal mold was well-established. This mold, however, was made from many different material over the years. Initially, a hollow, cylindrical piece of glass was placed in the vagina during convalescence. As you could imagine, glass and other high-density materials could be uncomfortable, as well as put undue pressure on nearby organs. In fact, urethral and rectal fistulas were no uncommon when cylindrical hard molds were used. We have begun to design wearable vaginal molds that are more anatomic and patient friendly. One such effort is the creation of a 3D-printed vaginal mold, which continues to evolve. This mold is an alternative to the limited commercially available molds today and allows for customization to user anatomy. With 3D printers becoming more widely accessible, we believe this method could become universally accepted, with hopes of contributing to increased patient satisfaction and decreased complications.

How do you hope this will impact urogynecology and reconstructive pelvic surgery fellowship training in the future?

It is an exciting time at Duke, because we are able to holistically and comprehensively care for patients with GU abnormalities using a team-based approach, a team that actively involves our trainees. Our group has purposefully made trainee education a priority in building this service line. We regularly invite trainees outside our individual subspecialties to participate in medical decision making and surgical intervention. For these fellows, congenital abnormalities is an education milestone — what better way to learn than from a growing multidisciplinary team?

What are the unique aspects of being part of this comprehensive team?

Dr. Weidner: Müllerian anomalies are but one example of a wide range of congenital pelvic conditions that can have complex ramifications for patient across multiple organ systems. Often our patients have had reconstructive surgery early in life and, while lifesaving, these procedures sometimes need revision or can lead to other challenges as patients grow into adulthood. Many congenital pelvic and urogynecologic conditions are fairly rare, and some patients have had surgeries that are no longer common, making each situation a unique challenge — and one that benefits from broad experience across multiple organ systems. A multidisciplinary team of experienced and creative surgeons like what we offer at Duke brings the necessary skillset to offer each patient the best possible solution. We work as a team to coordinate surgical care, recovery and long-term follow-up — that’s a level of quality of care that is just not possible at most hospital centers across the country.

How does this program bridge the gap between generalists and specialists, and how does it benefit patients?

Dr. Howell: With the establishment of Pediatric and Adolescent Gynecology, patients now have a specialist care “home” where they can receive evidence-based, age-appropriate care by a knowledgeable specialist. For example, diagnoses such as imperforate hymen, transverse vaginal septum and congenital absence of a vagina can present in similar ways but are treated very differently. Patients with these differences are relatively rare (less than 1 out of 1,000). Patients who are referred to us when these conditions are suspected can receive the necessary evaluation to have the right intervention at the right time in their lives. Community obstetrician-gynecologists may not have enough familiarity to know exactly what needs to be done, given how rarely they encounter these patients, and we are able to provide our expertise.
GLOBAL HEALTH

TRANSLATING CERVICAL CANCER ALGORITHMS TO RAPID DIAGNOSIS MECHANISMS

Megan Huchko, MD, MPH, Hollier Family Associate Professor of Global Health and Ob/Gyn, is co-primary investigator with the Center for Global Women's Health Technologies Director Nimmi Ramanujam, PhD, on a new $3 million award to explore technologies to improve cervical cancer screening in low-resource settings.

The award is through a Research Project Cooperative Agreement (U01) from the National Cancer Institute within the National Institutes of Health. The project began in May 2022 and continues through April 20, 2027; it will support the further development and clinical translation of a diagnostic algorithm GWHT has been developing, referred to as Colposcopy Aided Risk Evaluation (CARE).

When coupled with diagnostic tools like the pocket colposcope, CARE will enable rapid diagnosis of precancerous and cancerous lesions. Funding will support GWHT’s ongoing work to reduce the burden of cervical cancer by bringing new technologies, such as HPV self-sampling, pocket colposcopy, thermal ablation and decision-making algorithms to community-based clinics.

“This grant will enable us to look at both the technology and implementation strategies that will allow more accurate and lower cost cervical cancer screening to reach millions of women living in low- and middle-income settings. To reach the World Health Organization elimination targets, these must be done hand in hand,” said Dr. Huchko.

