

Cleveland | Ohio



DEPARTMENT OF OBSTETRICS & GYNECOLOGY



DEAR COLLEAGUE:

As one of just 18 hospitals named to the U.S. News & World Report Honor Roll, University Hospitals Case Medical Center is committed to building upon a legacy of medical discovery that began nearly 150 years ago and continues today.

Through our collaboration with Case Western Reserve University School of Medicine, our obstetrician gynecologists – many of whom are also faculty at the School of Medicine - are forging the future of medicine through a number of programs and initiatives:

- As a national leader in maternal fetal medicine, we are one of just a few facilities in the country with single site care for all phases of high-risk pregnancies and deliveries which means that mothers and babies are never separated at our facility. Our Maternal Fetal Care Center coordinates clinical care with our nationally ranked NICU for babies diagnosed before birth with heart defects, neurological abnormalities, diaphragmatic hernias and other correctable anatomic defects.
- Our experts provide leadership in several clinical trials aimed at developing new treatments for female sexual dysfunction, in addition to the creation of a new sexual medicine division.
- Our facility received certification from SHARE as the first hospital in Ohio to offer an advanced, multidisciplinary perinatal loss program.
- We are part of a research collaborative funded through March of Dimes addressing the challenge of preterm birth by studying the role of progesterone in labor and how to manipulate the hormone therapeutically to prevent or delay preterm births.
- The gynecologic cancer care team is continuing to study the use of CyberKnife® radiosurgery and chemotherapy in women with recurrent gynecologic malignancies, and is researching options for preserving fertility for women with gynecologic cancers, including presurgical egg retrieval followed by egg freezing or IVF, and fertility sparing surgery.

We welcome your feedback on how we can work together to further enhance the obstetrical and gynecologic care for women and look forward to seeing you at the American Congress of Obstetricians & Gynecologists Annual Meeting in May.



Chairman, Department of Obstetrics & Gynecology **UH Case Medical Center** Arthur H. Bill Professor of Reproductive Biology Case Western Reserve University School of Medicine Drs. Honor Wolfe and David Hackney, Elizabeth Ruzga, CNM, and Dr. Stacey Ehrenberg



Department of **Obstetrics &** Gynecology

UH MacDonald Women's Hospital is a regional destination for referring physicians and patients seeking the most advanced maternal and fetal medicine services and features the unique ability to provide the highest level of care for high-risk pregnancies and high-risk neonates through our physical connection to University Hospitals Rainbow Babies & Children's Hospital – ranked #2 for neonatology by U.S. News & World Report.

A diverse and multitalented group that excels in general and specialized patient care, resident and fellowship education and clinical research, physicians in the Department of Obstetrics & Gynecology at UH Case Medical Center hold national and international leadership positions and, between them, are on the editorial boards of several national medical journals.

The Department of Obstetrics & Gynecology at University Hospitals Case Medical Center and Case Western Reserve University School of Medicine provides access to nationally recognized obstetrician gynecologists, the latest clinical research and innovative treatments and technologies for women at every stage in their lives. High-quality programs and services are provided through a compassionate team of highly trained and dedicated specialists at University Hospitals MacDonald Women's Hospital – Ohio's only hospital devoted solely to women's health. The department is also distinguished for its legacy of innovations in reproductive health and for training tomorrow's clinical and research leaders.

UH CASE MEDICAL CENTER

Among the nation's leading academic medical centers, UH Case Medical Center is the primary affiliate of **Case Western Reserve University School of Medicine.**

With more than 1,000 registered beds, UH Case Medical Center provides primary, specialty and subspecialty medical and surgical care. Located in the heart of Cleveland's University Circle on a beautiful 35-acre campus, UH Case Medical Center includes general medical, intensive care and surgical units, as well as three major specialty hospitals:

University Hospitals MacDonald Women's Hospital University Hospitals Rainbow Babies & Children's Hospital **University Hospitals Seidman Cancer Center**

Our physicians and researchers – who also serve as faculty at Case Western Reserve University School of Medicine – are leaders in their respective fields, and their ongoing clinical research programs push the boundaries of medical progress.

Our dedication to clinical research and education has played a major role in building UH Case Medical Center's rich legacy of medical innovation, and continues to this day. Coupled with a commitment to implementing the latest therapies and integrating with the most technologically advanced hospitals and community facilities, UH Case Medical Center offers a depth of care and scope of services unmatched by any other medical center in Ohio.



THE PRIMARY AFFILIATE OF Case Western Reserve University School of Medicine

The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Case Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a national leader in medical research and education, and consistently ranked among the top research medical schools in the country by U.S. News & World Report. Through their faculty appointments at Case Western Reserve University School of Medicine, physicians at UH Case Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.

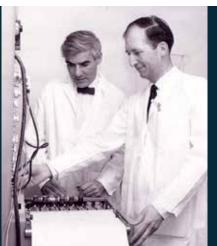


Department of Obstetrics & Gynecology

Through its seven divisions, UH MacDonald Women's Hospital at UH Case Medical Center provides comprehensive care for adolescents and women with conditions of the reproductive system. Teams of experts – including specialists from UH Rainbow Babies & Children's Hospital, UH Seidman Cancer Center and UH Urology Institute – leverage the latest technologies and clinical advances to provide personalized care plans and treatment options that empower women to make decisions regarding their care.

- Behavioral Medicine
- Female Pelvic Medicine & Surgery Center
- General Obstetrics & Gynecology
- Gynecologic Oncology
- Maternal Fetal Medicine/Neonatology
- Nurse Midwifery
- Reproductive Endocrinology & Infertility

UH MacDonald Women's Hospital is ranked by U.S. News & World Report as one of America's Best Hospitals for gynecologic care.





Tribute to John Hawks Kennell, MD, 1922 – 2013

Dr. John H. Kennell's pioneering research in the area of parent-infant bonding revolutionized delivery room and hospital practice throughout the world by revealing the positive health impact to the family in allowing mothers to hold their newborns immediately after birth, bringing fathers into the delivery room and opening the doors to young children to visit their new siblings.

Dr. Kennell, described as "kind, gracious and wise" by those who worked alongside him, was born in 1922 in Reading, Pa., and grew up in Buffalo, N.Y. After graduating from medical school in 1946 from the University of Rochester School of Medicine, he began his residency in pediatrics at Children's Hospital Medical Center in Boston, which was broken up by a two-year stint in the U.S. Navy.

Dr. Kennell came to Cleveland in 1952 to run the renovated prematurity suite at UH Rainbow Babies & Children's Hospital and serve as a professor of pediatrics at Case Western Reserve University School of Medicine. There he laid the groundwork for his successors, building University Hospitals' reputation for pre-eminence in neonatology. He would eventually

become a faculty member in the division of developmental behavioral pediatrics.

