

## Department of Obstetrics and Gynecology

Increasing Connections and Care  
in Our Community and Beyond

2015 Annual Report



# Message from the Chairman



As we look back on 2015, I am proud to share the breadth and depth of community engagement emanating from the Department of Obstetrics and Gynecology at NorthShore University HealthSystem (NorthShore). Further, I hope these examples serve to inspire others, both to catalogue existing partnerships with various community entities and initiate new relationships consistent with our overarching mission “to preserve and improve human life”.

I have chosen two examples of departmental partnerships, each with the State of Illinois, to illustrate the immense potential we have to influence clinical care by being open to collaboration within our own communities. The first is the State Perinatal Network, initially created to match patient acuity and associated medical needs with those medical centers possessing the capabilities and technology to meet that acuity. NorthShore obstetrics via Maternal-Fetal Medicine and NorthShore pediatrics via Neonatology constitute one of only 10 statewide perinatal centers that receive maternal, fetal and neonatal transfers. Our partnership with referring hospitals includes a robust quarterly case review process, regular education on relevant clinical topics for physician and nurse providers, and accreditation activities to ensure that all hospitals under our network are delivering the quality of care commensurate to their own technology and available services. This connection to our community is described in far greater detail beginning on page 8. I invite you to learn more about this important responsibility of ours and how successfully we manage these activities.

Our statewide perinatal depression hotline (1-866-364-MOMS) is my second example because it represents a hugely successful outreach into our local, regional, state and even national communities, as depicted in the figures on pages 10 and 11. The hotline was established in 2003 as a critical safety net and as a prerequisite for perinatal depression screening. The State of Illinois quickly recognized the value we created in a hotline staffed by trained mental health workers, rather than providing only triage services by lay staff, and authorized financial support which has continued ever since. In 2015, the hotline crossed an amazing threshold: more than 7,000 calls from patients, their families, healthcare workers, emergency service personnel and others. More than 800 women were able to obtain the urgent care they needed by engaging with our hotline.

These two examples illustrate the power of partnerships and the reality that a clinical department comprised of talented and motivated colleagues can foster programs and initiatives with broad impact beyond the traditional boundaries of the physician-patient relationship. I sincerely hope that you are inspired as you read more about our community engagement and that you become as proud as I am of the Department members who have made all of this possible.

**Richard K. Silver, MD**

Chairman and Chief Academic Officer  
 The Auxiliary of NorthShore Chair of Obstetrics and Gynecology  
 Department of Obstetrics and Gynecology  
 NorthShore University HealthSystem  
**Clinical Professor and Associate Dean**  
**University of Chicago Pritzker School of Medicine**

## Clinical Care

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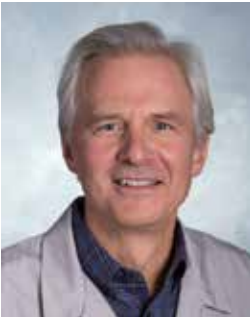
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# Obstetrics and Gynecology

## Obstetrics



**Mark Neerhof, DO**  
 Division Director and  
 Clinical Associate Professor



**Marion Jelcz, MD**  
 Associate Director and  
 Senior Clinician Educator

### Clinical Mission and Services

The Division of Obstetrics is dedicated to preserving and improving the health of women and newborn infants. We are focused on providing the highest standard of care both during and after pregnancy. We provide unsurpassed educational opportunities for students, residents and fellows in an effort to ensure that clinical excellence will be perpetuated. We are also committed to increasing the body of knowledge in women's health through research.

### Division Committees

The following are multidisciplinary committees that are active in the Division.

- The Obstetric Practice Committee reviews, updates and publishes practice guidelines for the Division.
- The Perinatal Morbidity and Mortality Committee reviews the care surrounding clinical complications and adverse outcomes.
- The Obstetric Clinical Outcomes Committee reviews quality data.
- The Obstetric Safety Committee designs and implements initiatives and training programs in an effort to maximize patient safety.