PFAS CONTAMINATION AND IMPACT ON MATERNAL HEALTH

An innovative, real-world experiment to evaluate the effects of exposure to per- and polyfluoroalkyl compound (PFAS) on maternal health and fetal development, and raise awareness at the community level in North Carolina and around the globe, is the focus of the work led by Liping Feng, MD, of Duke Ob/Gyn’s Division of Reproductive Sciences and an affiliate of the Duke Global Health Institute. Her research looks at PFAS mixtures mimicking real-life exposures, not just the effect of single PFAS compounds in isolation. The model can potentially translate to applications for national and global evaluation of PFAS contamination, and development of standardized guidelines and education programs to increase community awareness.

Dr. Feng’s research found that in utero PFAS exposure resulted in hypertension and alterations of locomotor development in offspring. While this research is relatively new, Dr. Feng is using the findings to identify other communities throughout the U.S. and around the world that are interested in researching PFAS compound exposure. Her results have been published in environmental health journals and are being shared among environmental conferences that are now centering research like hers with the goal of bringing awareness to PFAS exposure.

“I advocate for pregnant patients who are impacted by PFAS exposure and champion translating environmental health research into clinical care, and awareness among physicians of PFAS toxicities,” said Dr. Feng.

Read the complete article on Dr. Feng’s work by Alessandro Figueroa.
The commemoration of the 50th anniversary of Duke Cancer Institute (DCI) and the 50th anniversary of the Division of Gynecologic Oncology is underway. A half century ago, in 1972, William T. Creasman, MD, established the division, becoming its first chief. This coincided with Duke becoming an officially designated Comprehensive Cancer Center by the National Cancer Institute.

Four years before, Duke had already made its first big mark in the field of gynecologic oncology.

In 1968, the late Charles B. Hammond, MD, then a clinical associate, founded the Southeastern Regional Trophoblastic Disease Center at Duke, the first center of its kind in the region to combat gestational trophoblastic disease, the development of abnormal cells inside the uterus in the tissues surrounding the fertilized egg that can go on to form cancerous and benign tumors. Using what he learned at the National Institutes of Health, Duke gynecologists were able to offer patient chemotherapy treatment to prevent the malignant form of the disease from spreading. Today, this rare disease is considered a curable condition.

This milestone is one of countless others that have impacted the treatment of gynecologic cancer patients at Duke. The commitment of the division and DCI to research and innovation continued throughout the 20th century and entered a new era of discovery in the 21st century.

“There have been a number of spectacular advances in the past 50 years that have had a dramatic impact on the field. Perhaps the most significant has been the development of cervical cancer screening and the HPV vaccine, which almost completely prevents the development of cervical cancer,” said third and current division chief Andrew Berchuck, MD. “In the U.S. and other developed countries, this has reduced cervical cancer death rates by over 90%. A significant development that is easy to pass over has been the development of treatment guidelines by the National Comprehensive Cancer Network. Duke was one of the founding members of the NCCN, and these widely available guidelines provide an evidence-based approach to treatment. Several members of our group are involved in the various guidelines committees.

“Probably the thing I’m most proud of is, I was lucky enough to go to the National Institutes of Health in the mid-60s at a time when malignancy was being treated that grew from the placenta, or the afterbirth — a universally fatal disease. Someone there had just made a discovery that showed it could be cured with drugs, and while I was there, we refined those drugs; expanded the cure rate to approach 100%. The fundamental idea of using drugs in that disease was a radical new one. It had been tried but really hadn’t been proven. And when I was there, we were able to try it on nearly 100 patients ... and then expanded to the center here [at Duke]. It transformed a disease, one of the first diseases that was ever cured with chemotherapy.”

— Charles B. Hammond, MD, chair of Duke Ob/Gyn from 1980 to 2002, pictured left circa the 1970s (photo courtesy of Duke Medical Archives)
Assisted reproductive technologies designed to counter potential fertility losses among cancer patients offer many new and innovative options, but only a minority of patients who might benefit take advantage of them.

The Duke Fertility Preservation Program is working to increase awareness of these options through greater outreach to both patients and potential referring providers, according to program director Kelly Acharya, MD. Dr. Acharya wants to communicate with more patients because evidence shows that just hearing about one’s care options eases a patient’s later regrets, whether or not the patient takes advantage of them.

As part of this outreach, the Duke Onco-Fertility Program brought on a patient navigator, Jackie Balliot, BSN, RN, OCN, with the Duke Cancer Institute Supportive Care and Survivorship Center. The goal is to help lower the barriers to access to care and increase awareness of fertility preservation innovations that often surprise both patients and providers.

“The patient navigator is a bridge between the patients and the providers, coordinating multiple aspects of that patient’s care. The navigator provides a centralized point of contact, which makes it easier for the oncology providers to refer patients,” Dr. Acharya said.