He and colleague Marshall Klaus, MD, gained worldwide attention for their 1976 book, Maternal-Infant Bonding: The Impact of Early Separation or Loss on Family Development, where they encouraged mothers to hold their newborns after birth – now the standard of care. The two went on to collaborate on additional books on the motherinfant bonding process and the benefits of doulas. He was quoted as saying, "No one was paying attention to what the baby wanted."

Dr. Kennell also was one of the first to use his developmental behavioral pediatric background to provide insight into the emotional benefits of grieving parents holding their infants who were stillborn or those who die soon after being born.

Dr. Kennell won many awards, including the C. Anderson Aldrich Award from the American Academy of Pediatrics for his contributions to the field of child

development. In 2009, the Rainbow Babies & Children's Foundation John Kennell, MD Chair of Excellence in Pediatrics was created in his honor. He continued to work with UH Rainbow Babies & Children's Hospital medical students and work on research projects into his late 80s.

During his tenure at University Hospitals, Dr. Kennell served as attending pediatrician of the neonatal nursery at UH MacDonald Women's Hospital, director of the Family Clinic and pediatric clinics at UH Rainbow Babies & Children's Hospital, and pediatrician in charge at UH Rainbow Babies & Children's Hospital.

"John Kennell was of small stature. but a giant in his field," said Avrov Fanaroff, MD, the Eliza Henry Barnes Emeritus Chair in Neonatology and Professor Emeritus at the School of Medicine. "He added the caring to curing and practiced family-centered care before the term had been coined." The team is led by **James Liu, MD**, Chairman of the Department of Obstetrics & Gynecology at UH Case Medical Center, and Arthur H. Bill Professor of Reproductive Biology at Case Western Reserve University School of Medicine. Dr. Liu has been at the forefront of clinical research that uncovered the biological processes behind women's health issues and has helped develop effective treatments. Dr. Liu is a member of the NIH Advisory Committee for the Study of Women's Health Across the Nation and is the principal investigator for the NIH Contraception Trials Network, Cleveland sites. Recently, Dr. Liu was appointed to the Board of Trustees at North American Menopause Society and to the editorial board of the journal, Menopause. He also served as Past Principal Investigator for the NIH Women's Health Initiative.

James M. Goldfarb, MD, MBA, Medical Director of the UH Fertility Center, and Clinical Professor of Reproductive Biology at Case Western Reserve University School of Medicine, is board-certified in reproductive endocrinology and infertility, and obstetrics and gynecology. Specializing in infertility, in vitro fertilization, reproductive endocrinology and fertility preservation in cancer patients, Dr. Goldfarb's program was responsible for the first IVF birth in Ohio in 1983, the world's first IVF/surrogate birth in 1986 and Ohio's first birth from preimplantation genetic diagnosis (PGD) in 2004. He is past president of the Society for Assisted Reproductive Technologies and a co-founder of the Partnership for Families Program, a unique philanthropic program that provides funding for qualifying patients.

Marjorie Greenfield, MD, Director of General Obstetrics & Gynecology, and Professor of Reproductive Biology and Pediatrics at Case Western Reserve University School of Medicine, is a trusted advisor for both OB/GYN residents and expectant parents. She is the author of two highly regarded books, Dr. Spock's Pregnancy Guide (2003) and The Working Woman's Pregnancy Book (2008). Dr. Greenfield also serves as Vice Chair of the American College of Obstetrics and Gynecology's Inservice Test Development Committee.

Dr. James Liu **EXPERTS**

OBSTETRICS & GYNECOLOGY

All National Institutes of Health (NIH) funding for basic and clinical research is awarded to the School of Medicine at Case Western Reserve University.

NATIONALLY RECOGNIZED EXPERTS

Sheryl Kingsberg, PhD, is an international leader in sexual medicine. She is Director of the Division of Behavioral Medicine and Co-Director of the Sexual Function and Vulvovaginal Health Program at UH Case Medical Center, and Professor of Reproductive Biology and Psychiatry at Case Western Reserve University School of Medicine. Known for her clinical research as well as her work as a clinician and educator in the treatment of female sexual disorders, Dr. Kingsberg is a past president of the International Society for the Study of Women's Sexual Health. She is currently consulting with a number of pharmaceutical companies who are developing novel treatment options for hypoactive sexual desire disorder, dyspareunia and anorgasmia. Dr. Kingsberg leads a team of experts in the division of Behavioral Health that specializes in women's health issues – one of a handful across the nation housed within an OB/GYN department. Under Dr. Kingsberg's direction, UH is working to enhance its current perinatal and neonatal bereavement program with the recent accreditation as a SHARE Pregnancy and Infant Loss Support, Inc. chapter – the only one in Ohio.

Shawn E. McCandless, MD, Director of the Division of Pediatric Genetics at UH Rainbow Babies & Children's Hospital, Director of the Center for Human Genetics, and Associate Professor of Genetics, Pediatrics and Pathology at Case Western Reserve University School of Medicine, is interested in the treatment of genetic disorders, focusing his research primarily on developing better treatments for individuals with inborn errors of metabolism and Prader-Willi syndrome. His team is focusing its attention on developing protocols for managing infants with urea cycle disorders and mitochondrial energy metabolism disorders diagnosed by newborn screening and long-term outcomes in those patients. Dr. McCandless is part of the Center for Inherited Disorders of Energy Metabolism at Case Western Reserve University. He is on the Board of Directors and the Program Chair for the Society for Inherited Disorders of Metabolism, a Fellow in the American College of Medical Genetics and the American Academy of Pediatrics, and a member of American Society of Human Genetics.

Neal S. Rote, PhD, is Vice Chair for Academic Affairs and Director of the Division of Research at UH MacDonald Women's Hospital, and William H. Weir Professor of Reproductive Biology and Professor of Pathology at Case Western Reserve University School of Medicine. Dr. Rote's research interests are in reproductive immunology and human trophoblast differentiation. Areas of special interest include pathophysiology of recurrent miscarriage related to antiphospholipid

antibodies and the physiology of placental trophoblast differentiation including intercellular fusion and invasion of the decidua and regulation of membrane phospholipid and annexin V redistribution during those processes. He is actively studying the expression and physiologic role of captured retroviruses (endogenous retroviruses [ERV]) in placental development and was the first to describe a normal physiologic role for an ERV protein. His research has been funded through the NIH for 32 years. He has served on many NIH study sections and as a reviewer for the most prominent journals in the area of Obstetrics and Gynecology.

