

Obstetrics and Gynecology

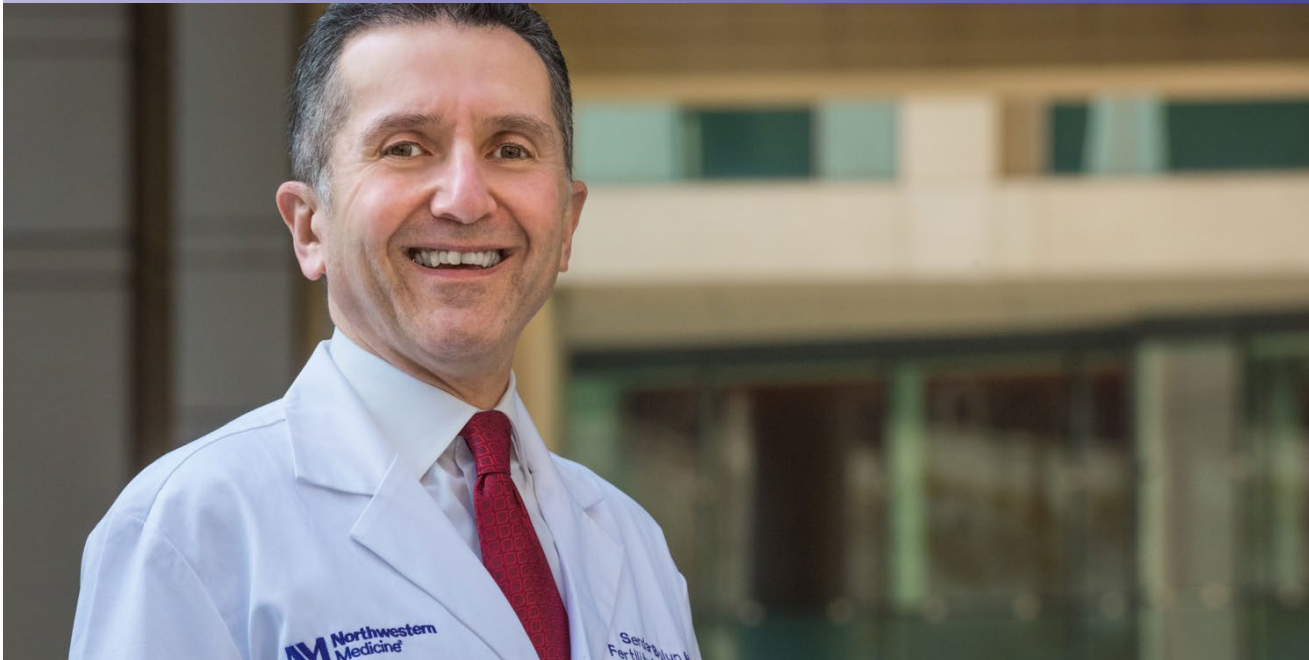
Fiscal Year 2023 Annual Report





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Letter From the Chair

The vision of the Northwestern Medicine Department of Obstetrics and Gynecology is to serve as a global leader in obstetrics, gynecology, reproductive health and healthcare delivery through innovations in person-centered care, research and education. This report is a summary of our accomplishments over the last fiscal year, September 2022 to August 2023.

We are proud of the highlighted success stories of our faculty, trainees, students and staff. We underscore our extraordinarily high inpatient and outpatient volumes, which reflect a large number of surgical procedures, outstanding training programs and leading-edge research in core areas of obstetrics and gynecology.

Our faculty, trainees and staff continue to collaborate extensively within Northwestern Medicine, including Northwestern University Feinberg School of Medicine, and outside institutions to advance diversity, equity and inclusion in health care. One of our most influential faculty in this pursuit is Melissa A. Simon, MD, MPH, who is a member of the National Academy of Medicine. Dr. Simon, Vice Chair of Research and founding director of the Center for Health Equity Transformation at the Feinberg School of Medicine, serves as the principal investigator (PI) of the Northwestern University Recruitment to Transform Under-Representation and achieve Equity (NURTURE) and characterizes a transformational leader for the entire academic medical center.

Thank you for taking the time to review this report.

Serdar E. Bulun

Serdar E. Bulun, MD (he/him)
Chair, Department of Obstetrics and Gynecology
John J. Sciarra Professor
Northwestern University Feinberg School of Medicine
Chief, Department of Obstetrics and Gynecology
Prentice Women's Hospital at Northwestern Memorial Hospital



Department Mission and Inclusivity Statement

Mission

We are a diverse community of healthcare professionals who:

- Partner with our patients to deliver world-class, comprehensive, and equitable obstetric and gynecologic care across the lifespan
- Lead groundbreaking research
- Drive women's health policy change
- Educate the healthcare leaders of tomorrow
- Champion reproductive and sexual health and well-being in a highly collaborative culture that values and promotes diversity, equity and inclusion

Diversity, Equity and Inclusion Statement

In the Department of Obstetrics and Gynecology at Northwestern University Feinberg School of Medicine, we believe that diversity, equity and inclusion enrich our department and strengthen our ability to better serve our patients and our community.

We acknowledge the role of medicine in the pervasive history of racism and inequity that contributes to ongoing healthcare disparities in our society. We recognize that science owes its development and advances to a long history of oppression and experimentation on people of color, and we honor individuals such as Anarcha, Lucy, Betsey and Henrietta.

We are committed to confronting these inequities by challenging ourselves to work towards an inclusive and just department and healthcare system through education, research, leadership and excellence in patient care. We celebrate diversity of race, ethnicity, culture, sex, sexual orientation, gender identity, disability, age, education and socioeconomic background.



Prentice Women's Hospital

[Prentice Women's Hospital of Northwestern Memorial Hospital](#) is a freestanding building and serves as the clinical and academic home for the Department of Obstetrics and Gynecology and its eight divisions.

Through its collaboration with [Ann & Robert H. Lurie Children's Hospital of Chicago](#), Prentice provides uniquely tailored medical care and academic opportunities as the largest birthing center in the Midwest. In 2018, this collaboration also fostered the creation of the [Chicago Institute for Fetal Health](#), which allows specialists from our Maternal-Fetal Medicine Division to participate in fetal surgery cases jointly performed at both hospitals.

A truly comprehensive hospital for female patients, Prentice also offers inpatient and outpatient breast care and a state-of-the-art breast imaging unit. The [Northwestern Medicine Maggie Daley Center for Women's Cancer Care](#) is an outpatient facility where our Gynecologic Oncology Division runs a patient-focused clinic with an adjacent infusion suite and procedure rooms. This division works collaboratively with specialists in breast surgery, clinical genetics, and hematology and oncology to deliver comprehensive care for patients with gynecologic and breast cancers.

Prentice Hospital by the Numbers (September 2022 to August 2023)

32

Labor and Delivery rooms



5

cesarean delivery rooms

8

pre-/post-operation rooms



More than

11,000

deliveries annually

15

operating rooms for female reproductive tissue procedures, including minimally invasive gynecologic surgery, urogynecology, gynecologic oncology, breast surgery and fetal surgery

More than

5,400

gynecologic surgeries annually, including more than

1,300

major procedures



Prentice Hospital by the Numbers (September 2022 to August 2023)

Total deliveries 11,273

Vaginal deliveries 8,213

Operative vaginal deliveries **338**

Operative vaginal delivery rate **4.1%**

Vaginal birth after cesarean (VBAC) rate **23.97%**

Cesarean deliveries 3,060

Cesarean delivery rate **27.14%**

Hysterectomy total 951

Abdominal **129**

Laparoscopic **447**

Robotic **304**

Vaginal **71**

Total gynecologic procedures 5,417

Gynecologic oncology procedures **717**

Benign gynecologic surgeries **3,322**

Minimally invasive gynecologic surgeries **919**

Urogynecologic procedures **459**

Total in vitro fertilization (IVF) Cycles 3,184

Egg retrievals **1,800+**

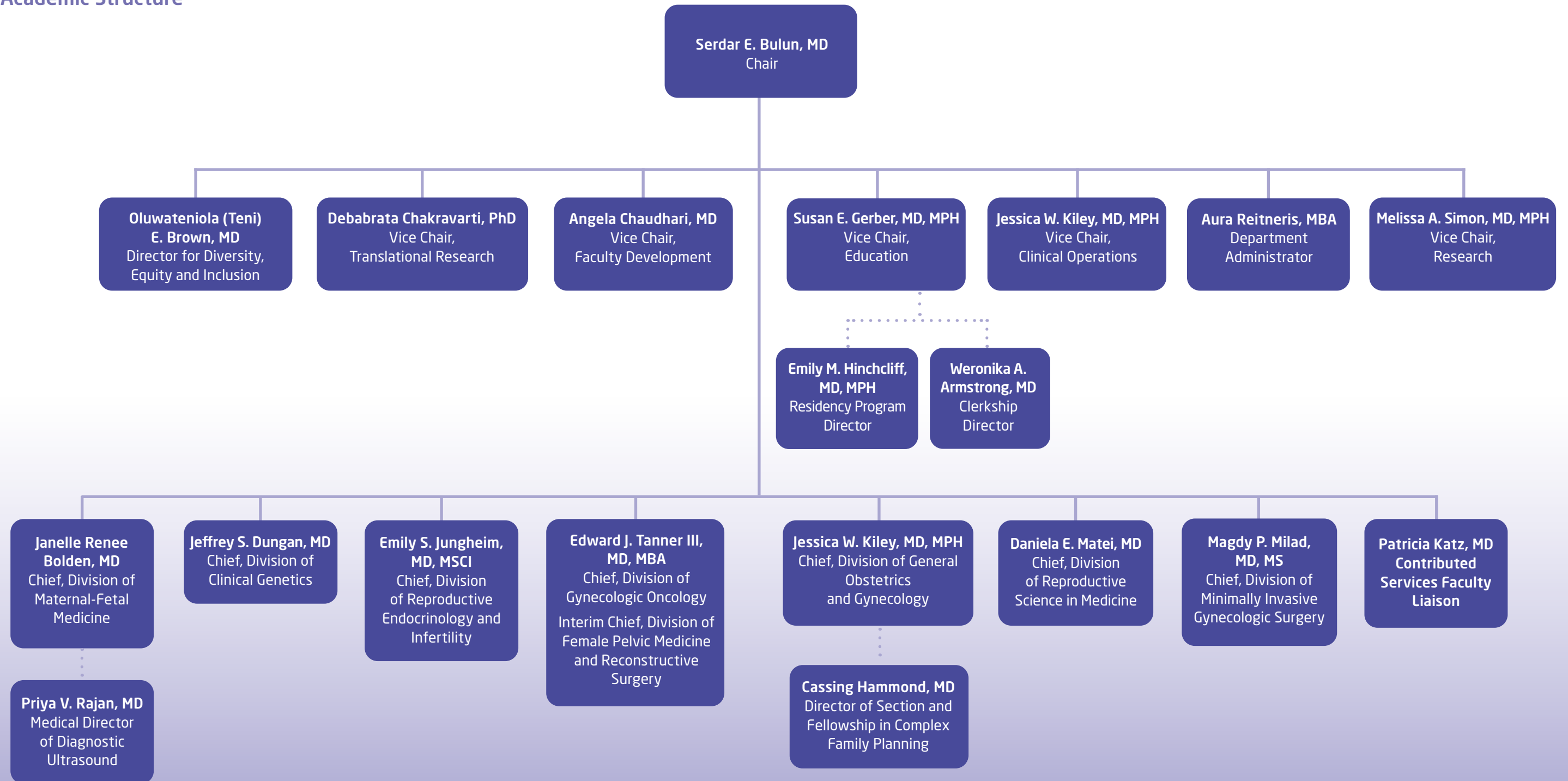
Frozen embryo transfers **1,384**

Intrauterine inseminations **3,184**

Cycles of chemotherapy in gynecological malignancies 1,900+

Obstetric and gynecologic ultrasound studies 55,000+

Department of Obstetrics and Gynecology Academic Structure



A close-up photograph of a person's hands holding a white pregnancy test stick with a blue cap. The person is sitting on a bed with a blue and white striped sheet. The word "Highlights" is overlaid in white text on the bottom left of the image.

Highlights

Family planning efforts

In 2023, the Complex Abortion Referral Line for Access (CARLA) was established by a partnership between Northwestern Medicine, UI Health (University of Illinois Hospital & Health Sciences System), University of Chicago, Rush University Medical Center and the Chicago Abortion Fund.

CARLA was developed so that patients who need a hospital-based abortion can receive safe and compassionate care in a timely manner. Patients with medically complex cases must navigate between clinics and hospital-based physicians; CARLA nurses work with representatives from the Chicago Abortion Fund to meet their unique needs. They can also assist patients with finding food, lodging and child care. Launched in August 2023, CARLA is led by Laura Laursen, MD, MS (Rush University Medical Center), and Jonah Fleisher, MD, MPH (UI Health).