Learning of a cancer diagnosis can be overwhelming to a patient, and avoiding any delays in treatment can be critical. Patients need to be seen quickly and told of their options. “We’re committed to seeing patients within 48 hours of referral. We can get people in quickly and make the process as easy as possible,” Dr. Acharya said.

One way to streamline the process is via telemedicine appointments, which many newly diagnosed cancer patients — bewildered by the number of medical appointments — find particularly helpful. For males who want to keep their future options open, sperm cryopreservation is straightforward. It can be done in a day, with frozen sperm remaining viable for years or even decades.

For females, the time frame needed to obtain eggs or embryos for preservation has been considerably compressed in recent years. “We used to think that oocyte preservation could delay somebody’s chemotherapy for a month or more. But we have learned that it generally takes about two weeks to get eggs to grow so we can extract and freeze them,” Dr. Acharya said.

For some patients even a two-week delay before starting cancer treatment is too much, and another option has come on the horizon for them. “Within the next year, we hope to bring ovarian tissue cryopreservation to Duke,” Dr. Acharya said. “This is surgery that we can perform on an emergency basis to remove an ovary and then freeze the tissue. A patient could get started on radiation or chemotherapy the next day if they needed to.” After the patient’s cancer treatment is completed, the ovary or ovarian tissue can be transplanted back into the patient to produce eggs.

“The American Society for Reproductive Medicine now considers this the standard of care for people who don’t have other options, but it’s not offered anywhere in North Carolina yet. We’re trying to bring it to Duke this year,” Dr. Acharya said.

The patient navigator can help with another challenging aspect, as well. Assisted reproductive technology is expensive and may not be covered by a patient’s insurance. The navigator’s expertise includes knowing what insurance covers and sometimes recommending creative ways to help the patient financially, including through charity care.

Dr. Acharya said this is one more reason for providers to have a “low threshold for referring patients to us. We’re happy to see people who providers might not even think are eligible, like children or preteens who have not gone through puberty yet. Our goal is not to increase fertility preservation rates per se, but rather to empower patients and their families to make informed fertility preservation decisions.”
LOOKING FOR AN ON-RAMP:
DELICATE CONVERSATIONS IN TERMINAL OVARIAN CANCER

Five questions for gynecologic oncologist Brittany Davidson, MD, about the best approach to patient goals, values and treatment expectations

BY JULIE POUCHER HARBIN, DUKE CANCER INSTITUTE, AND JANE BLACK, DUKE OBSTETRICS AND GYNECOLOGY

According to the National Cancer Institute, nearly 20,000 women in the U.S. will be diagnosed with ovarian cancer — which encompasses the ovaries, fallopian tubes and the primary peritoneum — and over 13,000 are expected to die from the disease in 2023.

Despite clinical guidelines advising against intensive or invasive end-of-life care, more than half of patients with terminal ovarian cancer will receive at least one aggressive intervention near the end of life — such as undergoing chemotherapy treatment, being admitted to the intensive care unit or being admitted to hospice at such times that, research shows, these interventions wouldn’t help prolong their life and would actually worsen their quality of life.

Duke Cancer Institute gynecologic oncologists Brittany Davidson, MD, and Laura Havrilesky, MD, MHSc, note there is often a lack of understanding or absence of communication about palliative care options and reducing aggressive end-of-life care.

“What we should be striving for near the end of life is goal-concordant care, focused on the delivery of medical care in line with an individual patient’s values and goals for treatment and respecting any limitations delineated by the patient. For the majority of patients, aggressive end-of-life care is not what they want,” they wrote in an editorial for the March 2022 issue of JCO Oncology Practice (originally published online on Nov. 8, 2021).

Dr. Davidson addresses the best approach to patient goals, values and treatment expectations:

What is the protocol that you and your colleagues in the Division of Gynecologic Oncology follow to make sure that patients understand their cancer treatment plan?

Recognizing how important the delivery of goal-concordant cancer care is, we identified a void in our practice when patients at high risk for death in six months were not systematically engaged in goals-of-care discussions with their health care team. We developed an alert strategy to let physicians know when a patient meeting this high-risk criterion is in our clinic. This alert includes a recommendation that someone from the patient’s care team start a goals-of-care discussion and consider a referral.