Honor Wolfe, MD, Mary D. Fergus Chair and Director of the Division of Maternal Fetal Medicine at UH Case Medical Center, and Professor of Reproductive Biology at Case Western Reserve University School of Medicine, has built strong collaborative relationships with neonatologists at the adjoining nationally ranked UH Rainbow Babies & Children's Hospital. This partnership has created one of the few sites in the country offering care for all phases of high-risk pregnancies and deliveries conveniently located in a single facility. Dr. Wolfe has an extensive teaching background, as well as research grant support, and she was a co-investigator for the NIH's Early Brain Development in Twins study from 2004 to 2009. She received the Dru Carlson Memorial Award for Best Research in Ultrasound and Genetics in 2006 and has published in journals including the New England Journal of Medicine and the American Journal of Obstetrics and Gynecology.

Michele C. Walsh, MD, MS, is Director of the Division of Neonatology and the William and Lois Briggs Chair in Neonatology at UH Rainbow Babies & Children's Hospital, and Professor of Pediatrics at Case Western Reserve University School of Medicine. She serves as Co-Director of the UH Rainbow Neonatal Research Center and is principal investigator of the NIH's National Institute of Child Health and Human Development (NICHD) Neonatal Research Network at the School of Medicine, where she also leads the Cuyahoga County, Ohio, site of the NICHD National Children's Study. She has dedicated her work to the serious challenges facing premature babies.

Steven Waggoner, MD, Director of the Division of Gynecological Oncology, Medical Director of the Women's Oncology Unit at UH Seidman Cancer Center, and an Associate Professor of Reproductive Biology at Case Western Reserve University School of Medicine, has been recognized as a Top Doctor for 10 consecutive years. Dr. Waggoner is a member of the National Cancer Institutefunded Gynecologic Oncology Group, where he is a researcher and principal investigator. His research interests include cancer survivorship, fertility preservation, and the impact of gynecologic cancer on a patient's caregivers and society.

Hypoactive Sexual Desire Disorder (HSDD) is the most common sexual dysfunction among women of all ages and is estimated to affect nearly 1 in 10 women in the United States, UH MacDonald Women's Hospital offers comprehensive diagnostic and treatment services for women with sexual dysfunction through its program for Sexual

Targeting Help and Hope for Women Experiencing **Sexual Dysfunction**

UH Case Medical Center Offers First-of-its-Kind Collaborative Sexual Health Clinic in Ohio

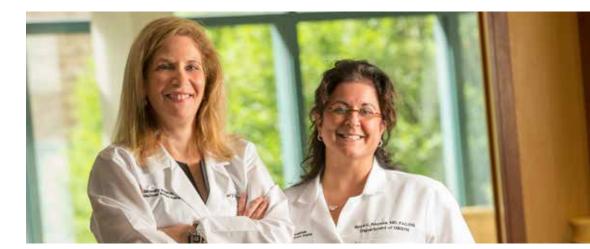
Health and Vulvovaginal Disorders, one of the only programs of its kind in Ohio. The program is led by Sheryl Kingsberg, PhD, and Roya Rezaee, MD, Medical Director of the Women's Health Center. and Assistant Professor of Reproductive Biology at Case Western Reserve University School of Medicine.

Offering a unique multidisciplinary approach utilizing psychologists, gynecologists and physical therapists, and including team members who are internationally recognized experts in sexual medicine, the program helps women with hypoactive sexual desire disorders, issues of the menopause transition, vulvar pain disorders, vulvar dystrophies, vaginismus, genital syndrome of menopause, anorgasmia, recurrent vaginitis, vulvar dermatitis and other

sexual health conditions. It also offers services in the management of the emotional, psychological and relationship components of these conditions.

Dr. Kingsberg, a past president of the International Society for the Study of Women's Sexual Health and a member of the Board of Trustees of the North American Menopause

Society, is considered a key thought leader in female sexual medicine and an internationally invited speaker who lectures on sexual dysfunction and enhancing communication and assessment skills for health care providers. She also is sought out by advocacy groups wanting to learn more about women's health care.



Drs. Sheryl Kingsberg and Roya Rezaee

DRIVING EXCITING NEW **APPROACHES TO TREATING** SEXUAL DYSFUNCTION

Dr. Kingsberg is actively involved in clinical research, primarily in the development of new pharmacologic treatments for sexual disorders in women. She recently co-authored the published results of a Phase III study that could produce the first nonhormonal biopharmaceutical treatment option for sexual dysfunction in premenopausal women. The study authors concluded that flibanserin,

a daily oral pill, significantly improved the number of satisfying sexual events in women, as well as increased sexual desire. The drug was also associated with significant reductions in distress associated with low desire, a characteristic of HSDD in premenopausal women.

Dr. Kingsberg also is the national principal investigator for a Phase II clinical trial for TBS-2, Tefina, an investigational nasal testosterone gel to treat Female Orgasmic Disorder, and is a key investigator for another investigational pharmacologic treatment for HSDD,

Bremelanotide, a melanocortin agonist. UH Case Medical Center is one of 30 centers testing the safety and efficacy of different doses of the testosterone nasal gel and will be a site for the Phase III trial for Bremelanotide.

Dr. Rezaee has been treating sexual dysfunction and vulvovaginal disorders in patients for more than 15 years and is focused on educating the next generation of obstetrician/gynecologists and women's health providers on sexual health issues. She received the **CREOG National Faculty Award for** Excellence in Clinical Teaching from the

American College of Obstetricians and Gynecologists and has been repeatedly named a Best Doctor in America.

Together, Drs. Kingsberg and Rezaee have written chapters on sexual dysfunction and published in the arena of pregnancy and postpartum sexual health. They recently published an invited review article on hypoactive sexual desire disorder in one of the most highly acclaimed scientific journals on women's health, Menopause: the Journal of the North American Menopause Society.



Opening the Door to Quality Obstetrics and Pediatric Care for All Women

UH MACDONALD WOMEN'S HOSPITAL EFFORT AIMS TO REDUCE MATERNAL-FETAL MORTALITY AND MORBIDITY AROUND THE GLOBE

WONDOOR (Women, Neonates, Diversity, Outreach, Opportunities and Research) is an innovative global health education program in Obstetrics/Gynecology and Reproductive Biology at UH MacDonald Women's Hospital that grew out of the concept that women should have the same opportunity to access quality health care no matter where they live.

The WONDOOR program, led by Margaret Larkins-Pettigrew, MD, MEd, MPPM, FACOG, Associate Professor of Reproductive Biology at Case Western Reserve University School of Medicine, and Tia Melton, MD, Assistant Professor of Reproductive Biology at the School of Medicine, both OB/GYNs at UH Case Medical Center, seeks to improve maternal and neonatal health through local and international collaborations.