*Note: The Outcomes and Safety committees have merged in 2016.*

### 2015 Highlights and Achievements

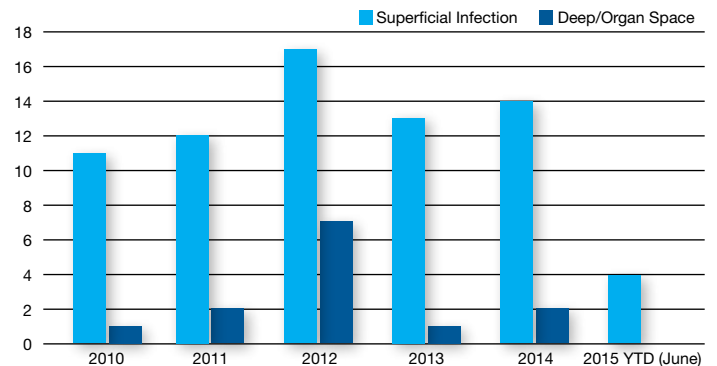
- Clinical outcomes at NorthShore compare favorably to similarly higher acuity institutions across the country. Data compiled by the National Perinatal Information Center demonstrates that the NorthShore cesarean section rate is lower and the vaginal birth after cesarean (VBAC) rate is higher when compared to a subgroup of similar institutions (academic regional perinatal centers) as well as to the entire database that includes all types of hospitals. Our commitment to clinical excellence has resulted in favorable outcomes for our patients. *(See chart above right.)*

### Obstetrics 2015 Clinical Outcomes

	NorthShore	Subgroup Average	Database Average
Deliveries	4,875	4,104	3,971
Babies born	5,061	4,203	4,048
Primary cesarean section rate	15.8%	18.4%	18.3%
Repeat cesarean section rate	11.3%	14.0%	15.8%
Total cesarean section rate	27.1%	32.4%	34.1%
VBAC rate	24.2%	18.1%	13.4%
Postpartum readmission (within 42 days of discharge)	0.9%	1.3%	1.0%

- As a result of the work of the Outcomes Committee, Obstetrics realized an important reduction in the incidence of surgical site infections in 2015—well below benchmark. In 2012, the Outcomes Committee identified that the surgical site infection rates at NorthShore presented an opportunity for clinical performance improvement. This was particularly true among patients who were overweight. In response, a task force from the Safety Committee was developed and conducted a thorough investigation. After careful consideration of options, the group recommended a change in procedure for preoperative and operating room surgical prep for all patients.

### Obstetrics Surgical Site Infection



- The Safety Committee implemented Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS®), which is a program focused on four skills: communication, leadership, situation monitoring and mutual support. All members of the Department participated in this multidisciplinary effort, which involved role-playing in simulated emergent circumstances.
- The Safety Committee developed two new initiatives for the coming year. The first is the Triage Program. Three rooms will be dedicated to triage for patients presenting to Labor and Delivery with an Advance Practice Nurse focusing on efficiently triaging patients. The second initiative is On-Time Starts, a program to monitor and enforce the timeliness of surgical starts and adherence to the surgical schedule. These initiatives were developed in an effort to improve workflow, increase efficiency and, consequently, improve safety in Labor and Delivery.

*continued>*

# Gynecology



**Kenneth Nelson, MD**  
*Vice Chair of Quality, Division Director and  
 Clinical Associate Professor*

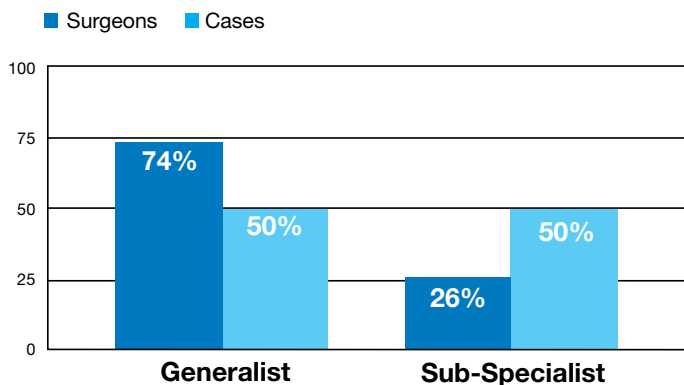
## Clinical Mission and Services

The Division of Gynecology includes all of our Department’s specialists and encompasses the disciplines of office practice, adolescent gynecology, and contraceptive and family planning services, as well as surgical procedures in both outpatient and inpatient settings. The Division recognizes that gynecologic surgery in particular is an iterative area within our specialty. As such, members are committed to lifelong and collaborative learning for the benefit of our patients. Our Division’s collegial culture is manifested by preceptor programs in which more experienced members proctor others in order to elevate the quality and procedure-related expertise across the Division. We have employed all of the latest technologies, including robotics, to bring state-of-the-art care to the community of patients we serve. We are committed to providing this quality care in an atmosphere of safety, support, cost-effectiveness and partnership with all of our patients.