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to the Duke Palliative Care clinic. This started as a pen-and-paper ID strategy and has since transitioned to an alert in the clinician-facing electronic health record. All of our fellows and attendings have received advanced communication training on how to conduct goals-of-care conversations since these discussions are often anxiety-provoking and fraught with emotion.

**How do you advise providers to approach these conversations with patients and their families?**

I teach them to look for an “on-ramp” from the patient — these are often questions they hear from patients that hint around topics regarding what the future looks like. I’ll ask permission to discuss these topics and, if given the go-ahead, ask what kind of information would be most helpful. I try to take the lead from the patient. Some people are really time-line oriented, and others are more concerned with symptoms or how to talk to their family. What’s important to the patient? Are there events they want to be around for? Symptoms they want to avoid? Some patients really want to know what it’s going to be like to die. It really is different for everybody. Most importantly, you can’t have an agenda when you start these conversations. Time constraints or emotional bandwidth may limit what a patient can process or what a provider can discuss, especially in a busy outpatient clinic. If you can only get through parts of the conversation, it’s important to set a time (next visit, a phone call the next day) where you can continue the conversation.

**One of your concerns, as you note in the editorial, is that these conversations are happening too late in the patient’s cancer journey. What accounts for this?**

There are barriers on both the physician and patient end. Physicians may see these conversations as too time-intensive and so avoid them. Others feel like it will adversely impact the patient-physician relationship as there is this idea of “taking hope away.” Patients may not know how to ask these questions or don’t want to give their team the impression they don’t want to do treatment. The data that exists shows that patients do value these conversations, and, with communication skills training, physicians can do this empathetically within the time constraints of a typical outpatient appointment while maintaining excellent relationships with their patients moving forward.

**How is aggressive end-of-life care poor quality care?**

Aggressive care toward the end of life is typically not in line with what the majority of patients or their families want. The problem is that often no one has directly actually asked them what they want. The patient may have been on the “treatment train” for so long that they forget that there is an alternative strategy that prioritizes relief from suffering in all of its forms. Our job as oncologists is to deliver end-of-life care that’s in line with their goals — but, to be able to do this, we need to ask them about their goals.

**Some patients hear “palliative care” and assume it’s code for “end-of-life care.” When should this treatment option be offered**

This is a major problem — many patients equate palliative care to hospice and so are hesitant to consider their involvement. We do a lot of re-education of patients and their families on the myriad benefits of specialty palliative care. These specialty providers are truly experts in symptom management to help patients live the lives they want. Several major medical organizations recommend the involvement of palliative care within the first few months of an advanced or recurrent cancer diagnosis; however, this does not routinely happen. We must continue to optimize our use of specialty palliative care and the critical communication skills involved in goals-of-care conversations if we are to provide truly high-quality care in line with the goals of our patients.
REIGNITING THE WHITE HOUSE CANCER MOONSHOT IN GYN ONC & BREAST CANCERS

Duke Cancer Institute oncologists blaze the trail

BY JULIE POUCHER HARBIN
DUKE CANCER INSTITUTE

In October 2022, gynecologic oncologists Brittany Davidson, MD; Haley Moss, MD, MBA; and Angeles Alvarez Secord, MD, MSc, participated in national-level events under the auspices of the White House Cancer Moonshot Initiative. The focus was on breast and gynecologic cancers.

First launched in 2016 by the Obama administration and led by then-Vice President Joe Biden to “accelerate scientific discovery in cancer, foster greater collaboration and improve the sharing of cancer data,” the Cancer Moonshot was reignited in February 2022 by President Joe Biden and first lady Jill Biden, EdD. The new goals are to “reduce the cancer death rate by half within 25 years and to improve the lives of people with cancer and cancer survivors.”

Dr. Davidson was invited as a member of the steering committee of the American Cancer Society National Roundtable on Cervical Cancer, which aims to “reduce barriers to care, eliminate disparities, reduce harms and promote new technologies in all persons with a cervix.”

Dr. Moss, who leads the U.S. Department of Veterans Affairs (VA) Breast and Gynecologic Oncology System of Excellence, and Dr. Secord participated in a virtual White House Cancer Cabinet Community Conversation on Breast and Gynecologic Cancers moderated by Carolyn Clancy, MD, assistant under secretary for Health for Discovery, Education and Affiliate Networks at the Veterans Health Administration.