Complementing the UH MacDonald Women's Hospital OB/GYN residency program, the WONDOOR Global Health Scholars Certificate Program at

UH MacDonald Women's Hospital residents travel to Guyana, and other countries of their choosing, empowers residents to gain global health experiences. The Global Health Scholars program granted certification to its first graduate and increased the number of global health scholars to 14 in 2013. The scholars continue to develop programs that address general, as well as global health challenges, which will result in increased provider cultural awareness and more informed consumer health behavior.

Scholars' posters were accepted for presentation at the 2013 Perinatal Mental Health Meeting and the Association of Professors of Gynecology and Obstetrics/Council on Resident Education in Obstetrics and Gynecology 2014. Scholars presented at the International

Federation of Gynecology and Obstetrics in Rome on the topic of global collaboration and training and at the International Conference in Guyana in collaboration with other global health residency programs.

WONDOOR's other international efforts include the first OB/GYN residency program in the country of Guyana. In collaboration with the Guyanese Ministry of Health, Georgetown Public Hospital Corporation and the University of Guyana, WONDOOR selects six Guyanese residents to participate in a four-year OB/GYN residency. Through WONDOOR, U.S. residents accompany physicians from a number of top U.S. teaching hospitals to Guyana to assist in specialty training. The attending physician spends one week each month at Georgetown Public Hospital in Guyana instructing the residents in themed modules. The Guyanese trainees graduate as full-fledged obstetrics and gynecology consultants after four years of training.

In keeping with WONDOOR's commitment to meet the challenges of women in our own backyard, the Global Health scholars will begin a new collaboration with the Cleveland Department of Public Health's MomsFirst program, which offers case management and home visits to pregnant mothers through the child's second birthday. MomsFirst participants are educated on prenatal care, breastfeeding, family planning and preconception counseling. Global Health scholars host monthly two-hour "Ask the Doc" sessions for participants.

The scholars continue to develop programs that address general health and global health challenges for both the Cleveland academic and lay communities. These efforts will result in increased provider cultural awareness and more informed consumer behavioral health choices. A quarterly Global Health film series and panel discussion with local experts will address the Cleveland homeless and refugee populations, immigrant health and the ongoing HIV epidemic in youth.

The Global Health Fellowship in Obstetrics & Gynecology offers junior faculty members concurrent experiences at Case Western Reserve University, as well as the opportunity to work with the refugee and immigrant community. Fellows spend 18 months in under-resourced communities concentrating on program strategies that impact the health care of women from many ethnic backgrounds.

Dr. Melton received the Key Bank Leadership Award 2013 for a program including a local collaboration with the Cleveland Medical Association, a regional branch of the National Medical Association, whose goal is to assist under-represented minority physicians narrow the gap in health care disparities through innovative community outreach programs. Dr. Melton also initiated a collaborative program with Case Western Reserve University School of Nursing and Georgetown Public Hospital to enhance midwifery training through educational exchange programs.

CLINICAL ADVANCES

- UH MacDonald Women's Hospital is one of only five hospitals in Ohio and 90 in the nation chosen to participate in Best Fed Beginnings, a first-of-itskind learning collaborative sponsored by the National Initiative for Children's Healthcare Quality (NICHQ) and the U.S. Centers for Disease Control and Prevention. Its mission is to assist birthing hospitals in becoming accredited as Baby Friendly, a unique program that implements 10 specific steps outlined by the Baby Friendly Hospital Initiative, an international program of UNICEF and the World Health Organization and endorsed by the American Academy of Pediatrics. The 10 steps encourage, support and promote breastfeeding among new mothers. Through the program, led by Libby Svoboda, RN, IBCLC, and Susan Lasch, MD, an OB/GYN at UH MacDonald Women's Hospital, and Assistant Professor of Reproductive Biology at Case Western Reserve University School of Medicine, **UH MacDonald Women's Hospital** has raised its breastfeeding rate to 85 percent. Separately, Lydia Furman, MD, a pediatrician at UH Rainbow Babies & Children's Hospital, and Associate Professor of Pediatrics at the School of Medicine. undertook Breast for Success, a direct service program focused on overcoming
- barriers to breastfeeding for lowincome, inner-city mothers through education. She developed a curriculum with modules utilizing games, teachreteach strategies and interactive learning. The program, funded by the Mt. Sinai Health Care Foundation, was developed in collaboration with the Cleveland Department of Public Health's MomsFirst Project, which serves high-risk pregnant women, their children and families in the City of Cleveland, to reduce disparities in birth outcomes and infant mortality.
- Sanjay P. Ahuja, MD, MSc, a fellowship-trained pediatric hematologist who serves as Director of the Hemostasis & Thrombosis Program at UH Rainbow Babies & Children's Hospital, and an Associate Professor of Pediatrics at Case Western Reserve University School of Medicine, and Lisa Perriera, MD, MPH, a fellowship-trained gynecologist at UH MacDonald Women's Hospital, and an Assistant Professor of Reproductive Biology at the School of Medicine, are leading a team providing multidisciplinary treatment for women with menorrhagia and bleeding disorders. The Women with Bleeding Disorders Clinic is a partnership between UH MacDonald Women's Hospital and UH Rainbow

- Babies & Children's Hospital, and is the first clinic in the region to provide streamlined nonsurgical intervention to treat bleeding disorders in women.
- A newly approved use for Botulinum A toxin (BOTOX®) may offer an advanced treatment option for bladder irritability and urgency incontinence. Sangeeta Mahajan, MD, a urogynecologist in the Female Pelvic Medicine and Reconstructive Surgery Center, Director of the Joint Fellowship in Female Pelvic Medicine and Reconstructive Surgery at UH Urology Institute, and an Assistant Professor of Reproductive Biology at Case Western Reserve University School of Medicine, said BOTOX is an option for patients who failed all other forms of medical therapy for overactive bladder and are contemplating a permanent catheter. BOTOX prevents overactive bladder muscles from contracting so actively and avoids the side effects that come with medications. The endeavor is funded by Allergan Inc. Studies have shown an 80 percent improvement in incontinence.
- Improving pregnancy outcomes and decreasing infant mortality is the goal of the Centering Pregnancy Program and Centering Parenting Program at UH MacDonald Women's Hospital in collaboration with the Department of

Family Medicine. The group prenatal care program, led by Celina Cunanan, CNM, MSN, Director of the Division of Nurse Midwifery at UH MacDonald Women's Hospital, and Gretchen Mettler, CNM, PhD, Director of the Centering Pregnancy Program, and Clinical Assistant Professor of Reproductive Biology at Case Western Reserve *University School of Medicine,* provides prenatal health assessment, education and psychosocial support to young pregnant women. The program has reduced preterm births to 10.2 percent and the incidence of low birth-weight babies to 11.2 percent – well below the national average. The Centering Pregnancy model also increases breastfeeding rates, visit compliance, patient satisfaction, and patient knowledge and readiness for birth. Other components include Dancing for Birth, an exercise program that combines dance and fitness with essential childbirth preparation skills, and Ohio's only Centering Parenting program – one of only 22 sites in the country. The group care model joins inner-city mothers and infants into tightly knit groups for baby's first year to acquire parenting skills and provide well-baby checks, postpartum care and annual gynecological exams. The most recent addition is a group prenatal care model for women with diabetes. This model brings mothers together with similar complications for prenatal care to learn about pregnancy, diabetes and healthy lifestyles.