## 2015 Highlights and Achievements

- In 2015, the Division of Gynecology reflected the national trends of gynecological surgery. Our NorthShore patients are increasingly able to avoid highly invasive surgery, with its attendant risks and recovery, in favor of less invasive, office-based options, particularly for menorrhagia. Gynecologists are able to offer options such as progestin-containing intrauterine devices and procedures such as endometrial ablation within the office setting enabling patients to experience relief from symptoms with significantly less disruption and inconvenience. The development of these technological alternatives has been a driver of changes in physician practice patterns resulting in improved outcomes, value-based episodes of care, fewer risks of complications and improved patient satisfaction. Additionally, gynecologists are increasingly managing patient care in collaboration with surgical subspecialists in Gynecologic Oncology, Urogynecology and Gynecological Pain and referring complex cases to those colleagues as evidenced in the chart below left.
- A differentiating strength of our Department is our robust peer review process. A multidisciplinary peer review committee convenes monthly. Cases for committee review are selected from a list of cases identified by specific criteria that may be related to surgical complications. The criteria include excessive operating time, intraoperative consultation, intraoperative transfusion, unanticipated Intensive Care Unit admission, postoperative febrile morbidity, thromboembolic events or readmission within 30 days. Cases are also referred from various teams, including Nursing, Quality, Risk Management and others. The review process ensures anonymity, open dialogue, multidisciplinary perspectives and collaborative disposition. At the recommendation of the Gynecologic Morbidity and Mortality Committee, cases may be referred to the Division Director and/or the Department Chairman for additional review, education and process improvement. In 2015, the committee reviewed 48 cases of which 17 percent were referred for additional review. The process has successfully enabled education and clinical improvement resulting in improved patient care and safety.
- The Division of Gynecology takes full advantage of the Grainger Center for Simulation and Innovation (GCSI). In order to fulfill our educational mission, we organize full-day simulations with both instrumentation and new technologies several times each year. We also perform clinical simulations to foster best practice management. These are highly valued and highly effective learning opportunities that enhance our commitment to patient safety.
- Gynecologic surgeons collaborated in 2015 to proactively assess value improvement and cost containment related to surgical supplies in the operating rooms. Frequently performed procedures were analyzed to determine opportunities for standardization that would improve outcomes while minimizing variation and overall cost per case. By the end of the fiscal year, the targeted procedures demonstrated significant and sustained reduction in cost of surgical supplies with no adverse impact on outcomes or patient care.

## Gynecologic Surgeons and Cases 2015



**Gustavo Rodriguez, MD**

*Division Director and Clinical Professor  
Matthews Family Chair of Gynecologic  
Oncology Research*

**Clinical Mission and Services**

Intensive international research efforts and advances in both surgery and chemotherapy over the past decade are leading to improved outcomes for women with gynecologic cancers, including higher cure rates. The Division of Gynecologic Oncology has been at the forefront of progress, supporting an aggressive research program aimed at prevention, early detection and improved treatment for ovarian and other women's cancers. The Division brings together a collaborative team that sees patients at all four NorthShore Hospitals. The Division of Gynecologic Oncology is committed to a multidisciplinary approach to treating women with malignant or premalignant conditions of the gynecologic tract. Our mission is to provide comprehensive and compassionate care of our patients while performing basic and clinical research that will make a significant impact in our community and beyond.