Dr. Secord, president-elect of the Society of Gynecologic Oncology, was asked by Dr. Clancy how to expand clinical research opportunities in the general population of cancer patients to ensure that studies are more diverse — representative of the general population. According to the FDA, only 8% of participants in clinical trials that led to FDA approvals were Black, which Dr. Secord said, “limits the ability to assess underlying prognostic factors and explore underlying tumor biology.”

Dr. Moss drew attention to three new pieces of legislation in the areas of breast and gynecologic oncology — the MAMMO (Making Advances in Mammography and Medical Options for Veterans) Act, the SERVICE Act (Supporting Expanded Review for Veterans in Combat Environments) and the PACT Act — which allows the VA to expand care and benefits to more veterans with environmental exposures during their military service and expands the types of cancers that are now presumed to be service-connected disabilities, including breast and gynecologic cancers. They were passed by Congress over the summer of 2022 to increase and expand screening, testing and treatment opportunities for veterans.
Non-Hispanic Black patients are less likely to receive guideline-appropriate treatment for ovarian cancer than non-Hispanic white patients, significantly affecting their treatment quality and survival chances.

The study, appearing online in the Journal of the National Comprehensive Cancer Network, was led by Duke Health researchers Mary Katherine Anastasio, MD, a resident in Duke Ob/Gyn, and Tomi Akinyemiju, PhD, associate professor in the Department of Population Health Sciences.

The researchers focused on whether there were any racial differences in the application of guidelines among women with ovarian cancer. The guidelines specify treatment standards such as performing surgeries to assess cancer stage or administering the appropriate number of chemotherapy cycles.

More than 6,600 Medicare patients with ovarian cancer were analyzed from a database. Of those, 23.8% of white patients received guideline-appropriate surgery and chemotherapy compared to 14.2% of Black patients.

The racial disparities in treatment persisted even after accounting for patients’ ability to pay, the distance they drove to receive care and the availability of specialists or cancer centers in their area.

“While fewer than a third of all patients received quality ovarian cancer treatment, the racial disparity is striking and extremely concerning,” Dr. Akinyemiju said. She cited the legacy of structural racism — notably the lack of access to jobs that include high-quality health care benefits and housing patterns with limited access to health care resources in predominantly Black neighborhoods.

The researchers said the study reinforces earlier findings that ovarian cancer patients have worse outcomes when they do not receive guideline-based treatment.

“It is important to ensure that oncologists are approaching each patient without bias,” Dr. Anastasio said. “Guidelines provide a standard by which all providers should care for patients with cancer, regardless of region and regardless of patient race and/or ethnicity. Additional funding, training and resources are required in underserved areas to ensure that these guidelines are put into practice.”
DUKE OB/GYN BY THE NUMBERS

OUR PEOPLE

97 Faculty
15 Consulting and Adjunct Faculty
36 Residents
16 Fellows
56 PA/NP/CNM
69 Ob/Gyn Staff (directly employed)
500+ Ob/Gyn Staff (RN, MA, etc.)
200+ Students/year (MD, PA, NP)

<table>
<thead>
<tr>
<th>Department</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Ob/Gyn / Community Practices</td>
<td>41</td>
</tr>
<tr>
<td>Maternal-Fetal Medicine</td>
<td>15</td>
</tr>
<tr>
<td>Gynecologic Oncology</td>
<td>7</td>
</tr>
<tr>
<td>Urogynecology</td>
<td>8</td>
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<tr>
<td>Reproductive Endocrinology &amp; Infertility</td>
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<tr>
<td>Minimally Invasive Gynecologic Surgery</td>
<td>3</td>
</tr>
<tr>
<td>Women's Community &amp; Population Health</td>
<td>11</td>
</tr>
<tr>
<td>Reproductive Sciences</td>
<td>5</td>
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</tbody>
</table>

OUR PATIENTS

242,109 Total arrived visits

57,779 Maternal-Fetal Medicine visits
11,031 Gynecologic Oncology visits
13,462 Urogynecology visits
17,537 Reproductive Endocrinology & Infertility visits
8,894 Minimally Invasive Gynecologic Surgery visits
133,406 General Obstetrics & Gynecology visits

72,391 Patients seen by a Duke Ob/Gyn provider in the Duke University Health System

172,159 Clinic visits
4,341 Annual surgeries
6,696 Annual discharges
6,749 Annual deliveries

66% low risk
34% high risk (MFM attending)

In 2022 . . .
65 New grants/awards
85 Active protocols
92 Total funded research projects (new and continuing)
326 Peer-reviewed publications
35 Available clinical trials