Dr. Marjorie Greenfield, Celina Cunanan, CNM, and Drs. Justin Lappen and Jamie Byler



Drs. Lisa Perriera and Sanjay Ahuja

Contact any of the physicians featured in this publication at OB-GYN.Innovations@UHhospitals.org.

CLINICAL ADVANCES

- The Family Planning Center at **UH MacDonald Women's Hospital** is the only regional program that features a family planning, fellowshiptrained OB/GYN physician, a formal family planning resident education program, and psychologists dedicated solely to women's behavioral health. The center, led by Dr. Lisa Perriera, helps women recover from loss due to miscarriage or pregnancies with genetic anomalies, and offers contraception for women with complex medical conditions. In September 2013, the center received accreditation as the only Ohio chapter for SHARE – Pregnancy and Infant Loss Support, Inc. SHARE is highly respected and acknowledged as the definitive resource on the needs and rights of bereaved parents and their families.
- Brooke Rossi, MD, a gynecologist and reproductive endocrinologist at UH MacDonald Women's Hospital, and Assistant Professor of Obstetrics and Gynecology at Case Western Reserve University School of Medicine, and Abigail Glick, MD, pediatric endocrinologist at UH Rainbow Babies & Children's Hospital, and Instructor of Pediatrics at the School of Medicine, teamed up to diagnose and treat polycystic ovary syndrome (PCOS) in adolescents and young women. This

- multidisciplinary clinic accepts patients between the ages of 12 and 21. The PCOS clinic offers an opportunity for early intervention to help restore menstrual cycles, reduce insulin resistance, reduce hair growth and successfully manage weight.
- Nancy Cossler, MD, Vice Chair of Quality and Patient Safety and Director of OB/GYN Residency at UH MacDonald Women's Hospital, and Assistant Professor of Reproductive Biology at Case Western Reserve University School of Medicine, is leading a broad range of initiatives aimed at providing the best outcomes for mothers and their babies. The efforts are focused on eliminating preterm deliveries without medical indication, promoting therapies before delivery for better lung function in preterm babies, training in teamwork concepts that include the patient as an equal member of the health care team, boosting breastfeeding rate, decreasing primary C-section rates and supporting vaginal birth after Cesarean (VBAC). Through the Scheduled Delivery Project, UH MacDonald Women's Hospital not only achieved the Ohio Perinatal Quality Collaborative goal of less than 5 percent induction of labor of Cesarean delivery in women less than 39 weeks without a medical indication



Drs. Abigail Glick and Brooke Rossi

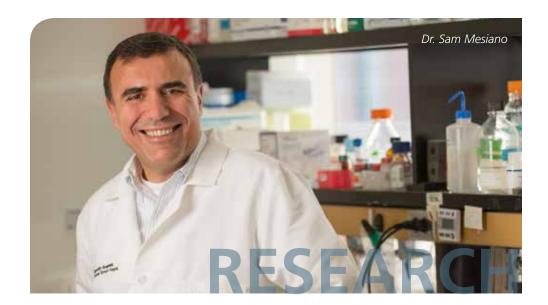
Dr. Nancy Cossler

for early delivery, but maintained it. For 2012, UH MacDonald Women's Hospital's rate fell below 1 percent. This reduces delivery of low birthweight babies and transfers to neonatal intensive care units. UH MacDonald Women's Hospital's 2011 C-section rate for first-time mothers having a single baby was 15.7 percent – substantially lower than Ohio's reported rate of 26 percent. The decrease was sustained in 2012 and remains below Ohio state averages. This is significant because of UH MacDonald Women's Hospital's high-risk population. The hospital also posted a VBAC success rate of 77 percent and an episiotomy rate of 1.6 percent.

Outcomes data through October 2013 demonstrate that UH MacDonald Women's Hospital has operated more than one year (410 days) without a Serious Safety Event for the mother or her newborn based on sustained teamwork and the implementation of multiple quality initiatives such as consensus guidelines for the management of labor and protocols for the safe use of medications that augment or induce labor.

 UH MacDonald Women's Hospital offers fully accredited residency and fellowship programs that are part of UH Case Medical Center, the primary teaching affiliate of Case Western Reserve University School

of Medicine. The resident education program in Obstetrics and Gynecology offers comprehensive training for careers in women's health. The fellowship programs in Reproductive Endocrinology and Infertility, Gynecologic Oncology and Female Pelvic Medicine and Reconstructive Surgery are highly competitive and designed to prepare fellows for productive careers in academic medicine. WONDOOR offers a new and innovative global health residency program that grew out of the concept that women should have the same opportunity to access quality health care no matter where they live. The residency in OB/GYN attained national stature and attracted graduates from the top tier of U.S. medical schools and diverse geographic areas such as Stanford University, University of Texas at Austin, University of Miami and University of Michigan. The pass rate for certification exams of our graduates through the American Board of Obstetrics and Gynecology is 100 percent for the written exam in the past five years and 100 percent for the oral exam in the past three years. Residents have presented their research at every major subspecialty meeting, and last year a team of residents won a national prize from the American College of OB/GYN Junior Fellows for their work in the community, teaching reproductive health to Cleveland Metropolitan School District middle school students.



More than one in 10 babies is born premature every year and more than 1 million children die each year from complications of preterm birth. And preterm birth rates are increasing.

> Sam Mesiano, PhD, researcher in the Department of Obstetrics & Gynecology at UH MacDonald Women's Hospital, and Associate Professor of Reproductive Biology at Case Western Reserve University School of Medicine, is part of the Ohio research collaborative that secured a \$10 million grant from the March of Dimes – the first statewide collaborative ever to do so – to prevent premature birth. Dr. Mesiano's laboratory, which is running one arm of the grant developed and led out of Cincinnati Children's Hospital Medical Center, is attacking the challenge by exploiting something Mother Nature already provides – the hormone progesterone.

During pregnancy, progesterone is produced in large amounts by the placenta and, as its name implies, is progestational; it functions to promote pregnancy mainly by keeping the uterine muscle relaxed and quiescent. The end of pregnancy, he said, is triggered by

The Northeast Ohio portion of the March of Dimes grant is awarded to the School of Medicine at Case Western Reserve University.