**2015 Highlights and Achievements**

- The outstanding quality of care provided by the Division was recognized again this year (2015) with the Professional Research Consultants (PRC) Excellence in Healthcare Top Performer Award and the highly competitive PRC Excellence in Healthcare 5-Star Award. This designation is given to the top-ranking Divisions as compared to the entire NorthShore Medical Group and peer institutions nationally.
- Jean Hurteau, MD, spearheaded a robust clinical trials program with a number of trial opportunities for women with gynecologic cancers. He continues to play an active role in protocol development within the Gynecologic Oncology Group, a national research consortium that is a leading organization in gynecologic oncology clinical research.
- Our multidisciplinary team cares for a growing number of patients, leveraging the latest technology and innovative techniques, including robotic surgery and other minimally invasive procedures. Carolyn Kirschner, MD, directs our minimally invasive program, which is the most active in gynecologic oncology in the city of Chicago. Elena Diaz Moore, MD, is our newest partner and spearheads palliative care initiatives. She was the recipient this past year of a NorthShore grant funded by The Auxiliary of NorthShore University HealthSystem, with the specific aim of critically evaluating clinical outcomes associated with implementation of structured integration of palliative care support for women with gynecologic malignancy.
- Work has continued under a multimillion-dollar Department of Defense award granted to the Division for studies related to the prevention of endometrial cancer and ovarian cancer. These studies are being spearheaded by Gustavo Rodriguez, MD, and his laboratory team and include collaborations with scientists at Harvard University, Inova and Walter Reed Army Medical Center.
- Dr. Rodriguez was awarded a grant from Bears Care to support research related to ovarian cancer prevention. In addition, The Auxiliary of NorthShore held a successful American Crafts Exhibition (ACE) raising funds in support of the Clinical Gynecologic Cancer Prevention Program at NorthShore. The Clinical Program seeks to screen women in our community for ovarian and endometrial cancer risk, with implementation of tailored strategies to mitigate risk. Also, a close collaboration has been developed with Katharine Yao, MD, who is overseeing the Breast Screening and Prevention Program in the NorthShore Department of Surgery. Many women in our community have an increased genetic-based risk for both breast and gynecologic cancer. This sets the stage for a personalized approach to prevention and treatment.

# Maternal-Fetal Medicine



**Scott MacGregor, DO**  
*Vice Chair for Specialty Care,  
 Division Director  
 and Clinical Professor*

## Clinical Mission and Services

The Division of Maternal-Fetal Medicine (MFM) is a group of specialists committed to clinical service, research and educational opportunities related to patients with high-risk pregnancies and their referring physicians. The Division's commitment to quality and loyalty is evident in the Fetal Diagnostic Centers (FDCs) of the Centers for Maternal and Fetal Health (CMFH) at NorthShore Evanston Hospital and in each of the seven satellite sites throughout the north and northwest Chicago metropolitan area. The CMFH consolidates the services of the Division of Maternal-Fetal Medicine and the FDC offering integrated and advanced technology and services.