OUR RESEARCH

$3,731,237 (42%) Federal NIH funding
$3,504,629 (39%) Non-federal funding
$1,665,649 (19%) Federal non-NIH funding

• Data reflects Fiscal Year 2022 (7/1/21 – 6/30/22)
• Clinic visits include only new and return visit types
• Does not reflect Duke Ob/Gyn deliveries at WakeMed Nort
National Awards

Angeles Alvarez Secord, MD, MHSc, is the recipient of a 2022 Health and Environmental Sciences Institute THRIVE Grant Award of $45,000 for the research study “Redox-active drug, BMX-001, as a neuroprotectant: A preventive strategy for chemotherapy induced neurotoxicity.” Dr. Secord is also president-elect of the Society of Gynecologic Oncology.

Nazema Siddiqui, MD, MHSc, was honored with the CAIRIBU Collaboration Award. A former K12 KURE Scholar in the Collaborating for the Advancement of Interdisciplinary Research in Benign Urology (CAIRIBU) KURE Program at Duke, Dr. Siddiqui was awarded a CAIRIBU Collaboration Award for her proposal “Development of humanized mouse models for studies of the urogenital microbiome.” Dr. Siddiqui serves on the American Urogynecologic Society Board of Directors and is the specialty chief editor for female urology within the Frontiers in Urology journal.

Fan Lee, MD, is the recipient of the prestigious Martin-Peterson Scholars Award. Dr. Lee was recognized at the American College of Obstetricians and Gynecologists’ (ACOG) Annual Clinical & Scientific Meeting May 6-8, 2022. The award honors ACOG members who are relatively early in their global health careers for involvement in a global health women’s project or program with a clinical, advocacy or educational focus. At Duke, Dr. Lee will continue her research collaborations with UNC Project Malawi, as well as with low-resource communities in Durham.

Duke urogynecology and reconstructive pelvic surgery fellow Alejandro Gómez-Viso, MD, and resident Bobby May, MD, were awarded first place in the International Urogynecologic Association Video Competition for Fellows and Trainees. Along with faculty Cassandra Kisby, MD, MS, they created and submitted the video “Management of Partial Müllerian Agenesis,” which also has been accepted for presentation at the Society for Gynecologic Surgeons meeting March 19-22 in Tucson, Arizona. The video is posted on the IUGA video contest website page.

Maternal-fetal medicine specialist Samuel Bauer, MD, CPE, has been appointed to the 2022-23 National Quality Forum (NQF) Measure Applications Partnership workgroup as a women’s health representative. Dr. Bauer was nominated for the role by the Society for Maternal-Fetal Medicine. The workgroup is convened by the NQF, in partnership with the Centers for Medicare & Medicaid Services, to provide input to the U.S. Department of Health and Human Services on the selection of performance measures for public reporting and performance-based payment programs.

Whitney Robinson, PhD, MSPH, won the Society for Epidemiologic Research’s Carol J. Rowland Hogue Mid-Career Award. This prestigious award is given annually to recognize a mid-career scientist who has made an exceptional contribution to the practice of epidemiology.

Faculty Development Research Team Awarded $3 Million To Continue BIRCWH Program

Cindy Amundsen, MD, Roy T. Parker Endowed Professor of Obstetrics and Gynecology, principal investigator and director of the Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Program, and program assistants Friederike Jayes, DVM, PhD, and Rebecca Kameny, PhD, have been awarded $3 million over five years to continue the NIH/NICHD K12 program. The BIRCWH program promotes career development of junior faculty pursuing interdisciplinary basic, translational, behavioral, clinical and/or health services research relevant to the health of women and, where appropriate, consideration of sex as a biological variable on health and disease.

This award will lead to 25 years of continued funding for the BIRCWH program, a partnership with the Duke University School of Medicine and North Carolina Central University (NCCU).

The Duke/NCCU BIRCWH program will increase the availability of a diverse pool of highly trained women’s health researchers to address the nation’s biomedical, behavioral and clinical needs.
Duke Faculty Part of National CRDI Research Program

Evan Myers, MD, MPH, Walter L. Thomas Distinguished Professor of Obstetrics and Gynecology, who specializes in mathematical modeling and decision analysis, serves as a member of the steering committee for the Cancer Risk, Detection and Interception (CRDI) Research Program at Duke Cancer Institute (DCI). As a comprehensive cancer center designated by the National Cancer Institute (NCI), DCI must obtain NCI approval for new research programs, and the CRDI program was officially approved 2021 to focus on research that falls somewhere between cancer prevention and treatment.