EXPLOITING MOTHER NATURE TO PREVENT PRETERM BIRTHS

Ohio-led Team Takes on Premature Birth Through March of Dimes Prematurity Research Center

the withdrawal of the "progesterone block to labor." Dr. Mesiano said his goal is to understand how progesterone promotes uterine guiescence and how its actions are withdrawn to initiate labor. "We hope to then exploit that process therapeutically to augment its progestational actions as a strategy to prevent or delay preterm birth," he said.

Currently, progesterone-based therapies are used to prevent preterm birth but they are effective in only a small subset of pregnancies and the therapy is limited to women at risk for preterm birth.

"The main thrust of what we do in the lab is to understand the molecular biology of how progesterone promotes pregnancy and causes the muscle cells of the uterus to stay relaxed," he said. "If we understand that mechanism, then we can identify targets for therapies to make it work even better."

Dr. Mesiano's lab developed cell line models for muscle cells of the uterus and is using those cells to tease out signaling pathways and genes involved in mediating the effects of progesterone to keep the cells relaxed.

"Our cell models provide excellent screening platforms to test different drugs that could modulate the progesterone

signaling pathways in favor of sustaining pregnancy," he said. "This can open the pipeline to the development of drugs that specifically target the uterine muscle."

Dr. Michele C. Walsh said the March of Dimes' funding of the statewide collaborative recognizes the unique strengths of perinatal research in Ohio.

"Prematurity is the leading cause of infant mortality – a huge problem in Ohio and across the United States," Dr. Walsh said. "This collaboration, and the work in Dr. Mesiano's lab, is critical to advance our understanding of the triggers behind premature labor. The project has the potential to discover additional treatments to prevent prematurity."

Dr. Mesiano's research is part of the March of Dimes Prematurity Research Center, Ohio Collaborative, a transdisciplinary research program involving investigators at Cincinnati Children's Hospital Medical Center, University of Cincinnati, The Ohio State University, Nationwide Children's Hospital, Case Western Reserve University, UH MacDonald Women's Hospital and MetroHealth Medical Center. Investigators at Vanderbilt University, Dartmouth College, University of Iowa and Washington University in St. Louis are also involved.

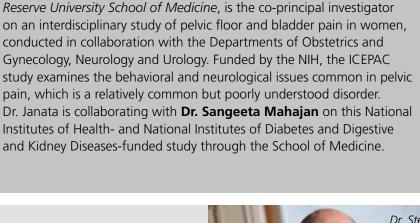
UH Case Medical Center's physicians, surgeons and scientists – all members of the faculty of Case Western Reserve University School of Medicine – are leaders in their respective fields, and their ongoing research programs are at the leading edge of medical progress. A strong emphasis on translational, or "bench-to-bedside," research means that new and innovative treatments and technologies transfer more rapidly from the research laboratory to actual patient care.

TOMORROW'S **CURES TODAY.**

Dr. Steven Waggoner leads the **UH Seidman Cancer Center** Gynecologic Oncology Division in groundbreaking work in clinical trials, both investigator-initiated and in conjunction with the Gynecologic Oncology Group. The gynecologic cancer care team, in conjunction with the Department of Radiation Oncology, is a leader in the development of radiosurgery for recurrent gynecologic cancers.

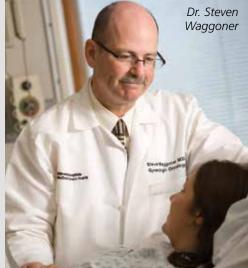
An ongoing clinical trial utilizing CyberKnife® radiosurgery and chemotherapy in women with recurrent gynecologic malignancies offers hope for women with tumors arising in previously irradiated tissue, or in areas not conducive to surgical resection. The gynecologic cancer care team also is collaborating with the Division of Reproductive Endocrinology on options to preserve fertility for women with

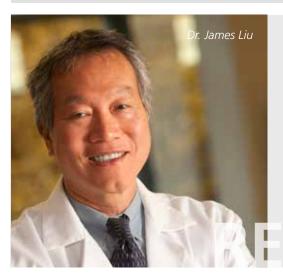
gynecologic cancers, including cervical and early-stage ovarian cancers. Fertility preservation options include presurgical egg retrieval followed by egg freezing or IVF, fertility sparing surgery for women with cervical and certain ovarian cancers, medical treatment of select endometrial cancers, access to donor egg/sperm programs, and egg retrieval prior to pelvic radiation therapy or ovary toxic chemotherapy.



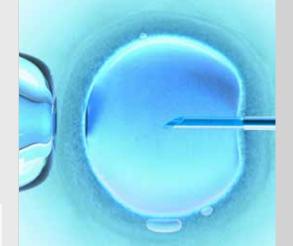
Jeffrey Janata, PhD, Division Director of Psychology at UH Case

Medical Center, and Associate Professor of Psychiatry at Case Western





Dr. James Liu is participating in a multicenter clinical trial targeting treatment of hypothalamic amenorrhea and associated infertility. The study is trying to establish the efficacy of a brain hormone, Gonadotropin Releasing Hormone (GnRH), to induce ovulation for infertile women with primary GnRH deficiency.



Learn more online! Find articles and video commentary on the latest innovations and clinical advancements at UHhospitals.org/OB-GYNInnovations.

All National Institutes of Health (NIH) funding for basic and clinical research is awarded to the School of Medicine at Case Western Reserve University.

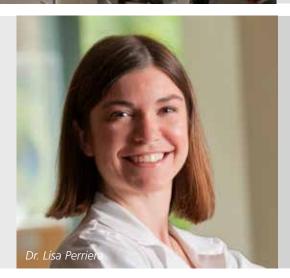
Angelina Gangestad, MD, obstetrician/ gynecologist in the Division of General Obstetrics & Gynecology, and an Assistant Professor of Reproductive Biology at Case Western Reserve University School of *Medicine*, is the local lead investigator in The Violet Petal Study evaluating the safety and effectiveness of an investigational medication for the management of moderate to severe endometriosis-associated pain. Dr. Gangestad is also studying the efficacy of vaginal microbicides targeting HIV to reduce disease transmission.





Dr. Neal S. Rote is leading an NIH study using state-of-the-art technology to investigate the role of retroviruses in normal development of the human placenta. Over millions of years, all mammals have captured retroviruses into their DNA and turned them into normal cellular genes that are particularly activated in the placenta. Dr. Rote was the first to discover a physiologic role for one of these endogenous viruses (ERV3) in humans. This study lays the foundation for understanding normal placental development and possible complications, such as infertility and early pregnancy loss. This study is funded by the Eunice Kennedy Shriver National Institute of Child Health & Human Development.