## 2015 Highlights and Achievements

- The Division of Maternal-Fetal Medicine has continued its commitment to quality improvement in clinical services, research activities and educational opportunities. Our group's primary clinical site is Evanston Hospital; however, we also provide services at seven other FDC sites in Glenbrook, Highland Park, Lake Bluff, St. Francis-Evanston, Arlington Heights, Libertyville and Gurnee. Shelly Tien, MD, MPH, joined the Division becoming the tenth MFM specialty physician.
- In the past year, the FDC provided more than 30,000 services. The FDCs are certified by the American Institute of Ultrasound in Medicine (AIUM), and the ultrasonographers maintain certification in first trimester genetic screening in both nuchal translucency and nasal bone. The CMFH continues to be one of the leaders in genetic screening and testing for fetal aneuploidy.
- The Division has developed a curriculum for simulation training for physicians, fellows, residents and students at the Grainger Center for Simulation and Innovation (GCSI). Ian Grable, MD, MPH, provides leadership of the program and curriculum development. Dr. Grable's intern orientation simulation included training in vaginal delivery, shoulder dystocia, pre-eclampsia, postpartum hemorrhage with Bakri balloon, breech delivery, perineal laceration placement, suturing, dilation and curettage, intrauterine device placement and other skills. In 2015, simulation training for residents was added that included obstetric hemorrhage with Bakri balloon and B-Lynch suture, forceps deliveries, fetal demise counseling, cerclage placement and, for MFM fellows, communication training, counseling in periviable gestations, chorionic villus sampling and percutaneous umbilical cord blood sampling.
- Dr. Grable was selected as a Medical Education, Research, Innovation, Teaching and Scholarship (MERITS) Fellow. This highly competitive program is sponsored by the University of Chicago to provide participants with the conceptual and practical skills required for successful future careers as medical education research scholars.
- A commitment to quality also involves our educational programs and research activities. NorthShore is the primary site for the University of Chicago-sponsored MFM fellowship training program under the direction of David Ouyang, MD. Four fellows—Edom Yared, MD, Alicia McCarthy MD, PhD, Amanda Stephens, MD, and Patrick Schneider, MD—are actively involved in our clinical services and research activities.
- Our Division is also dedicated to education and quality improvement for obstetric patients in the State of Illinois and our Perinatal Network. Ann Borders, MD, MSc, MPH, is the Executive Director of the Illinois Perinatal Quality Collaborative (ILPQC). ILPQC was formed in 2013 upon recommendation of the Illinois legislature with support of the Illinois Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant and March of Dimes (MOD) to form a statewide quality collaborative to work closely with the Illinois Regionalized Perinatal System on both obstetric and neonatal quality improvement. In the two years since, the ILPQC formally launched initiatives that include neonatal nutrition, avoidance of early elective delivery, birth certificate optimization and Golden Hour, which attempts to optimize neonatal resuscitation in the first hour of life.
- Dr. Borders also serves on the March of Dimes Big 5 National Perinatal Quality Collaborative Executive Leadership Team and serves as the Illinois Team Lead. The MOD Big 5 is a network made up of the physicians, nurses and MOD staff from the five states that represent 38 percent of births in the United States: Texas, California, Florida, New York and Illinois. The MOD Big 5 is currently developing a national initiative on optimization of antenatal steroids utilization and, in Illinois, will roll this out in collaboration with ILPQC.
- Our Division has continued its commitment to clinical and laboratory research, and a number of new projects have been developed during this past fiscal year. The Division currently has 14 active, Institutional Review Board-approved clinical trials. These research efforts have resulted in numerous presentations at leading scientific research meetings and numerous publications in leading peer-reviewed journals.
- In partnership with Northwestern University, we are one of only 14 clinical trial centers of the NICHD-sponsored MFM Unit Network under the direction of Mara Dinsmoor, MD, MPH. The MFM Unit participation allows our patients access to the most innovative and important clinical trials. Recent studies have included randomized placebo-controlled trial of antenatal late preterm steroids, randomized placebo-controlled trial in patients at risk for congenital cytomegalovirus infection, a trial screening patients for hepatitis C to learn its natural history in pregnancy, and randomized trial comparing traditional electronic fetal heart rate monitoring in labor to traditional monitoring plus fetal echocardiographic monitoring.

# Reproductive Endocrinology and Infertility



**Eve Feinberg, MD**  
 Division Director and  
 Clinical Assistant Professor

## Clinical Mission and Services

NorthShore has 11 physicians who specialize in Reproductive Endocrinology and Infertility (REI). These physicians are independent practitioners belonging to a variety of practice models. This variety provides both the patients and physicians in the NorthShore community a number of choices when faced with problems of the reproductive endocrine system. One of the most commonly encountered problems is infertility, which affects 8 to 10 percent of the population.

Over the last 30 years, great strides have been made in providing treatment for individuals and couples experiencing infertility. The repertoire of available treatments continues to expand as technology evolves in this dynamic field. The goal of treatment is a singleton live birth, and many recent advances have improved our ability to achieve this goal. Comprehensive chromosome screening has enabled transfer of a single euploid embryo with high implantation and live birth rates. Further research is under way with the use of time-lapse imaging during embryo culture to learn if morphokinetic changes in the embryo can be used as a noninvasive means of achieving the same goal.

Fertility preservation, both for cancer patients and as a means to electively delay childbearing, has also seen a tremendous increase in success. The advent of vitrification technology has revolutionized the ability to successfully freeze, warm and later inseminate an oocyte. After more than 1,500 babies were born without an observed increase in either congenital anomalies or chromosome abnormalities, the Society for Assisted Reproductive Technologies (SART) and the American Society for Reproductive Medicine (ASRM) declared in 2013 that oocyte vitrification is no longer considered to be experimental.