Cassing Hammond, MD, represents Northwestern Medicine as an executive board member for CARLA, in conjunction with his leadership role in the Illinois Coalition of Abortion Providers (ICAP). As a director of ICAP, Dr. Hammond combines his expertise in complex family planning with that of maternal-fetal medicine specialists, emergency medicine clinicians, advanced practice clinicians and representatives of state government agencies and national organizations. ICAP membership includes clinicians from all major hospitals and community-based health care organizations in Illinois.

Center for Health Equity Transformation

The Center for Health Equity Transformation (CHET) aims to improve health for all by exposing root causes of health inequities and serving as a hub that pushes boundaries in research, education, workforce development and community engagement.

CHET defines health equity as the prioritization of historically marginalized and disenfranchised groups to extend and provide the fair and just opportunity for access and use of quality health and non-health social services, such as housing and education, without discrimination, racism or additional undue burdens that create and sustain obstacles to health. At CHET, we are led by the guiding principle of centering our collective humanity. Each of our projects confronts inequitable and unjust systems and uses the power of research and implementation science to reshape or, where necessary, replace them for the betterment of all.

CHET's research addresses many racial health inequities, especially in women's reproductive and maternal health and well-being. Funded by the National Institute on Minority Health and Health Disparities (NIMHD), the [OPTIMIZE research study](#) is testing a comprehensive perinatal care checklist with patient navigation support. Further, the [Well-Mama Doula Project](#) is supported by a 5-year grant from NIMHD to enhance doula care support for people of color.

Complementing these studies, the [Navigating Wellness](#) tool aims to empower library patrons with accessible health information that they can use to seek out preventive health services, while also empowering librarians to support their patrons' search for health information. Additionally, the Chinatown Patient Navigation Program (PN) 1.0 program, which ran from 2013 to 2019, enrolled women in the Greater Chinatown area for mammograms and Pap tests. The new PN 2.0 program enrolls both men and women for all preventive cancer screenings, with a focus on addressing social



determinants of health that may prevent them from achieving the best possible health.

The Northwestern University Cancer Health Equity Research Specialized Program of Research Excellence ([NU-CHERS](#)) is a National Cancer Institute-funded project focused on generating scientific findings and establishing sustainable, collaborative, academic and community infrastructure that will serve as the foundation for a comprehensive translational cancer research program focused on gynecologic cancer health disparities. The Metals Project, which began in 2022, recruited 200 healthy volunteers from community events throughout Chicago; participants agreed to provide buccal swabs and sociodemographic data in support of the research initiative. The Chicago Cancer Health Equity Collaborative, now in its eighth year, continues to successfully conduct transdisciplinary cancer health disparities research projects, engage Chicago communities that are disproportionately impacted by cancer health inequities, and coordinate research education and mentoring opportunities to advance a

pipeline of diverse students and early-career faculty in cancer research careers.

CHET also conducts many projects and initiatives that seek to advance equity in health care-related fields. Since 2019, the Northwestern University Minority Health and Health Disparities Research Training Program (NU-MHRT), funded by a T37 grant from the National Institutes of Health (NIH), has supported 33 trainees from underrepresented groups in medicine and science at the undergraduate, post-baccalaureate, predoctoral and postdoctoral levels. Similarly, the Women's Reproductive Health Research Career Development Program continues its long-term goal of providing an exceptional research training program for the career development of obstetrician-gynecologists to become physician scientists who can conduct advanced translational research.

Project Safe Space partners with four local domestic violence organizations to develop a concise and informative training program for frontline healthcare professionals on how to identify, support, and refer victims of intimate partner violence. The NURTURE program seeks to accelerate institutional culture change toward inclusive excellence through innovative institutional initiatives in hiring, mentoring, promotion and tenure, evaluation, and institutional accountability to ensure that all faculty can thrive.

As we celebrate CHET's remarkable research over the past year, it is important to reflect on the power of unity and empathy for our collective humanity in driving progress. We look forward to another year of advancing health equity research and advocating for a more equitable future for all.

Diversity, Equity and Inclusion Committee

The Department of Obstetrics and Gynecology is committed to prioritizing diversity, advancing equity and cultivating inclusion as we serve our patients and community.

Over the last few years, we have made steady progress in establishing an infrastructure for sustainable and impactful efforts for our faculty, trainees, staff and patients. The OB-GYN Diversity, Equity and Inclusion (DEI) Committee counts as members more than 30 faculty, trainees, nursing, staff and research personnel.

In the past year, the committee has:

- Increased engagement in DEI trainings and conferences through its role in overseeing DEI programming for the department
- Provided departmental representation to key conferences to recruit individuals from populations that are underrepresented in medicine
- Planned and hosted two department Health Equity Rounds, a multidisciplinary conference to discuss instances where bias and racism affected patient care and identify follow-up action items to manage change
- Curated two active bystander trainings for the entire department with two small-group practice sessions

Reflecting on the legacy of Tacoma A. McKnight, MD

A career spanning four decades of service to patients, students and trainees concluded with the retirement of Tacoma A. McKnight, MD, in 2023.

Dr. McKnight was the first Black female faculty member as well as the first Associate Dean for Minority Affairs at the Feinberg School of Medicine. She has been granted emeritus status for her commitment to undergraduate and graduate education and promotion of careers for those underrepresented in medicine.

Dr. McKnight began her career on the Northwestern University Evanston campus as an undergraduate in the honors program in medical education. She earned her medical degree in 1983 and completed her OB-GYN residency before becoming a faculty member in 1987. At the Prentice Ambulatory Care (PAC) Clinic, Dr. McKnight was the medical director from 2005 to 2021, the longest anyone has served in the role.

[The Tacoma A. McKnight, MD Education and Research Fund](#) has been created to honor Dr. McKnight's accomplishments. The fund will support DEI initiatives in education, research, and physician recruitment and retention in the OB-GYN department.



Prentice Ambulatory Care Clinic

The PAC Clinic was established in 1975, concurrent with the initial opening of Prentice Women's Hospital and Maternity Care Center under then chairman, John J. Sciarra, MD, PhD. Since its inception, the PAC Clinic has maintained its goals of promoting care access to the community as well as contributing to outpatient education for residents and students in the OB-GYN department. Over the years, many programs and quality improvement initiatives have developed from work initiated in the PAC Clinic to meet the needs of the patient population. These include the establishment of clinics for obstetric infectious disease, fellow-run high-risk obstetric care and teen pregnancy, and recently the implementation of group prenatal care sessions following the Centering Pregnancy model. Run by residents and supervised by attending physicians, the PAC Clinic continues to embrace a mission of promoting equity while maintaining healthcare access.

Meeting the unique needs of LGBTQ+ patients



Reproductive and fertility care

The Division of Reproductive Endocrinology and Infertility (REI) offers a full range of options to support family building and fertility preservation needs for everyone. For patients who need to preserve their gametes before starting gender-affirming hormones, the Northwestern Medicine Fertility Preservation Program offers guidance and support in making informed decisions throughout their care. Kara N. Goldman, MD, the program's medical director, and Kristin Smith, the program manager, serve patients from across Chicagoland. Sarah Bazzetta, an advanced practice provider, recently joined the program to improve patient access to care.

The Center for Fertility and Reproductive Medicine is committed to supporting LGBTQ+ patients seeking to grow their family, including employees of Northwestern Medicine. Team members are proud of their efforts to improve access and insurance coverage for LGBTQ+ employees needing fertility treatment.

On a national level, team members serve in leadership roles within the American Society for Reproductive Medicine (ASRM) to advocate for LGBTQ+ patients and their access to reproductive care.

Medical care for transgender patients

Comprehensive and inclusive healthcare services are available to transgender, gender nonbinary, and LGBTQ+ patients. Our obstetricians, gynecologists, gynecologic surgeons and reproductive endocrinologists play critical roles as founding members of the Gender Pathways Program at Northwestern Medicine, which offers gender-affirming care that spans medical, surgical and mental health services. Our commitment is to provide individualized care based on each patient's personal transition goals and to understand the needs of our gender nonconforming and LGBTQ+ community.

The tools we have to reach those goals include the following:

Expertise: Our department has experienced healthcare professionals who specialize in gender-affirming and LGBTQ+ care. Physicians, nurses and support staff are trained to provide trauma-informed care that is respectful and sensitive to the needs of the patient.

An LGBTQ+-friendly environment: A welcoming and inclusive environment for our LGBTQ+ patients includes using and documenting pronouns and names, respecting each patient's privacy and recognizing the specific healthcare needs of the LGBTQ+ population.

Multidisciplinary gender-affirming care: The Gender Pathways Program is a robust multidisciplinary program that has a large number of healthcare professionals across the region to address the needs of transgender and gender nonconforming patients. They include:

- Primary care physicians trained in gender-affirming care
- Endocrinologists providing hormonal therapies
- Surgical specialists who counsel and perform gender-affirming procedures
- Reproductive endocrinologists with expertise in fertility preservation
- Speech language pathologists

Mental health resources: Robust mental health resources, counseling services, and evaluations are available to help patients navigate identities and identify transition goals.

Education and resources: Northwestern Medicine is committed to continued learning and education from community members, as well as ongoing training of our healthcare workforce regarding the needs of our gender nonconforming and LGBTQ+ patients.

The Gender Pathways Program receives more than 400 patient visits every year. Our department had more than 150 office visits in the last year from patients who wanted to discuss surgical transition, family building and management of gynecologic conditions.

Chicago Institute for Fetal Health

The Chicago Institute for Fetal Health is a regional leader in complex fetal surgery. The institute is a collaboration between [Ann & Robert H. Lurie Children's Hospital of Chicago](#) and Prentice, and provides antenatal counseling and care, plus intervention and management.



The multidisciplinary team approach allows for both the pregnant patient and fetus to receive the best possible care.

In FY23, 3,410 multidisciplinary consultations were performed for conditions such as:

- Various neurological abnormalities
- Complicated twin pregnancies
- Complex cardiac conditions
- Bladder outlet obstruction

In FY23, a total of 41 procedures were performed, including:

- Fetoscopic endoluminal tracheal occlusion for airway obstruction
- Open and fetoscopic myelomeningocele repairs
- Selective fetoscopic laser photocoagulation for complex twin pregnancies
- EXIT procedures for various chest masses
- Bladder shunt procedures

Contributed services faculty

The contributed services faculty (CSF) of Prentice comprises 15 self-employed practice groups representing approximately 100 faculty members who are renowned for providing outstanding care throughout the Chicago metropolitan area.

With offices in the northern and western suburbs as well as near the medical campus, their widespread outreach means patients can receive diagnostic imaging, laboratory, and other ancillary services at Northwestern Medicine locations closer to where they live and work.

The CSF of Prentice represent an impressively collaborative group of private practices and contribute significantly to our academic mission, including the recruitment of patients for important clinical research.

Working alongside the employed faculty generalists and subspecialists of Prentice, CSF physicians participate in resident and medical student education, serving as lecturers, mentors and preceptors for the Feinberg School of Medicine. Many of these faculty serve on hospital committees and the boards of Northwestern Memorial Hospital, including a past chief of the medical staff.



Faculty spotlight: Mary Ellen G. Pavone, MD, MSCI

Professor of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility
Medical Director of IVF, Northwestern Medicine Center for Fertility and Reproductive Medicine

As a clinician, Mary Ellen G. Pavone, MD, MSCI, is dedicated to taking care of patients with infertility or recurrent miscarriage and those who wish to preserve fertility. She also focuses on advanced hysteroscopic procedures for women who want to maintain their reproductive potential. Dr. Pavone is on the editorial board of *Journal of Assisted Reproduction and Genetics*, *Frontiers in Endocrinology and Fertility and Sterility*, for which she has been honored as a Reviewer of the Year and a star reviewer. She is also an ad hoc reviewer for many other prominent journals in the area of reproductive medicine.

As a researcher, Dr. Pavone investigates infertility, recurrent pregnancy loss and fertility preservation. She has received grants from the ASRM and Friends of Prentice and is currently a co-investigator on NIH-sponsored research with Francesca E. Duncan, PhD, a distinguished ovarian biologist. They work together on translational projects that focus on ovarian aging. In the Master of Reproductive Science in Medicine program, Dr. Pavone serves as a research mentor and the course director for a popular class that reviews various aspects of assisted reproductive technology. Dr. Pavone's upcoming additional service includes the 2024 ASRM program committee, Society for Reproductive Endocrinology and Infertility, and co-director of the fellows' education day at the 2023 Oncofertility Consortium meeting.



Faculty spotlight: Mazhar Adli, PhD

Associate Professor of Obstetrics and Gynecology, Division of Reproductive Science in Medicine
Principal Investigator of Adli Lab, Robert H. Lurie Comprehensive Cancer Center

Mazhar Adli, PhD, established a laboratory to research how genome-wide DNA code or epigenetic information leads to aberrant development, such as tumor progression and chemoresistance. The goal is to identify disease-specific vulnerabilities and novel combinatorial therapeutic targets. To achieve this, Dr. Adli combines his unique expertise in genome mapping (bulk RNA, DNA, and chromatin mapping and single-cell multi-omics) with CRISPR-based genome manipulation strategies. His lab has been at the forefront of developing and utilizing CRISPR-based genome editing technologies.