In 2021, Duke University was one of three sites that was awarded a total of $4.4 million National Institutes of Health/NCI Cancer Intervention and Surveillance Modeling Network (CISNET) comparative modeling funding. Duke received $1.2 million in funding. "Through CISNET, an NCI-funded project to develop mathematical models of uterine cancer to help inform strategies for prevention and improved outcomes for uterine cancer, we’re working on tools to help address the growing incidence and mortality from uterine cancer. There are growing disparities in both incidence and mortality between Black and white women, both nationally and in North Carolina, and this fits very nicely with the CRDI program’s goals," said Dr. Myers.

Laura Havrilesky, MD, MHSc, is the principal investigator for CISNET.

Duke Researchers Develop Prediction Model for Opioid Prescribing Following Gynecological Surgery

Opioid overdoses have risen sharply since the COVID-19 pandemic began. Data shows that opioid misuse often starts with a legally obtained prescription. A team of researchers from Duke Ob/Gyn has developed a model that provides a way to predict individualized estimates of outpatient opioid use post-operatively at hospital discharge for a broad range of patients undergoing gynecologic surgery. This model uses seven factors to predict the number of opioid pills a patient will need following surgery.

The study, “Development and Validation of a Model for Opioid Prescribing Following Gynecological Surgery,” was published in the Journal of the American Medical Association Open Network.

Study authors are former Duke residents Isabel Rodriguez, MD, and Paige McKeithan Cisa, MD; current resident Julia Salinaro, MD; and Duke faculty Karen Monuszko, MD; Ashraf Habib, MBBCh, MSc, MHSc; J. Eric Jelovsek, MD, MMEd, MSDS; Laura Havrilesky, MD, MHSc; and Brittany Davidson, MD.

Geeta Swamy, MD, Participates in National Program for Representation in Clinical Trials, Recognized for Achievements

Geeta Swamy, MD, participated in a National Academies of Sciences, Engineering and Medicine Health and Medicine panel as part of a workshop about the inclusion of pregnant and lactating persons in clinical trials in June 2022.

Dr. Swamy is among the leadership from 88 U.S. colleges and universities joining forces to advance the principles and practices of open scholarship, in an effort to make scholarly output more transparent and beneficial to a broader community. The Higher Education Leadership Initiative for Open Scholarship cohort (HELIOS) is comprised of colleges and universities formed to create collective action to advance open scholarship across their campuses. HELIOS takes place within the larger context of the National Academies of Sciences, Engineering and Medicine’s Roundtable on Aligning Incentives for Open Science.

Dr. Swamy also was honored with a Duke Presidential Award in 2022 and was named the Haywood Brown, MD Distinguished Professor of Women’s Health. She is a national leader in promoting a culture of scientific integrity and transparency in research.

Clayton Alfonso, MD; Elizabeth Deans, MD, MPH; Beverly Gray, MD; and Jonas Swartz, MD, MPH, are board-certified in the new subspecialty of complex family planning. July 2022 was the first time the certifying exam was given.

Four Faculty Newly Board-Certified in Complex Family Planning Subspecialty

Duke Faculty Featured in National Media Coverage Following Roe v. Wade Decision

Faculty including Beverly Gray, MD, and Jonas Swartz, MD, MPH, have been featured extensively in media coverage about the Supreme Court decision overturning Roe v. Wade, leading up to the ruling, and in the aftermath.

Read complete coverage of Duke's Roe v. Wade coverage

Read more about Duke's CISNET funding
DUKE OB/GYN WAKE COUNTY EXPANSION

The interactive map is best viewed from a computer (not a tablet or mobile device). Visit bit.ly/DukeWakeExpansion

ALUMNI:
VISIT THE CARTER SOCIETY WEBSITE
bit.ly/CarterSocietyWebsite

SAVE THE DATE

2023 Carter Society Annual Meeting
Oct. 12-14, 2023
Durham, North Carolina

2024 Carter Society Annual Meeting
October 2024
Portland, Oregon

2025 Carter Society Annual Meeting
October 2025
Location TBD

Alumni: Please take a moment to let Duke Ob/Gyn know where you are now by filling out a brief online survey at bit.ly/ObGynAlumSurvey

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