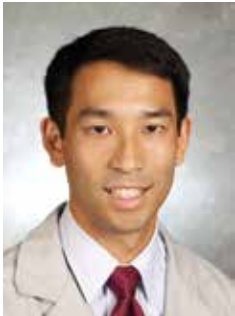
Access to care remains an ever-present issue in the area of infertility. While Illinois is one of 15 states to have mandated insurance coverage for fertility care, more than half of all patients still do not have coverage. The Kevin J. Lederer for Life Foundation ([lifefindsaway.org](http://lifefindsaway.org)) was established in 2014 to provide education

and financial assistance to individuals and couples struggling with infertility. Kevin Lederer, MD, was a reproductive endocrinologist and infertility specialist who died in 2013 at the age of 55. The Foundation honors his legacy and the Life Foundation is a collaborative effort among all NorthShore-affiliated practices and others in the Chicagoland area. Eve Feinberg, MD, Founder and Executive Director, was invited to discuss the Life Foundation at the 2015 ASRM Access to Care Summit in Washington, DC.

## 2015 Highlights and Achievements

- Division members serve as reviewers and editors for many of our major journals. Sigal Klipstein, MD, is a reviewer for the *Journal of Assisted Reproduction and Genetics* and *Fertility and Sterility*<sup>®</sup>. Allison Rodgers, MD, who joined the Division in 2015 and is a reviewer for *Human Reproduction*. Dr. Eve Feinberg serves on the Editorial Board for *Fertility and Sterility*.
- Educating both colleagues and the next generation of physicians is a priority for Division members. John Rinehart, MD, PhD, JD, was an invited speaker at this year's American Congress of Obstetricians and Gynecologists (ACOG) meeting where he gave two lectures on "The Basic Infertility Evaluation" and "Age and Fertility." Dr. Rinehart regularly lectures to the University of Chicago third-year medical students and was awarded the rank of Senior Clinician Educator at the University of Chicago School of Medicine. Carolyn Coulam, MD, was invited to the 14th International Symposium for Immunology of Reproduction in Varna, Bulgaria, and presented "Association between immunologic causes and superfertility among women experiencing recurrent pregnancy loss." She also spoke at the Reproductive Immunology Masterclass, Royal College of Obstetrics and Gynecology in London, England, and lectured on "Treatment of recurrent implantation failure with intralipid." Susan Davies, MD, presented "Basic Infertility Evaluation and Advances in In Vitro Fertilization" to the Department of Medicine at NorthShore, and Dr. Sigal Klipstein was the 2015 recipient of the Holden K. Farrar, Jr. MD Lecturer of the Year Award. She regularly lectures to the third year medical students and also welcomes them into her office for on-site learning. Dr. Allison Rodgers and Shweta Nayak, MD (our newest Division member) are both active participants in the Objective Structural Clinical Examination (OSCE) given to third-year medical students.
- National service to both the greater OB/GYN and REI community is a priority for our Division members. Dr. Sigal Klipstein is the Chair of the Committee on Ethics for ACOG. She additionally acts as the ACOG liaison to the ASRM Ethics Committee and to the American Academy of Pediatrics Committee on Bioethics. Dr. Eve Feinberg is the Chair of the Member Services Committee for the Society for Reproductive Endocrinology and Infertility (SREI) and is on the SREI Board of Directors. She also serves on the Practice Committee for SART and will be an American Board of Obstetrician Gynecologists REI Subspecialty Board Examiner in 2016.

# Gynecological Pain and Minimally Invasive Surgery



**Frank Tu, MD, MPH**

*Division Director and  
Clinical Associate Professor*

## Clinical Mission and Services

The Division of Gynecological Pain and Minimally Invasive Surgery (GPMIS) brings the skills and experience of subspecialists in female pelvic pain disorders and laparoscopic surgery to the NorthShore clinical, academic and research community.