Dr. Adli is the PI of several projects with federal grants, including an R01 and a large-scale MorPhic consortium grant whose goal is to characterize all human genes functionally. [Adli Lab](#) is reengineering the genome in human-induced pluripotent stem cells to characterize essential human genes through inducible and reversible degron technology. Additionally, his laboratory uses genome mapping and targeted and high-throughput CRISPR-based genome manipulation to identify the drivers of chemoresistance in ovarian cancer and reveal the molecular circuitry downstream of genetic abnormalities in fibroid tumors. Dr. Adli is a standing member of the NIH Cancer Genetics Study Section and the chair of the steering committee of the MorPhic consortium.



Faculty spotlight: Emma L. Barber, MD, MS

Assistant Professor of Obstetrics and Gynecology, Division of Gynecologic Oncology

Emma L. Barber, MD, MS, is a gynecologic oncologist, health services researcher and clinical trialist whose research focuses on cancer prevention, control and survivorship. Her goal is to improve the lives of people with gynecologic cancers by developing novel cancer prevention strategies and mitigating the toxicity of existing gynecologic cancer therapies so patients can live longer with a better quality of life.

Dr. Barber is the PI of the following NIH-funded studies:

- **Fit4Treatment:** A large multisite study funded by the National Institute on Aging that seeks to use physical activity to reduce frailty, decrease chemotherapy toxicity and improve quality of life among older adults with gynecologic cancer currently undergoing systemic cancer therapy.
- **Metformin for Endometrial Cancer Prevention:** A large multicenter randomized clinical trial funded by the National Cancer Institute that aims to test the combination of metformin and megestrol acetate on the proliferation of endometrial intra-epithelial neoplasia with the goal of preventing progression to endometrial cancer.
- **Fit4Surgery:** A study funded by the National Institute on Aging of physical activity as a novel form of prehabilitation among older adults with ovarian cancer who undergo chemotherapy before surgery.

Dr. Barber also maintains an active clinical practice and was recently honored by the Nora Cooney Marra Compassionate Care Award, which is awarded once a year to a single clinician from the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.

Faculty expansions

**Fariha F. DiPasquale, MD**

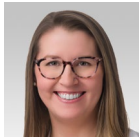
Clinical Instructor of Obstetrics and Gynecology (OB Triage)

December 2022

Medical school: Northwestern University Feinberg School of Medicine

Residency: New York Presbyterian Hospital (Columbia Campus)

Clinical interests: Adolescent health, integrative medicine, menopause, women's health, sexually transmitted diseases, weight management

**Kathleen A. Drexler, MD**

Assistant Professor of Obstetrics and Gynecology (Maternal-Fetal Medicine)

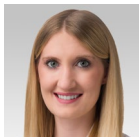
August 2023

Medical school: Baylor College of Medicine

Residency: McGaw Medical Center of Northwestern University

Fellowship: University of North Carolina Hospitals

Clinical interests: Prenatal diagnosis, diabetes in pregnancy, preconception counseling, prevention of preterm birth, multiple gestations, medical education

**Stephanie A. Fisher, MD, MPH**

Assistant Professor of Obstetrics and Gynecology (Maternal-Fetal Medicine)

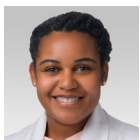
July 2023

Medical school: University of Miami Miller School of Medicine

Residency: Washington University/B-JH/SLCH Consortium

Fellowship: McGaw Medical Center of Northwestern University

Clinical interests: HIV and other infectious diseases in pregnancy, cardiometabolic disease in pregnancy, preterm birth, fetal growth restriction, autoimmune and rheumatologic disease in pregnancy

**Jacqueline C. Hairston, MD**

Assistant Professor of Obstetrics and Gynecology (Maternal-Fetal Medicine)

September 2023

Medical school: Icahn School of Medicine at Mount Sinai

Residency: McGaw Medical Center of Northwestern University

Fellowship: New York Presbyterian Hospital (Columbia Campus)

Clinical interests: Fetal anomaly, high-risk obstetrics, hypertension, multiple gestations, preterm labor, ultrasound, amniocentesis

**Tiphany D. Jackson, MD**

Health System Clinician, Department of Obstetrics and Gynecology (General Obstetrics and Gynecology)
January 2023

Medical school: Loyola University Stritch School of Medicine

Residency: Advocate Health Care (Advocate Illinois Masonic Medical Center)

Clinical interests: Contraception, gynecologic surgery, well women care, women's reproductive issues, obstetrics, prenatal care

**Douglas H. Luchristt, MD, MPH**

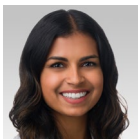
Assistant Professor of Obstetrics and Gynecology (Female Pelvic Medicine and Reconstructive Surgery)
September 2023

Medical school: Northwestern University Feinberg School of Medicine

Residency: McGaw Medical Center of Northwestern University

Fellowship: Duke University Hospital

Clinical interests: Female urinary incontinence, cystocele/rectocele, minimally invasive surgery, pelvic floor disorders, pelvic organ prolapse, urogynecology

**Shobha Sridhar, MD**

Instructor of Obstetrics and Gynecology (General Obstetrics and Gynecology)
September 2023

Medical school: St. Louis University School of Medicine

Residency: MedStar Health/Washington Hospital Center

Clinical interests: Reproductive health, contraception, minimally invasive gynecologic surgery, abnormal uterine bleeding, fibroids



NIH Ranking by Total Funding



Source: Blue Ridge Institute for Medical Research

- **No. 2 among all OB-GYN departments in the U.S. in NIH funding for 2022***
- **\$14,369,317 in NIH funding**
- **\$23,522,453 in total grant funding**
- **68 proposals submitted, totaling \$93,601,514**
- **More than \$250,000 in grants from [Friends of Prentice](#)**

*The most recent available ranking at the time of writing (source: Blue Ridge Institute for Medical Research).



Education

Residency

The Obstetrics and Gynecology Residency Program provides outstanding comprehensive training and remains ranked among the best residencies in the country. Our residency offers clinical experience at Prentice and John H. Stroger Jr. Hospital of Cook County, the primary safety-net hospital for the city of Chicago.

These two institutions give residents the opportunity to learn across the full spectrum of OB-GYN needs and to provide excellent care to the diverse patient population of Chicago, including people who have historically been underserved.

The residency program is now led by Emily M. Hinchcliff, MD, MPH, a gynecologic oncologist with extensive educational experience. She served as the associate program director for Susan E. Gerber, MD, MPH, who led the residency program for the previous 10 years. Our residents are an exceptional and diverse group of trainees from across the nation and the world, representing the next generation of advocates and leaders in the field of OB-GYN.

Education

Ranked No. 8 in Best Medical Schools for OB-GYN

Northwestern University Feinberg School of Medicine by U.S. News and World Report, 2023

Residency

Ranked No. 2 by Doximity Residency Navigator

Fellowships

Complex Family Planning
2 fellows

Female Pelvic Medicine and
Reproductive Surgery
3 fellows

Gynecologic Oncology
3 fellows

Maternal-Fetal Medicine
3 fellows

Minimally Invasive
Gynecologic Surgery
2 fellows

Reproductive Endocrinology
and Infertility
3 fellows

**Significant growth in
gynecological surgical volume
for trainees over the past
five years.**



Residency program facts:

918

total applications for 12 PGY-1 positions

48

residents

100% board pass rate

for qualifying exam for the past 5+ years

97% board pass rate

for certifying exam for the past 5+ years

Approximately 75%

of graduating residents apply and
successfully match for competitive
subspecialty fellowships

48%

of residents identify as belonging to
a group of people underrepresented
in medicine

Advanced clerkship

For fourth-year medical students in the Department of Obstetrics and Gynecology, Feinberg School of Medicine offers many rotation options, including taking an elective or a subinternship.

Electives are available in:

- Complex Family Planning
- Reproductive Endocrinology and Infertility
- Reproductive Genetics
- Urogynecology
- Minimally Invasive Gynecology
- Office Practice

A subinternship differs from a fourth-year elective by expecting students to act as interns do: assuming responsibility for admitted patients, practicing order writing, rounding and even taking overnight calls. To fulfill the subinternship requirement, Feinberg School of Medicine students can choose either Maternal-Fetal Medicine or Gynecologic Oncology. Each month, up to four students are accepted for a subinternship.





Division Updates

The divisions within the Northwestern Medicine Department of Obstetrics and Gynecology provide specialized education and training programs, conduct research and provide patient care through our affiliated hospitals and care sites.

Clinical Genetics

Division summary

The [Division of Clinical Genetics](#) comprises three physicians, all board-certified in clinical genetics and obstetrics and gynecology, and 10 genetic counselors. The division provides two distinct clinical services: reproductive genetics and cancer genetics. The division is closely integrated with the Graduate Program in Genetic Counseling at Northwestern University. In addition to providing clinical rotations to residents and students in OB-GYN, we serve as a site for the newly approved Clinical Genetics residency in conjunction with [Ann & Robert H. Lurie Children's Hospital of Chicago](#).

Faculty

Jeffrey S. Dungan, MD
(Division Chief)

Lee P. Shulman, MD

Andrew F. Wagner, MD



Innovation and highlights

- Grew the Early Detection in Genetics (EDGe) Program, a multidisciplinary clinical program for surveillance of people with hereditary cancer predisposition syndromes, funded by the Woman's Board of Northwestern Memorial Hospital
- Expanded cancer genetic services across multiple departments and Northwestern Medicine care centers
- Provided genetic counseling services to patients seeking preimplantation genetic testing in collaboration with our Reproductive Endocrinology and Infertility Division
- Initiated a genetic evaluation clinical program for stillbirth

FY23 key achievements



Education

Our division trains all Northwestern University third-year residents for one month.

We serve as a clinical training site for 16 to 20 genetic counseling graduate students every year.

We present multiple lectures throughout the year to students and residents about cancer and reproductive genetics.

We provide clinical training for fellows in breast surgery and molecular genetics/pathology, and physician assistant students.



Clinical

Successfully continued providing telehealth consultations, resulting in increasing patient access to genetic counseling services

Initiated an EDGe clinic for patients with BRCA genetic mutations



Research

Reproductive decision-making among patients who have tested positive for BRCA mutations

Impact of ovarian cancer detection and surveillance program

Initiation of multidisciplinary stillbirth programs

**Clinical Genetics team**

Left to right: Jeffrey S. Dungan, MD; Lee P. Shulman, MD; Andrew F. Wagner, MD

Key faculty awards and honors**Jeffrey S. Dungan, MD**

Chair, American College of Medical Genetics and Genomics Professional Practice and Guidelines Committee

Andrew F. Wagner, MD

President, Central Association of Obstetricians and Gynecologists
Department of OB-GYN Undergraduate Medical Education Silver Award

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Dungan JS, Klugman S, Darilek S, Malinowski J, Akkari YMN, Monaghan KG, Erwin A, Best RG, ACMG Board of Directors. [Noninvasive prenatal screening for fetal chromosome abnormalities in a general-risk population: an evidence-based clinical guideline of the American College of Medical Genetics and Genomics \(ACMG\)](#). *Genet Med*. 2023;25(2):100336.

Ehrich M, Sagaser KG, Porreco RP, Bellesheim D, Patil AS, **Shulman LP**, Van Den Boom D. [Capillary blood collection: exploring a new method to promote noninvasive prenatal screening access](#). *Am J Obstet Gynecol*. 2023;229(1):75-76.

Female Pelvic Medicine and Reconstructive Surgery

Division summary

The [Division of Female Pelvic Medicine and Reconstructive Surgery](#) currently includes four board-certified subspecialty surgeon-scientists. The team members provide high-volume patient care across multiple hospital sites with excellent patient satisfaction scores and hold numerous institutional leadership positions, demonstrating a commitment to establishing standards for education, research and health equity.

The division's [Integrated Pelvic Health Program](#) is a key clinical integration program within the Northwestern Medicine Obstetrics and Gynecology Department. The goal of integration is to ensure that people with pelvic floor disorders have the same patient experience, outcomes and access to research participation at any location across Northwestern Medicine. Clinical protocols, best practices and research resources are shared between sites collaboratively.

Faculty

Edward J. Tanner III, MD, MBA
(Interim Division Chief)



Carol Emi Bretschneider, MD, MST

Oluwateniola (Teni) E. Brown, MD
(Director of Diversity, Equity and Inclusion)

Julia Geynisman-Tan, MD

Douglas H. Luchristt, MD, MPH



Clinical

In April 2023, Oluwateniola (Teni) E. Brown, MD, began operating at Northwestern Medicine Palos Hospital.

A multidisciplinary team of urogynecologists, physical therapists and advanced practice providers make up the [Peripartum Evaluation and Assessment of the Pelvic Floor Around Delivery \(PEAPOD\) Clinic](#). The PEAPOD Clinic offers comprehensive care to patients with birth injuries and has set the standard for high-impact research studies focused on preventing birth injuries and improving birth-related pelvic floor outcomes.