Dr. Liu and Dr. Lisa Perriera were accepted as participants in the NIH Contraceptive Clinical Trials Network. This is a multisite, governmentfunded research group with the objective of bringing innovative contraceptive options to the market in the United States.







The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Case Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a national leader in medical research and education and consistently ranked among the top research medical schools in the country by U.S. News & World Report. Through their faculty appointments at Case Western Reserve University School of Medicine, physicians at UH Case Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.

All National Institutes of Health (NIH) funding for basic and clinical research is awarded to the School of Medicine at Case Western Reserve University.

The Harrington Project for Discovery & Development is a

\$250 million national initiative to accelerate the development of medical breakthroughs by physician-scientists into medicines that benefit patients. It is a unique model that aligns, through mission and structure, nonprofit and for-profit resources into a system for drug development. The Harrington Project thereby addresses a set of major challenges in medicine that have created a development gap for promising discoveries.

The Harrington Discovery Institute at University Hospitals Case Medical Center, the nonprofit component of The Harrington Project, enables physician-scientists to translate their clinical insights and research into novel therapies that benefit patients and society. Through an annual competition, the Harrington Discovery Institute selects a group of medical innovators known as Harrington Scholar-Innovators whose projects are funded and actively guided by drug discovery experts toward the clinical realm.

HARRINGTON DISCOVERY INSTITUTE AT UNIVERSITY HOSPITALS CASE MEDICAL CENTER

A CATALYST FOR A NEW MODEL IN DRUG DEVELOPMENT

The 2014 class of Harrington Scholar-Innovators selected

by the institute's scientific advisory board are: Jayakrishna Ambati, MD

University of Kentucky

Darren Carpizo, MD, PhD Rutgers Cancer Institute of New Jersey

Garret FitzGerald, MD University of Pennsylvania

Mark Humayun, MD, PhD University of Southern California

John Kheir, MD Harvard University

Rahul Kohli, MD, PhD University of Pennsylvania Gavril Pasternak, MD, PhD Memorial Sloan-Kettering Cancer Center

Irina Petrache, MD Indiana University

David Rowitch, MD, PhD University of California, San Francisco

Jean Tang, MD, PhD Stanford University

David Wald, MD, PhD Case Western Reserve University

To learn more, visit HarringtonDiscovery.org.



Roger Greenberg, MD, PhD Harrington Scholar-Innovator 2013 University of Pennsylvania, Philadelphia, Pa. Hereditary breast and ovarian cancer

Dr. Greenberg, associate professor in the University of Pennsylvania's Perelman School of Medicine, has discovered an enzyme that is required to repair certain types of DNA damage that occur during the development of hereditary breast and ovarian cancer. He believes that he can inhibit this enzyme to create irreparable DNA damage in the cancer cells, causing the cells to die. This mechanism could be the foundation for new, more effective chemotherapy drugs.

"The support provided by the Harrington Discovery Institute is very unique and very special."

Through the relationship-building opportunities that the Harrington Discovery Institute offers, he hopes to lay the groundwork for translating his laboratory work into a powerful new cancer treatment. "To develop the necessary expertise to do this on our own would be tremendously timeconsuming, difficult to assemble and prohibitively expensive," he notes. "The support provided by the Harrington Discovery Institute is very unique and very special." Read more at Harrington Discovery.org/Scholar-Innovator 2013.

To be notified of the next Harrington Scholar-Innovator Grant call for proposals, email Natalie. Haynes @UHhospitals.org.

In 1996, UH created a clinical trials office at what is now UH Case Medical Center. At the time of its creation, the focus and management of clinical trials was managed by a small staff. This team was charged with the fiscal management of a handful of clinical trials, as well as regulatory oversight of human subject protections. By 2000, the office became known as the UH Research Institute.

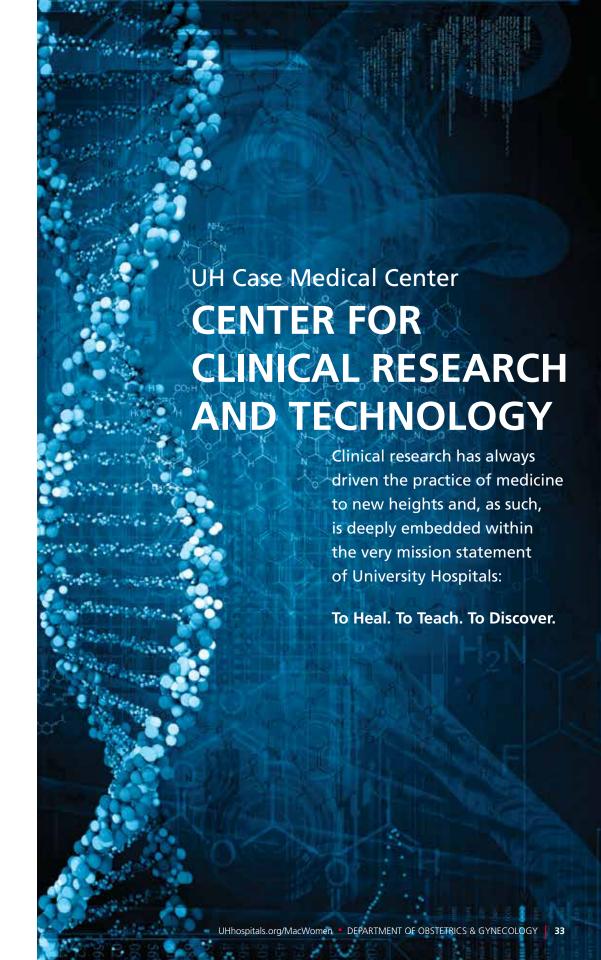
From 1996 to 2003,

the clinical research enterprise at the academic medical center continued to expand, resulting in exponential growth of both the staff and the research activity managed. The institute grew into a much broader support department and became the Center for Clinical Research and Technology (CCRT), which consists of seven offices dedicated to developing a standardized platform ensuring the responsible conduct of research for patients through scientific, regulatory, legal, ethical and fiscal review.

The CCRT now provides infrastructure, programmatic, personnel and administrative support for all research activities performed at UH by UH medical or scientific staff. These medical scientists are national and international leaders in their respective fields and are committed to identifying standards of excellence and potential areas for improvement to promote and facilitate clinical and translational research.

By 2013, the CCRT activities amounted to over \$42 million at UH and \$167 million of UH activity related to the affiliation between **UH** and Case Western Reserve University School of Medicine. These funds emanate from nearly 1,200 active grants and contracts at UH and nearly 700 additional grants that annually fund the shared faculty of UH and the School of Medicine through nearly 2,300 active human research protocols.