## 2015 Highlights and Achievements

- Diana Atashroo, MD, continued to fuel Division growth geographically by providing services at the Gurnee and Glenbrook locations. This contributed to 8 percent overall increase in the Division productivity and patient access.
- Sangeeta Senapati, MD, MS, was invited to present at the prestigious American Gynecological and Obstetrical Society meeting in Half Moon Bay, California, on “Surgical Management of Pelvic Pain.”
- Dr. Sangeeta Senapati continues to coordinate the surgical education of the University of Chicago residents. She designed and piloted two surgical training models in the semiannual hands-on labs for the residents. These new training models were made possible by the generosity of the Matthews Family Foundation.
- The GPMIS Division had a notable presence at the AAGL Global Congress in Las Vegas, Nevada, in November. Dr. Senapati gave an oral presentation on in-bag morcellation, and Dr. Diana Atashroo demonstrated a video of an inexpensive model for excision of endometriosis. Jennifer Rosenbaum, MD, a third-year resident at the University of Chicago, represented the Division and presented “Ultrasonographic Investigation of the Mechanisms Involved in Menstrual Cramps” at a plenary session.
- Drs. Sangeeta Senapati and Diana Atashroo also served as postgraduate course faculty at the AAGL Global Congress, while Frank Tu, MD, MPH, chaired the committee selecting the Jay M. Cooper Endowment Award for the Outstanding Fellow Paper.
- Kevin Hellman, PhD, mentored high school, undergraduate and medical students in the GPMIS laboratory and taught in the “Scholarship and Discovery” class at the University of Chicago. Fourth-year University of Chicago medical student under Dr. Hellman’s supervision, Carolyn Kuhn, was awarded a Calvin Fentress Fellowship for her research on functional MRI (fMRI) of the uterus in dysmenorrhea. Posters from the Division members and the students were presented at the Society for Neuroscience and the International Pelvic Pain Society.
- Drs. Frank Tu’s and Kevin Hellman’s National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) R01 clinical trial of dysmenorrhea mechanisms Chronic Pain Risk Associated with Menstrual Period Pain, or CRAMPP, recruited its 100th participant. Related to this study, Dr. Tu was interviewed in *Cosmopolitan* magazine for a November article about why dysmenorrhea is a relatively neglected issue by scientific researchers.
- Dr. Frank Tu, as Co-Investigator, and the Division of GPMIS began collaboration on a five-year NIDDK-funded study of autonomic function and bladder pain syndrome (ICEPAC) with Thomas Chelimsky, MD, at the Medical College of Wisconsin.
- Dr. Frank Tu served on a speakers’ bureau on “Endometriosis: From Whole Genome Sequencing to Holistic Medicine” at an Abbvie-sponsored symposium in October at the American Society for Reproductive Medicine.
- Dr. Frank Tu completed his work as an officer for the International Pelvic Pain Society as past president, and served as a temporary member of a National Institute of Child Health and Human Development CHHD-R grant study section.
- The *American Journal of Obstetrics and Gynecology* published Drs. Frank Tu’s and Kevin Hellman’s study identifying a potential candidate marker for chronic pelvic pain experienced as prolonged pain symptoms following vaginal examination in women studied under a prior National Institutes of Health-funded K23 study of pelvic floor pain. The identification of this novel biomarker for future pain risk, which can be found in some pain-free women, will hopefully inform the debate about whether to offer routine pelvic exams to asymptomatic women and, consistent with a recent Veterans Administration report, encourage more detailed studies of the pelvic exam.
- Dr. Frank Tu also co-authored an invited commentary on the use of fMRI to study dysmenorrhea in *PAIN*®, the journal of the International Association for the Study of Pain.
- The NorthShore Medical Group presented Dr. Frank Tu with the highly competitive Distinguished Service: Specialty Care Award recognizing his overall performance as a specialist and leader within the three domains of distinguished service: patient loyalty, operational excellence and physician leadership.



# Urogynecology and Reconstructive Surgery



**Roger Goldberg, MD, MPH**  
*Division Director and  
 Clinical Associate Professor*

## Clinical Mission and Services

The Division of Urogynecology and Reconstructive Surgery is dedicated to improving the care of women with incontinence, painful bladder syndrome, voiding dysfunction and other pelvic floor abnormalities. The Division is actively involved in the education of University of Chicago Pritzker School of Medicine residents and medical students and also continues an Accreditation Council for Graduate Medical Education (ACGME)-approved three-year Female Pelvic Medicine and Reconstructive Surgery fellowship. The physicians and clinical staff are recognized nationally as a premier resource for clinical care, research, informatics and quality outcomes tracking in urogynecology.