The use of Enhanced Recovery After Surgery protocols resulted in more than 99% of surgical patients going home on the day of surgery.

The [Education, Research, Advocacy, and Service \(ERASE\) Trafficking Clinic](#), founded by Julia Geynisman-Tan, MD, is Chicago's only health clinic providing comprehensive gynecologic care to individuals who have survived, or are surviving, sexual or labor exploitation. This transdisciplinary care is coordinated through collaboration with internal medicine, psychiatry and pediatrics.

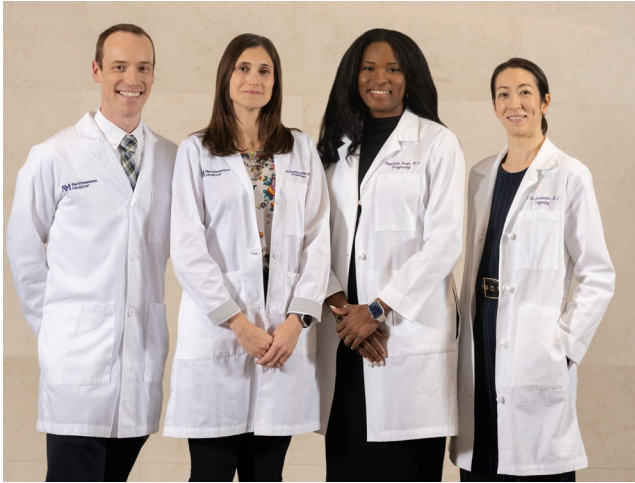
FY23 key achievements



Education

Matched an excellent Female Pelvic Medicine and Reconstructive Surgery fellow candidate and accepted a second candidate for the 2023-2024 academic year outside the match

Applied for and received a complement increase authorization for fellowship year 2025-2026



Female Pelvic Medicine and Reconstructive Surgery team
Left to right: Douglas H. Luchristt, MD, MPH; Julia Geynisman-Tan, MD; Oluwateniola (Teni) E. Brown, MD; Carol Emi Bretschneider, MD, MST
 [Not Pictured: Edward J. Tanner III, MD, MBA]



Research

All faculty members are engaged in clinical and translational research related to preventing and treating pelvic floor disorders. The division is actively involved in four federally funded studies and multiple investigator-initiated, industry funded grants.

- Julia Geynisman-Tan, MD, is a funded co-investigator on a U18 from the Agency for Healthcare Research and Quality to facilitate Northwestern Medicine primary care screening for urinary incontinence.
- Dr. Geynisman-Tan is a funded co-investigator and Oluwateniola (Teni) E. Brown, MD, a co-investigator on an R01 from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for nonsurgical treatment of lower urinary tract symptoms in racial and ethnic minority women.
- Dr. Geynisman-Tan is a funded co-investigator and Dr. Brown a co-investigator on an U01 from NIDDK, the Prevention of Lower Urinary Tract Symptoms Consortium.
- Drs. Brown and Geynisman-Tan are co-investigators in the NIDDK Lower Urinary Tract Research Network.

Key faculty awards and honors

Carol Emi Bretschneider, MD, MST
[Pepper Scholar Award](#)

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Brown O, Mou T, Tate M, Miller E, Debbink M.
[Considerations for the use of race in research in obstetrics and gynecology.](#) *Clin Obstet Gynecol.* 2022;65(2):236-243.

Geynisman-Tan J, Mou T, Mueller MG, Kenton K.
[Neuromuscular urethral function and urethral urodynamic parameters between urgency and stress incontinence do not differ.](#) *Int Urogynecol J.* 2022;33(4):871-876.

Luchristt D, Kenton K, **Bretschneider CE.** [Outcomes of vaginal and laparoscopic hysterectomy with concomitant pelvic reconstructive surgery.](#) *Int Urogynecol J.* 2022;33(11):3005-3011.

Mou T, **Nelson L**, **Lewicky-Gaupp C**, **Brown O.**
[Opportunities to advance postpartum pelvic floor care with a health equity-based conceptual framework.](#) *Clin Obstet Gynecol.* 2023;66(1):86-94.

General Obstetrics and Gynecology

Division summary

The [Division of General Obstetrics and Gynecology](#) is made up of 13 clinical faculty members who practice high-volume, broad-scope gynecology and obstetrics. These faculty members support all aspects of medical education and training in the department and across the institution.

In FY23, the division performed 1,600 deliveries and large volumes of inpatient and outpatient gynecologic procedures. The division also features distinct programs in:

- Pediatric gynecology
- Adolescent health
- Cancer screening and detection
- Transgender care
- Vulvar conditions
- Menopause
- Student health

Four faculty are fellowship-trained Complex Family Planning subspecialists. The Section of Complex Family Planning is within the division.

All faculty in the Division are committed educators, working closely with residents and students in all settings. Division members teach on Labor and Delivery, in the gynecology operating rooms, and in the clinics. Several faculty members serve as primary mentors to resident research projects, career mentors, surgical performance coaches and “life coaches” for the residents.

Division faculty are recognized leaders in the field, and many have received distinctive honors from professional societies. Each faculty member has important roles in our department, the local community and the national arena. They hold positions as:

- Medical society board members
- Elected officers of the American College of Obstetricians and Gynecologists (ACOG)
- Grant reviewers
- Medical directors of hospital service units
- Clerkship directors

Faculty

Jessica W. Kiley, MD, MPH
(Vice Chair of Clinical Operations and Division Chief)



Weronika A. Armstrong, MD (Clerkship Director)

Arjeme D. Cavens, MD
(Medical Director of Prentice Ambulatory Care)

Cassing Hammond, MD (Medical Director of Section of Complex Family Planning)

Katerina Hoyt, MD

Marybeth Lore, MD

Leanne R. McCloskey, MD, MPH
(Medical Director of Postpartum; Fellowship Director of Complex Family Planning)

Ismely F. Minaya, MD

Catherine A. Nosal, MD

Melissa A. Simon, MD, MPH
(Vice Chair of Research)

Shobha Sridhar, MD

Ashley M. Turner, MD, MSCl

Kristen R. Venuti, MD

Amber N. Watters, MD
(Medical Director of Labor and Delivery)

- Editorial board members
- American Board of Obstetrics and Gynecology oral examiners
- Legislative advocacy leaders

Innovation and highlights

- In honor of her lifelong contributions to medicine and medical education, the Tacoma A. McKnight, MD Education and Research Fund was established to support diversity, equity, and inclusion initiatives in education and research within the Department of Obstetrics and Gynecology at Northwestern University's Feinberg School of Medicine.
- Amber N. Watters, MD, collaborated with the Information Services Department to develop a new app called LaborLink to allow at-your-fingertip access to fetal heart tracings. Accessibility to this information via mobile app is anticipated to improve patient care, physician workflows and clinician well-being.

FY23 key achievements



Education

Division members serve as core faculty in the Prentice Ambulatory Care (PAC) Clinic, the residency continuity clinic, a major feature of the training program. Teaching also emphasizes important principles like social determinants of health, health disparities and systemic bias. Faculty members brought educational innovation in FY23 as they worked with residents to enhance the curriculum.

Weronika A. Armstrong, MD, and Ismely F. Minaya, MD, mentored Anna Maria Young Pacheco, MD (PGY-3 resident), in creating and implementing an ultrasound simulation curriculum for OB-GYN clerkship students on the topic "Pregnancy of Unknown Location."

Kristen R. Venuti, MD, developed a virtual session about pregnancy for the second-year medical students' reproductive/genitourinary curriculum. Dr. Venuti also co-presented with an OB-GYN resident at Med Ed Day about the new cesarean delivery curriculum.

OB-GYN undergraduate medical education leadership:

- Weronika A. Armstrong, MD, Clerkship Director
- Marybeth Lore, MD, Associate Clerkship Director
- Ismely F. Minaya, MD, Director of Clerkship Assessment

OB-GYN residency program leadership:

- Kristen R. Venuti, MD, Associate Program Director

The Section of Complex Family Planning and its educational programs are part of the Division of General OB-GYN:

- Leanne R. McCloskey, MD, MPH, Fellowship Director
- Ashley M. Turner, MD, MSCI, Ryan Residency Training Program Director



Clinical

Redesigned our ambulatory care team model to support better continuity of care and access for patients.

Expanded services in the northern suburbs to provide comprehensive obstetrical and gynecologic services.

Led quality and process improvement initiatives.



Research

Received new grants, such as those awarded by Friends of Prentice, and collaborated on projects funded by the Bill and Melinda Gates Foundation.

Junior faculty members published original research.

Melissa A. Simon, MD, MPH, was awarded \$16 million over five years from the NIH and continued hiring research faculty for the [NURTURE](#) program, which includes collaboration with co-PIs across Northwestern Medicine.

The Division of General Obstetrics and Gynecology in the news

[How Does Plan B Work, and Is It Always Effective?](#)

(featuring Jessica W. Kiley, MD, MPH)

[Can Too Much Exercise Really Make Your Period Late—or Totally MIA?](#)

(featuring Katerina Hoyt, MD)

[Does IUD Insertion Hurt? Here's the Truth](#)

(featuring Kristen R. Venuti, MD)


General Obstetrics and Gynecology team

Left to right, back row: Kristen R. Venuti, MD; Mary E. Vaikutis, RN, MSN, APN; Cassing Hammond, MD; Jean Ramos, RN, MSN, APN; Arjeme D. Cavens, MD; Catherine A. Nosal, MD; Shobha Sridhar, MD

Left to right, front row: Weronika A. Armstrong, MD; Amber N. Watters, MD; Ashley M. Turner, MD, MSCI; Leanne R. McCloskey, MD, MPH; Jessica W. Kiley, MD, MPH; Marybeth Lore, MD [Not Pictured: Katerina Hoyt, MD; Ismely F. Minaya, MD; Melissa A. Simon, MD, MPH]

Key faculty awards and honors

Arjeme Cavens, MD

[Society of Academic Specialists in General Obstetrics and Gynecology Faculty Award](#)

Weronika A. Armstrong, MD

[John X. Thomas, Jr. Best Teachers of Feinberg Award Winner](#)

Jessica W. Kiley, MD, MPH

Chair, American College of Obstetricians and Gynecologists, Illinois Section (elected position)

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Mitta S, Gross CP, **Simon MA**. [Screening for hypertensive disorders of pregnancy in the US: a new hypertensive urgency](#). *JAMA Intern Med*. 2023. doi:10.1001/jamainternmed.2023.4723.

Kumar NR, **Speedy SE**, Song J, Welty LJ, **Cavens AD**. [Quality improvement initiative for aspirin screening and prescription rates for preeclampsia prevention in an outpatient obstetric clinic](#). *Am J Perinatol*. 2022. doi:10.1055/s-0042-1759705.

US Preventive Services Task Force, Davidson KW, Mangione CM, Barry MJ, Cabana MD, Caughey AB, Davis EM, Donahue, KE, Doubeni CA, Krist AH, Kubik M, Li L, Ogedegbe G, Pbert L, Silverstein M, **Simon M**, Stevermer J, Txeng CW, Wong JB. [Actions to transform US Preventive Services Task Force methods to mitigate systemic racism in clinical preventive services](#). *JAMA*. 2021;326(23):2405-2411.

Folsom S, Cejtan H, **Milad M**, Armstrong K, **Armstrong WA**. [Improving colposcopy education through images: a preliminary assessment of an image-based mobile app for colposcopic education](#). *J Low Genit Tract Dis*. 2023;27:78-82.

Dahl CM, Turner A, Bales C, Cheu L, Singh A, Cowett A, **McCloskey L**. [Influence of the Coronavirus Disease 2019 \(COVID-19\) pandemic on delays in and barriers to abortion](#). *Obstet Gynecol*. 2021;138:805-808.

Section of Complex Family Planning

Section summary

The Section of Complex Family Planning consists of four Complex Family Planning subspecialists who staff one of the region’s longest-serving and most-respected hospital-based abortion practices.

The clinical practice includes a Complex Contraception Clinic for patients with medical or other issues that make contraception challenging.

For 20 years, the section has collaborated with Family Planning Associates Clinic to host the Fellowship in Complex Family Planning, a program approved by the Accreditation Council for Graduate Medical Education (ACGME), training leaders in family planning throughout the United States. It also hosts a Ryan Residency Training Program. In addition to education and research, the Section of Complex Family Planning’s mission also includes advocacy – promoting the fundamental right to choose whether to become pregnant, remain pregnant or prevent pregnancy.

Faculty

Cassing Hammond, MD
(Section Director; Director of Illinois Coalition of Abortion Providers)



Allison A. Cowett, MD, MPH
(Medical Director, Family Planning Associates, Ltd.)