To learn more about the Center for Clinical Research and Technology directly, visit UHhospitals.org/Clinical-Research, call 216-844-5576 or email ClinicalResearch@UHhospitals.org.



Clinicians and Scientists at UH Case Medical Center and Case Western Reserve University School of Medicine





Department of **Obstetrics & Gynecology**

Chair

James H. Liu, MD Arthur H. Bill Professor of Reproductive Biology

Vice Chairs

Nancy Cossler, MD Vice Chair for Patient Safety and Quality

Steven E. Waggoner, MD Vice Chair for Clinical Affairs

Neal S. Rote, PhD

Vice Chair for Academic Affairs

Behavioral Medicine

Sheryl A. Kingsberg, PhD Director, Division of Behavioral Medicine, Professor

Jeffrey W. Janata, PhD Associate Professor

Female Pelvic Medicine & Reconstructive Surgery

Sangeeta T. Mahajan, MD Fellowship Program Director Assistant Professor

Bogdan Orasanu, MD Clinical Instructor

Aisha Taylor, MD Clinical Instructor

General Obstetrics & Gynecology

Marjorie Greenfield, MD Division Director, Professor

Karen L. Ashby, MD Associate Professor

Corinne Bazella, MD Assistant Professor

Jamie Byler, MD Assistant Professor

Nancy J. Cossler, MD Residency Director, Assistant Professor

Angelina K. Gangestad, MD Assistant Professor

Kim Gecsi, MD Assistant Professor

Justin Lappen, MD Assistant Residency Director, Assistant Professor

Margaret Larkins-Pettigrew, MD Associate Professor

Susan J. Lasch, MD Assistant Professor

Tia M. Melton, MD Assistant Professor

Lisa Perriera, MD Head, Section of Family Planning, Assistant Professor

Roya Rezaee, MD Medical Director, Women's Health Center Assistant Professor

Martin F. Wieczorek, MD Director of Obstetrical Education, Assistant Professor

Lisa Wolfe, CNP

Gynecologic Oncology

Steven E. Waggoner, MD Vice Chair for Clinical Affairs. Division Director, Associate Professor

Amy Armstrong, MD Clinical Instructor

Jan Maxson, CNP, CNS Lindsay Means, CNP **Emily Petersen, CNP** Kimberly Resnick, MD Assistant Professor

Sareena Singh, MD Clinical Instructor

Kristine M. Zanotti, MD Associate Professor

Maternal Fetal Medicine

Honor Wolfe, MD Mary D. Fergus Chair Division Director

Professor

Jane Corteville, MD Assistant Professor

Method Duchon, MD Assistant Professor

Stacey Ehrenberg, MD Assistant Professor

David Hackney, MD Assistant Professor

Noam Lazebnik, MD Professor

Elizabeth Ann Ruzga, ND, CNM

Assistant Clinical Professor

George A. Van Buren, MD Assistant Professor

Neonatology

Michele Walsh, MD, MS

Division Director William and Lois Briggs Chair in Neonatology Professor

Prasad Achanti, MD Clinical Associate Professor

Jill Baley, MD Professor

Monika Bhola, MD Assistant Professor

Moira Crowley, MD Assistant Professor

Avrov Fanaroff, MD Eliza Henry Barnes Emeritus Chair in Neonatology Professor Emeritus

Jonathan Fanaroff, MD, JD Associate Professor

Katherine Griswold, MD Assistant Professor

Maureen Hack, MD Professor

Anna Maria Hibbs, MD, **MSCR**

Assistant Professor

Richard Martin, MD

Drusinsky-Fanaroff Chair in Neonatology Professor

Mary Nock, MD Associate Professor

Mary Elaine Patrinos, MD Assistant Professor

Allison Payne, MD Instructor

Thomas Michael Raffay, MD Instructor

Eileen Stork, MD

Professor Andrea Trembath, MD, MPH Instructor

Sreekanth Viswanathan, MD Assistant Professor

Deanne Wilson-Costello, MD Professor

Gulgun Yalcinkaya, MD Assistant Professor

Qin Yao, MD Assistant Professor

Nurse-Midwifery

Celina C. Cunanan, CNM. MSN

Division Director, Assistant Clinical Professor

Katherine Austinson, CNM, MSN

Clinical Instructor

Amy Coleman, CNM, MSN Clinical Instructor

Ashley Doolos, CNM, MSN Clinical Instructor

Rachel N. Kay, CNM, MSN, MPH

Assistant Clinical Professor Ann Konkoly, CNM, MSN

Clinical Instructor

Lauren MacGregor-Banak, CNM, MSN

Clinical Instructor

Ellen Margles, CNM, MSN Assistant Clinical Professor

Jean Marino, CNP, MSN Clinical Instructor

Gretchen G. Mettler, CNM, MS, PhD

Director of Nurse-Midwifery Education, Clinical Assistant Professor

Leslie Stroud, CNM, MSN Assistant Clinical Professor

Reproductive Endocrinology and Infertility

Sonia Elguero, MD Clinical Instructor

James Goldfarb, MD Director, UH Fertility Center, Clinical Professor

James H. Liu, MD Department Chair, Arthur H. Bill Professor of Reproductive Biology

Bansari Patel, MD Clinical Instructor

Barry Peskin, MD Assistant Clinical Professor

Brooke Rossi, MD Clinical Instructor

Suruchi Thakore, MD Clinical Instructor

Research

Neal S. Rote, PhD Vice Chair for Academic Affairs, Division Director, William H. Weir Professor of Reproductive Biology

Sam Mesiano, PhD Associate Professor

Independent Specialists on Staff

Samir Ahuja, MD Natalina Andreani, MD Elizabeth Brandewie, MD David Burkons, MD Shahid Butt, MD J. Jeffery Cameron, MD Mark Chapman, MD Jeffrey Christian, MD Laura David, MD Edie Derian, MD Mary Haerr, MD William Hahn, MD Israel Henig, MD Shin Huang, MD Karen Jaffe, MD Thomas Janicki, MD Michael Koroly, DO

Lori Mullen, MD Daniel Rzepka, MD Joseph Shawi, MD Marc Snelson, MD Maurice Soremekun, MD Janette Stephenson, MD Niranjana Thaker, MD

Patricia McNamara, MD

Jennifer Miller, MD

Deborah Levitan-Gerson, MD

Paula Usis, MD Sandhia Varyani, MD Margie Wenz, MD Nancy Wollam-Huhn, MD C.K. Woo, MD

Physicians receive their academic appointments and their accompanying titles from Case Western Reserve University School of Medicine.

To refer a patient or learn more about UH Case Medical Center Department of Obstetrics & Gynecology, call **216-844-3941** or visit **UHhospitals.org/MacWomen**



Cleveland | Ohio