Jessica W. Kiley, MD, MPH
(Vice Chair, Clinical Operations; Division Chief, General Obstetrics and Gynecology; Medical Director, Northwestern Medical Group Women’s Health)

Leanne R. McCloskey, MD, MPH
(Director, Fellowship in Complex Family Planning; Medical Director, Postpartum)

Ashley M. Turner, MD, MSCI
(Director, Ryan Program in Complex Family Planning)

Jean Ramos, CNP
(Nurse Practitioner, Complex Family Planning)

FY23 key achievements



Education

Four senior faculty passed the new senior board examination in Complex Family Planning, becoming among the first physicians at Northwestern Medicine who are board-certified in Complex Family Planning: Cassing Hammond, MD; Allison A. Cowett, MD, MPH; Jessica W. Kiley, MD, MPH; and Leanne R. McCloskey, MD, MPH.

Maintained a collaborative fourth-year Complex Family Planning rotation, integrating exposure within an academic practice and a busy independent abortion clinic



Clinical

Provided medical and surgical abortion for highly complex patients through 24 weeks’ gestation, including patients no longer able to obtain services in other states.

Maintained Complex Contraception Clinic, providing ongoing care and consultation services for patients requiring contraception in the setting of challenging medical conditions.

Collaborated in the development of the Complex Abortion Referral Line for Access (CARLA), a patient navigator system that helps medically complex patients obtain hospital-based abortion services.

Brought mifepristone to formulary at Northwestern Medicine to improve access for both abortion and miscarriage management.



Research

We have ongoing research for the following:

- Factors associated with an atypical grief response following termination of pregnancy for fetal or maternal indications
- Continuation rates for subcutaneous vs intramuscular depo medroxyprogesterone acetate in patients seeking post-abortion contraception
- Advance provision of postpartum emergency contraception and its effects on reproductive autonomy: a mixed-methods study
- Distance traveled and individual factors associated with abortion stigma

Key faculty awards and honors

Cassing Hammond, MD

Section Editor for Family Planning for UpToDate

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Kiley J, Turner A, Nosal C, Beestrum M, Dungan J. [Labour induction for termination of pregnancy with severe fetal anomalies after 24 weeks' gestation: a case series and systematic review of the literature.](#) *Eur J Contracept Reprod Health Care.* 2022;27(6):486-493.

Hammond C. Overview of Second Trimester Pregnancy Termination. UpToDate, Steinauer, Chakrabarti, Eds. UpToDate; Waltham, MA (Updated September 2023)

Gynecologic Oncology

Division summary

The [Division of Gynecologic Oncology](#) continues to build a track record of sustained clinical growth and research excellence that benefits our patients and trainees. The division is a leader in surgical innovation, providing the best care in the Midwest for patients with gynecologic cancer. We look forward to an exciting future.

Faculty

Edward J. Tanner III, MD, MBA
(Division Chief)



Emma L. Barber, MD, MS
(Chair of Northwestern Cancer Quality Committee)

Emily M. Hinchcliff, MD, MPH
(Program Director of Obstetrics and Gynecology Residency)

Jenna Z. Marcus, MD
(Associate Program Director of Gynecologic Oncology Fellowship)

Daniela E. Matei, MD
(Division Chief of Reproductive Science in Medicine)

Dario R. Roque, MD
(Program Director of Gynecologic Oncology Fellowship; Co-Director of Placental Accreta Program)

Innovation and highlights

- The Division returned to meeting in person for Survive and Thrive, the Gynecologic Oncology Patient and Caregiver Conference. Going forward, the conference will be held annually. In attendance at the 2022 Survive and Thrive Conference were 130 patients and caregivers, and the Division raised \$36,000 toward research and education.

FY23 key achievements



Education

Emily M. Hinchcliff, MD, MPH, was named Residency Director for Northwestern Medicine's Department of OB-GYN.

Dario R. Roque, MD, remains the fellowship program director and Jenna Z. Marcus, MD, is the associate program director.

Over the last five years, 14 Northwestern University residents have matched into gynecologic oncology fellowship programs at top institutions across the U.S.



Clinical

Integration of clinical programs throughout Northwestern Medicine continues as gynecologic oncology services expand in the surrounding Chicago area to the south suburbs.



Research

Emma L. Barber, MD, MS, was awarded an R01 grant for patient-tailored physical activity intervention among older women with gynecologic cancers undergoing chemotherapy (Fit4Treatment), with total funding of \$3,644,989 over five years.

The division opened its first device clinical trial Zip-Stitch in Minimally-Invasive Surgery (ZIMS) Safety and Efficacy in Hysterectomy.

The research team hired two research coordinators and a research project manager to support the division's rapidly growing research portfolio.

The Division of Gynecologic Oncology in the news

[GOG 258 Final Results: No Improvement in Survival by Adding Radiotherapy to Chemotherapy in Advanced Endometrial Cancer](#) (featuring Daniela E. Matei, MD)

[Biomarkers Clarify Treatment Decisions and Sequencing in Endometrial Cancer](#) (featuring Emma L. Barber, MD, MS)

Key faculty awards and honors

Emma L. Barber, MD, MS

Received the Nora Marra Cooney Award for Compassionate Care for Lurie Cancer Center and named Chair, Northwestern Medicine System-wide Cancer Quality Committee

Dario R. Roque, MD

Appointed Subspecialty Deputy Editor for the Journal of Minimally Invasive Gynecology

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Steinberg JR, Turner BE, DiTosto JD, Weeks BT, Young AMP, Lu CF, Wolgemuth T, Holder K, Laasiri N, Squires N, Zhang N, Richardson MT, Magnani CJ, Anderson JN, **Roque DR**, Yee LM. [Race and ethnicity reporting and representation in obstetrics and gynecology clinical trials and publications from 2007-2020](#). *JAMA Surg.* 2023;158(2):181-190.

Asif H, **Foley G**, **Simon M**, **Roque D**, **Kim JJ**. [Analysis of endometrial carcinoma TCGA reveals differences in DNA methylation in tumors from Black and White women](#). *Gynecol Oncol.* 2023;170:1-10.

Xu G, Zhao Z, Wysham WZ, **Roque DR**, Fang Z, Sun W, Yin Y, Deng B, Shen X, Zhou C, Bae-Jump V. [Orlistat exerts anti-obesity and anti-tumorigenic effects in a transgenic mouse model of endometrial cancer](#). *Front Oncol.* 2023;13:1219923.

Barry D, **Steinberg JR**, **Towner M**, **Barber EL**, **Simon M**, **Roque DR**. [Enrollment of racial and ethnic minoritized groups in gynecologic oncology clinical trials: a review of the scope of the problem, contributing factors, and strategies to improve inclusion](#). *Clin Obst Gynecol.* 2023;66(1):22-35.

Petrozza J, Fitz V, Bhagavath B, Carugno J, Kwal J, Mikhail E, Nash M, Barakzai SK, **Roque DR**, Bregar AJ, Findley J, Neblett M, Flyckt R, Khan Z, Lindheim SR. [Surgical approach to 4 different reproductive pathologies by 3 different gynecologic subspecialties: more similarities or differences?](#) *Fertil Steril.* 2023;119(3):377-389.



Gynecologic Oncology team

Left to right: Emily M. Hinchcliff, MD, MPH; Raanan Y. Alter, MD; Emma L. Barber, MD, MS; Edward J. Tanner III, MD, MBA; Daniela E. Matei, MD; Dario R. Roque, MD; Jenna Z. Marcus, MD

Maternal-Fetal Medicine

Division summary

The [Maternal-Fetal Medicine Division's](#) 12 physician faculty and two advanced practice providers deliver compassionate, collaborative medical care to high-risk obstetrical patients. The division is dedicated to advancing the care of the pregnant patient and fetus by being leaders in clinical care, education and research.

In addition to providing prenatal care, division members are experts in labor and delivery, antepartum care of patients with complex conditions, obstetrical ultrasound and prenatal diagnosis. In conjunction with the Chicago Institute for Fetal Health, the division provides the full spectrum of fetal therapy. The division aspires to provide care to patients in the greater Chicago area and beyond using various outreach methods.

Faculty

Janelle Renee Bolden, MD
(Division Chief)



Nevert Badreldin, MD, MS

Kathleen A. Drexler, MD

Stephanie A. Fisher, MD, MPH, MS

Patricia M. Garcia, MD, MPH

Susan E. Gerber, MD, MPH
(Vice Chair of Education)

Jacqueline C. Hairston, MD

Michelle A. Kominiarek, MD, MS

LaTasha D. Nelson, MD, MS
(Co-Director of Placenta Accreta Program)

Priya V. Rajan, MD
(Medical Director of Diagnostic Ultrasound)

Michael L. Socol, MD (Retired September 2023)

Bethany T. Stetson, MD
(Chief of Obstetrics; Associate Program
Director, Maternal-Fetal Medicine Fellowship)

Lynn M. Yee, MD, MPH
(Associate Chief of Maternal-Fetal Medicine
for Research; Program Director, Maternal-Fetal
Medicine Fellowship)

Advanced practice providers

Charlotte M. Niznik, APN

Ismene Potakis, PA-C

Innovation and highlights

- Collaboration with the Chicago Institute for Fetal Health allows for exceptional multidisciplinary care for pregnant patients with fetal abnormalities.
- The division houses the Northwestern Medicine Placenta Accreta Center, led by LaTasha D. Nelson, MD, MS. Here, we provide excellent, comprehensive, multidisciplinary care to patients with placenta accreta spectrum disorder.
- Maternal-Fetal Medicine and Neonatology teams provide individualized, compassionate care via joint consultations to patients with pregnancies complicated by peri-viability concerns.

FY23 key achievements



Education

A fully accredited and successful three-year fellowship is available in Maternal-Fetal Medicine, incorporating research, education, clinical, and advocacy activities.

The division incorporates medical students, residents and fellows in all aspects of patient care; learners contribute in adding to the growing body of perinatology literature by participating in multiple research efforts.

Multiple division members are honored with undergraduate and graduate teaching awards every year.



Clinical

The Northwestern Medicine Women's Infectious Disease Program continues to lead the clinical care of families affected by HIV during pregnancy, including participating in NIH-funded multicenter studies about the health of pregnant and reproductive age women with HIV.

Representatives from the multidisciplinary outpatient team engaged in a series of rapid improvement meetings to identify opportunities to improve teamwork while enhancing patient access.

We honored and celebrated the many contributions of members who transitioned to emeritus faculty after several years dedicated to advancing the practice of Maternal-Fetal Medicine locally and nationally. We also welcomed new members to our team and look forward to expanding our services to new locations in the future.



Research

Under the leadership of Lynn M. Yee, MD, MPH, the Northwestern Study Center was renewed for seven years of continued participation in the National Institute of Child Health and Human Development-funded Maternal-Fetal Medicine Units (MFMU) Network.

In partnership with [Ann & Robert H. Lurie Children's Hospital of Chicago](#) and Hackensack Meridian Health, Dr. Yee was awarded a major NIH grant to join the Environmental Influences on Child Health Outcomes (ECHO) program, a massive national cohort designed to study the health of children and their mothers.

Stephanie A. Fisher, MD, MPH, MS, received a second Eleanor-Wood-Prince grant for the SMASH-INFLAMMOX study (Social determinants and metabolomic signatures associated with HIV in pregnancy: association with inflammation and oxidative stress).

Dr. Yee was named a co-investigator on the recently NIH-funded study Enriching ECHO with High-risk Pregnancies and Children with Disabilities (UG30D035513).

Recruitment began for the philanthropically funded Founders 400/Chicago Perinatal Origins of Disease (CPOD) Research Initiative.

Recruitment began for the MASH study (Metabolomic signatures associated with adverse pregnancy outcomes and social determinants of health), funded by the Friends of Prentice, a Dixon Translational Research grant and an Eleanor-Wood-Prince grant.

The Division of Maternal-Fetal Medicine in the news

[Could COVID in Pregnancy Raise Odds for Obese Kids?](#) (featuring Priya V. Rajan, MD)

[Student Investigates Link Between Neighborhood Safety and Pregnancy Outcomes](#) (featuring Lynn M. Yee, MD, MPH)

[Study Finds No Increased Risk of CVD Years After Infertility Therapies](#) (featuring Stephanie A. Fisher, MD, MPH, MS)

Key faculty awards and honors

Patricia M. Garcia, MD, MPH

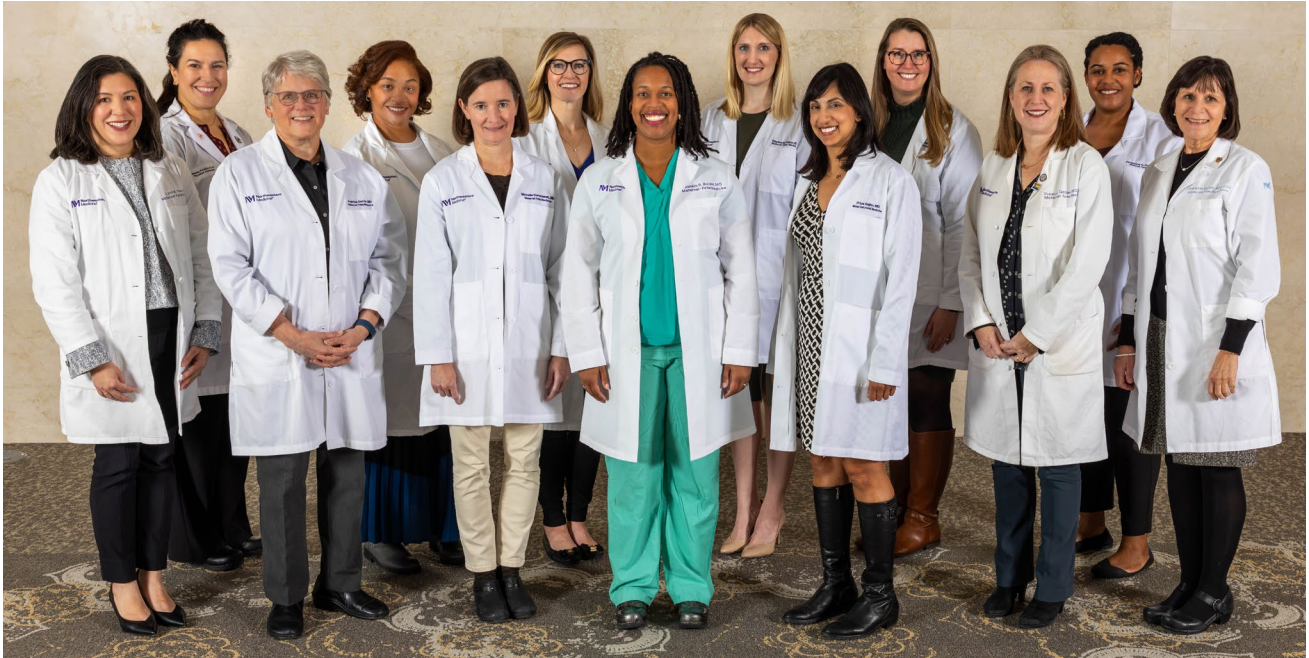
John X. Thomas, Jr. Lifetime Achievement Award, Northwestern University Feinberg School of Medicine, AWOME Medical Education

Charlotte M. Niznik, APN

2023 APRN Excellence Award for Ambulatory, Northwestern Medicine

Stephanie A. Fisher, MD, MPH, MS

Outstanding Fellow Teaching Award 2023, Feinberg School of Medicine



Maternal-Fetal Medicine team

Left to right, back row: Ismene Potakis, PA-C; LaTasha D. Nelson, MD, MS; Bethany T. Stetson, MD; Stephanie A. Fisher, MD, MPH, MS; Kathleen A. Drexler, MD; Jacqueline C. Hairston, MD

Left to right, front row: Lynn M. Yee, MD, MPH; Patricia M. Garcia, MD, MPH; Michelle A. Kominiarek, MD, MS; Janelle Renee Bolden, MD; Priya V. Rajan, MD; Susan E. Gerber, MD, MPH; Charlotte M. Niznik, APN [Not Pictured: Nevert Badreldin, MD, MS; Michael L. Socol, MD]

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Cameron NA, **Yee LM**, Dolan BM, O'Brien MJ, Greenland P, Khan SS. [Trends in cardiovascular health counseling among postpartum individuals](#). *JAMA*. 2023;330(4):359-367.

Fisher SA, Miller ES, **Yee LM**, Grobman W, Premkumar A. [Universal first-trimester cytomegalovirus screening and valaciclovir prophylaxis in pregnant persons: a cost-effectiveness analysis](#). *Am J Obstet Gynecol MFM*. 2022;4(5):100676.

Fisher SA, Kominiarek MA. [Gestational weight gain in pregnant people with obesity](#). *Curr Obstet Gynecol Rep*. 2023;12:17-29.

Fisher SA, Stetson BT, Kominiarek MA. [Pregnancy after bariatric surgery](#). *JAMA*. 2023;329(9):758-759.

Fisher SA, Khan SS, Freaney PM. [Assisted reproductive technologies and cardiovascular disease risk in birthing adults—when null results matter](#). *JAMA Cardiol*. 2023;8(9):846-847.

Fisher SA, Huang J, DuBord AY, Beestrum M, **Niznik C**, Yeung AM, Xu NY, Nguyen KT, Klonoff D, **Yee LM**. [Continuous subcutaneous infusion versus multiple daily injections of insulin for pregestational diabetes in pregnancy: a systematic review and meta-analysis](#). *J Diabetes Sci Technol*. 2023;17(5):1337-1363.

Section of Diagnostic Ultrasound

Section summary

The [Section of Diagnostic Ultrasound](#) provides comprehensive obstetric and gynecologic ultrasound services to patients across Chicagoland and around the world. The section has grown along with the Maternal-Fetal Medicine Division. The section collaborates with the various divisions within the Department of Obstetrics and Gynecology, as well as the Chicago Institute for Fetal Health.

Faculty

Priya V. Rajan, MD
(Medical Director)



Leeber Cohen, MD

Ralph K. Tamura, MD (Retired FY23)

In FY23, the section successfully completed more than 35,000 interpretations for the downtown Chicago locations and about 20,000 ultrasound interpretations for offsite partners. Our section enhances its clinical experience with regular review of the current evidence and literature in ultrasound and ongoing education.

All ultrasound operations in the Department of Obstetrics and Gynecology have been awarded accreditation through 2023 in the following areas by the American Institute of Ultrasound in Medicine:

- Standard Obstetric Ultrasound
- Detailed Fetal Anatomic Evaluation Ultrasound
- Gynecologic Ultrasound
- 3D Gynecologic Ultrasound

Our experienced sonographers are certified by the American Registry for Diagnostic Medical Sonography. Many of our sonographers have additional advanced training.

Innovation and highlights

- Acquisition of new state-of-the-art ultrasound machines
- Participation in a national conference to develop best practices in obstetric ultrasound

FY23 key achievements



Education

Enhanced trainee education through a combination of hands-on guidance, simulation sessions and didactics for performing ultrasound and ultrasound-guided techniques and learning ultrasound interpretation

Held monthly multidisciplinary conferences to discuss abnormal obstetric ultrasound findings



Clinical

Maintained strong ultrasound volumes

Updated clinical guidance and imaging protocols to align with most current recommendations from national societies

Adapted workflows to increase efficiency and ergonomic safety and sonographer satisfaction



Research

Robust clinical enterprise allows for the identification of patients for potential enrollment in several studies such as an MFMU trial evaluating the role of pessary or gel in preventing preterm birth for patients with a twin gestation and short cervix.

Several current resident, fellow and student research projects use our extensive ultrasound databases.



Key section presentations

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Rajan PV. Umbilical vein varix: what to do? Presented at: 43rd Annual Pregnancy Meeting; February 6, 2023; San Francisco, California.

Madden N, Serino M, Wegner L, Friedlander R, Yee L, Rajan P. Factors associated with latency duration in growth-restricted fetuses with absent end diastolic flow. Poster presented at: Society for Maternal-Fetal Medicine 43rd Annual Pregnancy Meeting; February 2023; San Francisco, California.

The Section of Diagnostic Ultrasound in the news

[Think Twice Before Buying an At-Home Fetal Doppler](#)
(featuring Priya V. Rajan, MD)

Minimally Invasive Gynecologic Surgery

Division summary

The [Division of Minimally Invasive Gynecologic Surgery](#) (MIGS) anchors patient care in the Northwestern Medicine Center for Complex Gynecology, a multidisciplinary center for collaborating specialists that includes the following specialties:

- Minimally invasive gynecologic surgery
- Reproductive endocrinology and infertility
- Physical medicine and rehabilitation
- Physical therapy
- Interventional radiology
- Psychology
- Sexual therapy

The center focuses on treatment for fibroids, endometriosis, pelvic pain, tubal disease, and vaginal and uterine anomalies in a space specifically designed to prioritize the patient's experience.

To support patients, the space also provides access to:

- Three full-time physical therapists
- Two nurse practitioners
- Two sex therapists
- Pain psychologist
- Ultrasound and laboratory services

Patient experience is carefully orchestrated to allow all required information and tests to be obtained before the initial visit so a detailed care plan can be organized without multiple return visits.

To complete the academic mission, the clinic:

- Has a full-time research coordinator on staff
- Has approximately 10 ongoing research studies
- Offers an accredited American Association of Gynecologic Laparoscopists (AAGL) fellowship
- Hosts residents, medical students, nursing students and undergraduate students

Faculty

Magdy P. Milad, MD, MS
(Division Chief)



Angela Chaudhari, MD
(Chief of Gynecology and Gynecologic Surgery;
Vice Chair of Faculty Development)

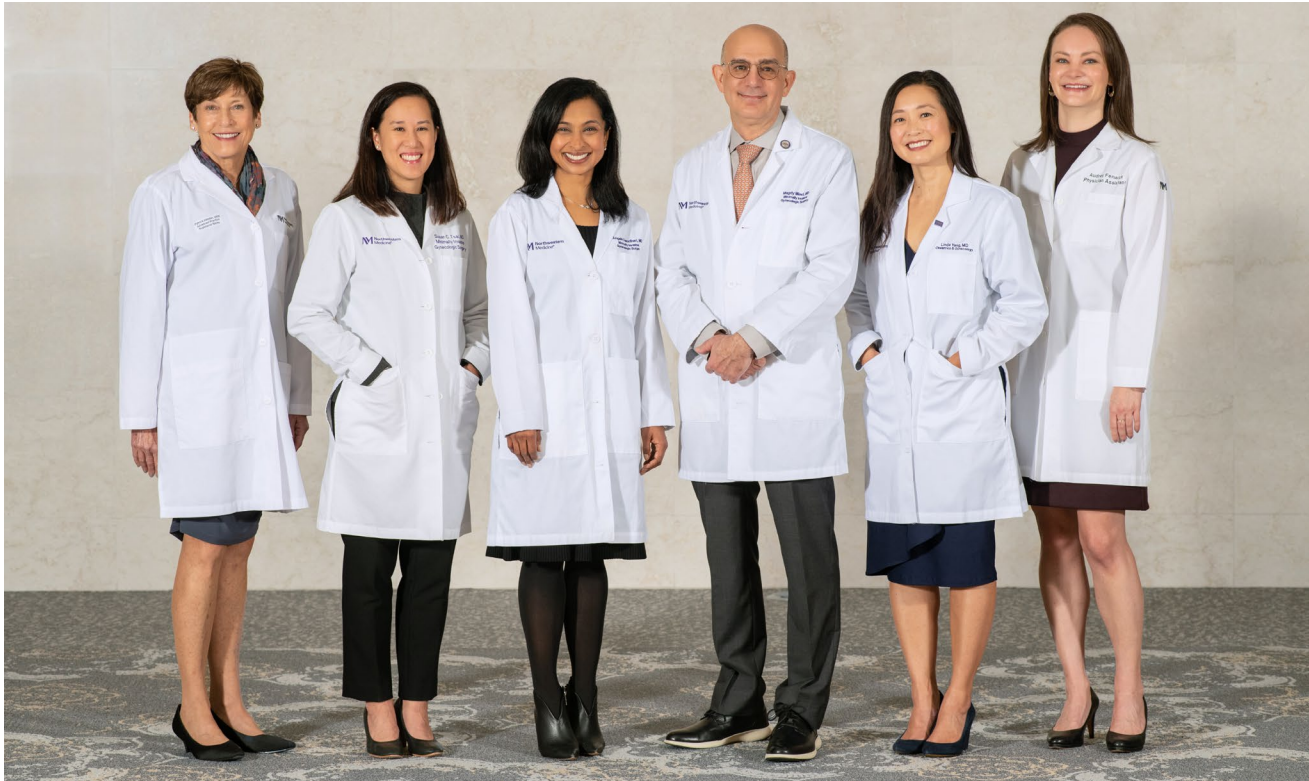
Sarah K. Hwang, MD
(Medical Director of Women's Health Rehabilitation)

Susan C. Tsai, MD
(Associate Fellowship Director)

Linda C. Yang, MD, MS
(Fellowship Director)

Innovation and highlights

- The MIGS Division are founding members, along with plastic surgeons and urologists, of the Northwestern Medicine Gender Pathways Program, providing surgical transition for transgender and gender nonconforming patients. The program has expanded to provide all aspects of transition care, including primary care physicians, endocrinologists, psychiatrists, counselors and speech therapists across Chicagoland.
- We personalize every patient's surgical choice by offering all options for robotic, laparoscopic and hysteroscopic procedures, including the newest and most innovative surgical technologies: vaginal surgery via vNOTES, single-site robotics surgery and radiofrequency ablation of fibroids.



Minimally Invasive Gynecologic Surgery team

Left to right: Patricia Handler, MSN, FNP-C; Susan C. Tsai, MD; Angela Chaudhari, MD; Magdy P. Milad, MD, MS; Linda C. Yang, MD, MS; Audrey Fenwick, MS, PA-C
 [Not Pictured: Sarah K. Hwang, MD]

FY23 key achievements



Education

Mentored resident research, including both randomized control and observational studies.

MIGS faculty are educational leaders and invited lecturers at national and international conferences around the world including ACOG, AAGL, SGS, ASRM and the AMA.

A robust resident and fellow curriculum is in place with a regular MIGS journal club and didactic series, fibroid conference, and pre-operative planning conference, in addition to developing weekly resident endoscopy rounds.

MIGS faculty are consistently given Top Teacher awards from Feinberg School of Medicine.

Developed a global health site in the Philippines for trainee opportunities



Clinical

Consistently exceeds “Patient Likelihood to Recommend Provider” goal with a score of 92 out of 100 (source: Medallia)

High volume and high-quality practice for benign and complex surgery consultation, including multidisciplinary endometriosis care, uterine fibroids, and reproductive surgery

Clinical surgical volumes continue to increase yearly with all modalities, including laparoscopic, hysteroscopic, robotic and vaginal surgery, offered to patients

Developed surgical procedures using a single site robotic platform



Research

Key studies underway:

- #EMPOWER study, the largest ever conducted to develop a noninvasive diagnostic test for endometriosis (Dot Laboratories, \$310,000; PI: Magdy P. Milad, MD, MS)
- A phase 3, single-arm, open-label study to evaluate the safety and contraceptive efficacy of relugolix combination therapy in women with uterine fibroids or endometriosis (\$265,429.55; PI: Dr. Milad)
- Micro physiological modeling of endometriosis Understanding Endometriosis: Generation of Induced Pluripotent Stem Cells from Endometriosis Patients. An R01 grant totaling \$3,301,353.25 (PI: Ji-Yong Julie Kim, PhD; co-investigator: Dr. Milad)

Key faculty awards and honors

Magdy P. Milad, MD, MS

\$250,000 grant to develop the Salcedo Hospital Center of Excellence, Eastern Samar, Philippines

Linda C. Yang, MD, MS

\$5,000 Nezhat Family Foundation Grant

All faculty

Top Teachers of Year, Department of OB-GYN, Feinberg School of Medicine

The Division of Minimally Invasive Gynecologic Surgery in the news

Northwestern Medicine Instagram Reel

(featuring Magdy P. Milad, MD, MS)

[BackTable OB-GYN podcast](#)

(featuring Angela Chaudhari, MD)

[Parts and Labor podcast](#)

(featuring Dr. Chaudhari, MD; Serdar E. Bulun, MD; Ji-Yong Julie Kim, PhD; and Dr. Milad)

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Duyar S, Tsai S, Milad MP, Chaudhari A. [Attitudes and beliefs about hysterectomy in patients with uterine fibroids.](#) *J Minim Invasive Gynecol.* 2023;30(10):797-804.

Bulun SE, Yildiz S, Adli M, Chakravarti D, Parker JB, Milad M, Yang L, Chaudhari A, Tsai S, Wei JJ, Yin P. [Endometriosis and adenomyosis: shared pathophysiology.](#) *Fertil Steril.* 2023;119(5):746-750.

Yildiz S, Kinali M, Wei JJ, Milad M, Yin P, Adli M, Bulun SE. [Adenomyosis: single-cell transcriptomic analysis reveals a paracrine mesenchymal-epithelial interaction involving the WNT/SFRP pathway.](#) *Fertil Steril.* 2023;119(5):869-882.

Sarkar P, Yu L, Urbina P, Milad MP. [Adverse events when using advanced sealing devices during vaginal hysterectomy: an analysis of the Manufacturer and Use Facility Device Experience \(MAUDE\) database.](#) *J Gynecol Surg.* 2023;39:158-161.

Wolgemuth T, Suresh N, Holder K, Milad MP. [Informational preferences of women seeking treatment for symptomatic uterine fibroids: a qualitative study.](#) *J Minim Invasive Gynecol.* 2023;30(4):284-289.

Gupta A, Balk EM, Lenger SM, **Yang LC**, Misal M, Balgobin S, Chang OH, Sharma V, Stuparich M, Behbehani S, Nihira M, Alas A, Jampa A, Sheyn D, Meriwether K, Antosh DD. [Changes in pelvic floor symptoms after procedural interventions for uterine leiomyomas: a systematic review.](#) *Obstet Gynecol.* 2023;142(2):319-329.

Section of Sexual Medicine and Menopause

Section summary

The [Northwestern Medicine Center for Sexual Medicine and Menopause](#) includes:

- Physicians and advanced practice providers certified by the Menopause Society
- Nurses certified by the Menopause Society
- Sex therapists certified by the American Association of Sexuality Educators, Counselors and Therapists
- Pelvic floor physical therapists

The multidisciplinary team works collaboratively in four distinct programs:

Program for Menopause. Both hormonal and nonhormonal strategies are used to address vasomotor symptoms, genitourinary syndrome of menopause, and other health and psychosocial repercussions of spontaneous, surgical or medically induced menopause and perimenopause. All clinicians are certified by the Menopause Society.

Program for Sexual Medicine. Various medical conditions, as well as some psychosocial comorbidities, can influence an individual's ability to have healthy, positive sexual responses and experiences. Dyspareunia, complex vulvodynia and vaginismus, hypoactive sexual desire disorder and orgasmic disorders are among the conditions that are treated.

Program for Vulvar and Vaginal Health. This program uses innovative medical and surgical approaches to treat common conditions, such as lichen sclerosus, lichen planus, hidradenitis suppurativa and VIN, as well as uncommon or complex vulvar and vaginal conditions.

Trauma Informed Gynecology/Post Sexual Assault Care. This unique program coordinates with the emergency department and community programs to provide the outpatient services recommended to patients after sexual assault using a trauma-informed, patient-centered approach to their care.

Faculty

Traci A. Kurtzer, MD
(Medical Director of Trauma Informed Care and Education)



Rajal C. Patel, MD

Advanced practice provider:
Patricia Handler, MSN, FNP-C

Licensed therapists
Bea Cleveland, MSW, LCSW
Jennifer Levy, MA, LCPC, CST

Innovation and highlights

- Rajal C. Patel, MD, enhanced provision of medical, surgical and laser treatment of complex vulvovaginal disorders and support for fellow training in collaboration with the Department of Dermatology
- Traci A. Kurtzer, MD, created an enhanced collaborative model and approach for the treatment of grade 3 and 4 genito-pelvic pain penetration disorder and vaginismus

FY23 key achievements



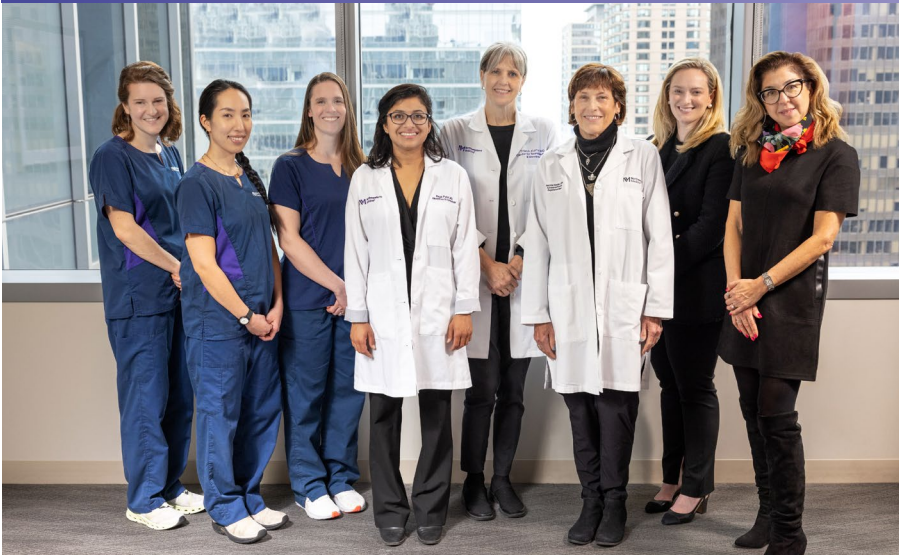
Education

Orientation lecture about trauma-informed care given to each incoming medical student and physician assistant on their OB-GYN rotation

Lectures to clinical and nonclinical staff on principles of trauma-informed care and vulvar diseases

Invited to present at national, state and local institutions about trauma-informed care, human trafficking and domestic violence

Invited to speak about vulvar conditions for a board review course



Sexual Medicine and Menopause team

Left to right: Katherine M. Ireland, PT, DPT; Toshiko Paniagua, PT, DPT; Helene S. Bengtsson, PT, DPT; Rajal C. Patel, MD; Traci A. Kurtzer, MD; Patricia Handler, MSN, FNP-C; Bea Cleveland, MSW, LCSW; Jennifer Levy, MA, LCPC, CST



Clinical

“Patient Likelihood to Recommend Provider” score of 92 out of 100 (source: Medallia)

Traci A. Kurtzer, MD, provided referral gynecology services for Comprehensive Care After COVID-19 to treat the gynecologic sequelae of post-acute sequelae of COVID-19 (“long COVID”)

Key faculty and staff awards and honors

Rita Govert, RN

Preceptor Recognition award

Traci A. Kurtzer, MD

Victoria J. Mastrobuono award for Women’s Health 2022, National Organization for Women

Helene S. Bengtsson, DPT

President of the Pelvic Special Interest Group, American Academy of Orthopaedic Manual Physical Therapists

The Section of Sexual Medicine and Menopause in the news

[Are We Ready for the Long COVID Long-Haul?](#)

(featuring Traci A. Kurtzer, MD)

[Health Experts Set the Record Straight on Menopause, From Symptoms to Treatments](#)

(featuring Patricia Handler, MSN, FNP-C)

[Human Trafficking: What to Do! Women’s Health Matters Podcast/Convey Med](#)

(featuring Dr. Kurtzer)

Key section publication

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Prakash J, Oriola B, **Kurtzer T**, Stoklosa H. [“Praying for freedom”: a story of labor trafficking during pregnancy.](#) *Am J Obstet Gynecol MFM.* 2023;5(4):100873.

Reproductive Endocrinology and Infertility

Division summary

The [Reproductive Endocrinology and Infertility \(REI\) Division](#) in the [Center for Fertility and Reproductive Medicine](#) has 13 faculty members, including world-class experts in the diagnosis and management of complex reproductive endocrine disorders, treatment of infertility, preservation of fertility, IVF, third-party reproduction (including reproduction with donor gametes and gestational carriers) and the psychological impact of reproductive disorders.

The REI faculty hold national leadership roles in leading medical organizations, and they participate in leading-edge research that is slated to improve the delivery of care and outcomes for the communities they serve. In addition to the evidence-based care they provide their patients, the REI faculty work to elevate the status of women's health by training future generations of clinicians, including medical students, residents and fellows. The ACGME REI fellowship training program attracts the top residency graduates from across the nation. Graduates of this program are carrying on strong traditions of excellence in reproductive health.

Faculty

Emily S. Jungheim, MD, MSCI
(Division Chief)



Elnur Babayev, MD, MS

Lia A. Bernardi, MD, MSCI

Christina E. Boots, MD, MSCI

Serdar E. Bulun, MD (Chair)

Eve C. Feinberg, MD

Kara N. Goldman, MD

Tarun Jain, MD

Helen H. Kim, MD

Susan C. Klock, PhD

Angela K. Lawson, PhD

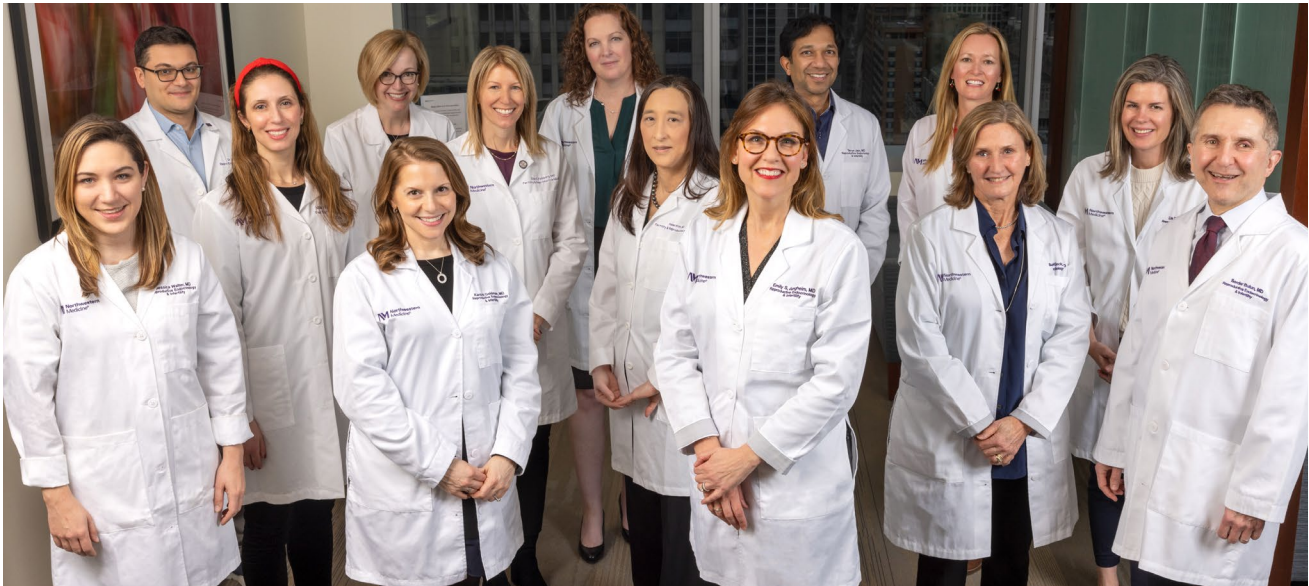
Mary Ellen G. Pavone, MD, MSCI

Joan K. Riley, PhD

Jessica R. Walter, MD, MSCE

Innovation and highlights

- Recruited third-year REI fellow Allison Komorowski, MD, to join as faculty after completing her fellowship training in June 2024. Dr. Komorowski will provide exceptional clinical care and contribute to our educational and research initiatives.
- Procured additional funding for clinical, procedure room and embryology lab renovations and equipment updates to ensure leading-edge patient care and access.
- Trained four additional embryologists on the full scope of oocyte fertilization and embryo development, leading to excellent IVF success rates and fertility preservation outcomes.
- Integrated state-of-the-art technology for sustaining quality and safety in the embryology lab and improving coordination of complex reproductive treatments.



Reproductive Endocrinology and Infertility team

Left to right front row: Jessica R. Walter, MD, MSCE; Kara N. Goldman, MD; Emily S. Jungheim, MD, MSCI; Susan C. Klock, PhD; Serdar E. Bulun, MD
Left to right middle row: Mary Ellen G. Pavone, MD, MSCI; Eve C. Feinberg, MD; Helen H. Kim, MD
Left to right back row: Elnur Babayev, MD, MS; Joan K. Riley, PhD; Angela K. Lawson, PhD; Tarun Jain, MD; Christina E. Boots, MD, MSCI; Lia A. Bernardi, MD, MSCI

FY23 key achievements



Education

REI faculty members continue to mentor many fellows, residents and medical students, and they have more than 20 mentored research projects to present at the 2024 annual ASRM meeting, including a prize paper.

The division hired three and a half FTE research assistants to build a sustainable model for research training and execution in the fellowship program.

The division implemented a weekly conference led by fellows for all team members to discuss salient issues in reproductive medicine, including ethics, genetics and access to care.



Clinical

Implemented the Epic Fertility module, which allows data capture for treatment cycles for intrauterine insemination, IVF, and frozen embryo transfer and cycle outcomes.

Opened a clinic in Geneva to expand access to patients seeking care in the western suburbs. We will continue to leverage telehealth services for new and return consults.

Expanded safe IVF access to patients with complex medical histories and comorbidities.

Worked collaboratively with the Division of Medical Genetics to improve integration and application of complex genetic testing in reproductive medicine.

Exceeded “Patient Likelihood to Recommend Provider” goal with score of 92 out of 100 (source: Medallia)



Research

NIH Reproductive Medicine Network grant (R01): Launched Pre-IVF Treatment with a GnRH Antagonist in Women with Endometriosis: A Prospective Double Blind Placebo Controlled Trial (PREGnant).

Elnur Babayev, MD, MS, was brought on as full-time faculty in the NIH-sponsored Women's Reproductive Health Research (WRHR) – Career Development Program; his research is focused on ovarian aging.

Christina E. Boots, MD, MSCI, Emily S. Jungheim, MD, MSCI, and Lia A. Bernardi, MD, MSCI, each brought NIH subawards to the division.

- Dr. Boots: Developmental Origins of Polycystic Ovary Syndrome: Very Early Phenotypes During the Mini Puberty
- Dr. Jungheim: Prospective Cohort Assessing Novel Biomarkers of Early Pregnancy
- Dr. Bernardi: Genetic Predisposition to Recurrent Pregnancy Loss

The Division of Reproductive Endocrinology and Infertility in the news

[Woman Shares Inspiring Fertility Journey After Cancer Treatment](#)
(featuring Kara N. Goldman, MD)

Key faculty awards and honors

Eve C. Feinberg, MD

Board of Directors, American Society for Reproductive Medicine

Tarun Jain, MD

Member, Practice Committee of the American Society for Reproductive Medicine

Emily S. Jungheim, MD, MSCI

Chair, American Board of Obstetrics and Gynecology Division of Reproductive Endocrinology and Infertility
Board of Directors, American Board of Obstetrics and Gynecology

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

HogenEsch E, Hojjati R, **Komorowski A**, Maniar K, **Pavone ME**, **Bakkensen J**, **Bernardi L**. [Chronic endometritis: screening, treatment, and pregnancy outcomes in an academic fertility center](#). *J Assist Reprod Genet*. 2023;40(10):2463-2471.

Bakkensen JB, **Strom D**, **Boots CE**. [Frozen embryo transfer outcomes decline with increasing female body mass index with female but not male factor infertility: analysis of 56,564 euploid blastocyst transfers](#). *Fertil Steril*. 2023;S0015-0282(23)00724-0.

Bakkensen JB, Smith KS, Cheung EO, Moreno PI, **Goldman KN**, **Lawson AK**, **Feinberg EC**. [Childbearing, infertility, and career trajectories among women in medicine](#). *JAMA Netw Open*. 2023;6(7):e2326192.

Pelayo RA, Xu S, **Walter JR**. [Embryo transfers performed during daylight savings time led to reduced live birth rates in older patients](#). *J Assist Reprod Genet*. 2023. doi:10.1007/s10815-023-02920-x.

Komorowski AS, **Walter JR**, Martin CE, Bedrick BS, **Riley JK**, **Jungheim ES**. [Neighborhood disadvantage is associated with decreased ovarian reserve in women with overweight and obesity](#). *Fertil Steril*. 2023;119(4):653-660.

Reproductive Science in Medicine

Division summary

The mission of the [Reproductive Science in Medicine \(RSM\) Division](#) is to grow and sustain a highly productive and well-funded research milieu where faculty discover, collaborate, thrive, train and mentor the next generation of reproductive scientists, while pushing the field forward. The division includes seven tenure-track faculty, nine non-tenure-track faculty and two lecturers.

The division fosters much of the basic science efforts in the department and complements a high-volume clinical practice and parallel activities in clinical research, population science and community outreach. The main areas of scientific strength are:

- Nuclear receptor signaling (studied by Serdar E. Bulun, MD; Debabrata Chakravarti, PhD, and Ji-Yong Julie Kim, PhD)
- Epigenetic regulation of gene expression (studied by Dr. Bulun, Daniela E. Matei, MD; Dr. Chakravarti and Mazhar Adli, PhD)
- Cancer biology and therapeutics (studied by Dr. Matei, Dr. Kim, Dr. Chakravarti and Dr. Adli)
- Stroma and microenvironment (studied by Francesca E. Duncan, PhD; Dr. Bulun; Elnur Babayev, MD, MS, and Dr. Kim)
- Biological determinants of disparities in gynecologic cancers (studied by Dr. Matei, Dr. Kim and Dr. Duncan)
- Effects of aging on reproductive functions (studied by Dr. Duncan and Dr. Babayev)

The work of the RSM Division focuses on common disorders of the reproductive tract, such as cancer, endometriosis, leiomyomas and ovarian failure. The division benefits from the collaborative relationship with Lurie Cancer Center.

The strengths of the division come from the depth and breadth of the science carried out by its investigators. Major projects include:

- Uterine Leiomyoma Research Center Program (NICHD-P50, 2019 to 2024), Serdar E. Bulun, MD (contact PI)
- Disparities in gynecologic cancer (NCI-P20, Northwestern University Cancer Health Equity Research, 2020 to 2023), Melissa A. Simon, MD, MPH

Faculty

Daniela E. Matei, MD
(Division Chief)



Mazhar Adli, PhD

Serdar E. Bulun, MD (Chair)

Debabrata Chakravarti, PhD
(Vice Chair of Translational Research)

Francesca E. Duncan, PhD

Ji-Yong Julie Kim, PhD

Elnur Babayev, MD, MS

(contact PI); Ji-Yong Julie Kim, PhD (basic co-lead, co-investigator); Daniela E. Matei, MD (core co-lead)

- Chromatin imaging in ovarian cancer stem cells (NCIU01, 2021 to 2025), Daniela E. Matei, MD (PI); Mazhar Adli, PhD (co-investigator)
- Ovarian Biology Core Platform (Bill and Melinda Gates Foundation), Francesca E. Duncan, PhD (PI)
- CRISPR based platform to characterize essential human genes (NIH UM1 2022-2027); Mazhar Adli, PhD (PI)

Innovation and highlights

- Faculty in the RSM division conduct high-impact research in diseases affecting organs of the reproductive tract. Through leading-edge technology and innovative models developed in-house, these investigators strive to develop new treatments that impact the lives of patients with reproductive tract disorders.

FY23 key achievements



Education

Graduate students (PhD or MD/PhD): eight (four graduated); post-doctoral fellows: 12; master's students: 10

Eunice Kennedy Shriver National Institute of Child Health and Human Development T32 grant for mentoring pre-doctoral students (two students per year)

The only master's program in reproductive sciences, led by Ji-Yong Julie Kim, PhD, and Francesca E. Duncan, PhD, trains five to 10 graduate students per year, who apply to PhD programs or proceed to work in research labs and clinical embryology labs.



Clinical

Division members actively collaborate with clinicians. For example:

- Francesca E. Duncan, PhD, works with Kara N. Goldman, MD, and other REI clinicians to develop clinical research protocols to address ovarian aging and fertility preservation.
- Daniela E. Matei, MD, translates her stem cell work in ovarian cancer together with her clinician colleagues in the Gynecologic Oncology Division and with Jian-Jun Wei, MD, from Pathology.
- Mazhar Adli, PhD, uses single-cell RNA sequencing technology to characterize changes induced by chemotherapy in ovarian tumors in collaboration with Edward J. Tanner III, MD, MBA, in the Gynecologic Oncology Division.
- Serdar E. Bulun, MD, works with clinicians from the Minimally Invasive Gynecologic Surgery and Reproductive Endocrinology and Infertility divisions to use aromatase inhibitors innovatively in endometriosis, adenomyosis and infertility.



Research

Highly impactful manuscripts published by division investigators are pushing the field forward.

Collaborative science is highly valued and reflected in the existing funded collaborative grants and continued efforts to apply for P- and U-type program awards in uterine fibroids, endometriosis, ovarian cancer and fertility preservation.

Key faculty awards and honors

Daniela E. Matei, MD

Society of Gynecologic Oncology Harry Long Multidisciplinary Award

Francesca E. Duncan, PhD

Deputy Editor, Molecular Human Reproduction



Reproductive Science in Medicine team

Left to right: Elnur Babayev, MD, MS; Mazhar Adli, PhD; Serdar E. Bulun, MD; Daniela E. Matei, MD; Ji-Yong Julie Kim, PhD; Debabrata Chakravarti, PhD
 [Not Pictured: Francesca E. Duncan, PhD]

Key division publications

Bold names denote Northwestern Medicine Department of Obstetrics and Gynecology faculty, trainees and staff at the time of publication.

Zhao G, Tan Y, **Cardenas H**, Vayngart D, **Wang Y**, **Huang H**, Keathley R, **Wei JJ**, Ferreira CR, Orsulic S, Cheng J-X, **Matei D**. [Ovarian cancer cell fate regulation by the dynamics between saturated and unsaturated fatty acids](#). *Proc Natl Acad Sci U S A*. 2022;119(41):e2203480119.

Buyukcelebi K, Chen X, **Abdula F**, **Elkafas H**, **Duval AJ**, **Ozturk H**, **Seker-Polat F**, Jin Q, Yin P, Feng Y, **Bulun SE**, **Wei JJ**, Yue F, **Adli M**. [Engineered MED12 mutations drive leiomyoma-like transcriptional and metabolic programs by altering 3D genome compartmentalization](#). *Nat Commun*. 2023;14(1):4057.

Li Y, **McNally RP**, Feng Y, **Kim JJ**, **Wei JJ**. [Racial differences in transcriptomics and reactive oxygen species burden in myometrium and leiomyoma](#). *Hum Reprod*. 2023;38(4):609-620.

Iizuka T, Yin P, **Zuberi A**, **Kujawa S**, **Coon JS**, Björvang RD, Damdimopoulou P, Pacyga DC, Strakovsky RS, Flaws JA, **Bulun SE**. [Mono-\(2-ethyl-5-hydroxyhexyl\) phthalate promotes uterine leiomyoma cell survival through tryptophan-kynurenine-AHR pathway](#). *Proc Natl Acad Sci U S A*. 2022;119(47):e2208886119.

Tan Y, Li J, **Zhao G**, Huang KC, **Cardenas H**, **Wang Y**, **Matei D**, Cheng JX. [Metabolic reprogramming from glycolysis to fatty acid uptake and beta-oxidation in platinum resistant ovarian cancer](#). *Nat Commun*. 2022;13(1):4554.



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