## 2015 Highlights and Achievements

- During a two-year collaborative project with the NorthShore Research Institute and Health Information Technology, the Urogynecology Division developed the first-ever Structured Clinical Documentation System in its specialty. This innovation enables monitoring of clinical outcomes and quality of care, and provides a powerful platform for the Division's ongoing research and contributions to this key area of women's healthcare.
- The physicians of Urogynecology and Reconstructive Surgery Division have made important national and international contributions to their professional community. Janet Tomezsko, MD, provides leadership in the American Urogynecology Society Coding Committee; Sylvia Botros, MD, MS, is the Workshop Subcommittee Chair of the International Urogynecology Society and is the Education Committee Director of Program Director Education for the American Urogynecology Society; and Roger Goldberg, MD, MPH, is a member of the Board of Directors of the American Urogynecology Society. Peter Sand, MD, continues to have international impact through his leadership in the International Urogynecological Association.
- The Division continues to play a leading role in research and innovation. Physicians from the Division have shared their research findings and surgical expertise around the United States and internationally. Dr. Peter Sand delivered more than 15 invited lectures and Grand Rounds presentations during 2015, and Dr. Roger Goldberg's recent international lecture and surgical teaching activities have taken place in Brazil, Puerto Rico and Mexico.
- All five fellowship-trained physicians in the Division have now passed the newly offered subspecialty board examinations in Female Pelvic Medicine and Reconstructive Surgery (FPMRS). The creation of an official subspecialty has represented an important step in the advancement of quality care and research in this area of women's health. Under the direction of Dr. Sylvia Botros, the Division at NorthShore supervises the training of three University of Chicago-sponsored fellows in FPMRS, now accredited by the ACGME.

# NorthShore Perinatal Center



**Scott MacGregor, DO**  
Co-Director



**Bill MacKendrick, MD**  
Co-Director

## Clinical Mission and Services

The NorthShore Perinatal Center is one of 10 regional perinatal centers in Illinois and is supported by federal and state grants. This system was created to provide quality maternal-fetal and neonatal care services to the families in all regions of Illinois. Currently, our perinatal program serves eight referral hospitals within the north and west suburbs by promoting professional collaboration, consultation and communication to improve the health of pregnant women and their babies within the multiple communities we serve.

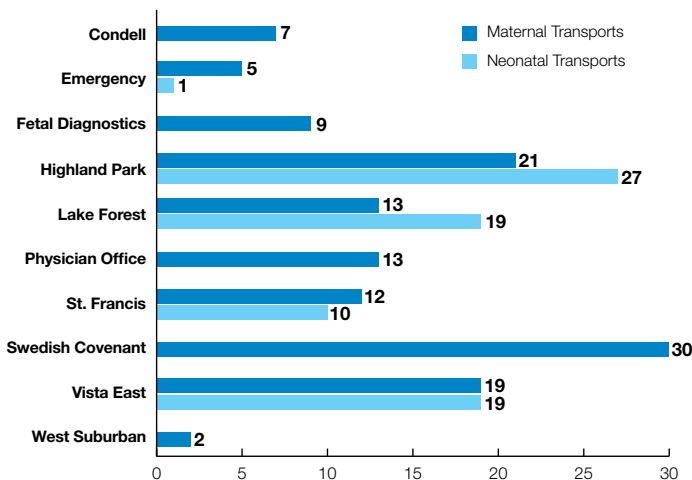
## 2015 Highlights and Achievements

The NorthShore Perinatal Center:

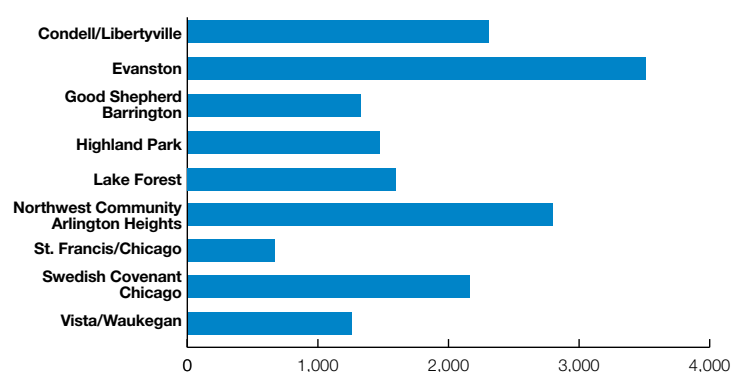
- Collaborates with referring hospitals for high-risk management and acceptance of maternal and neonatal transports. In 2015, Evanston Hospital accepted 131 maternal and 76 neonatal transports. Our perinatal network supports more than 16,000 delivered women—the largest percentage of delivery volume within the Illinois Perinatal Program.
- Acts as a liaison and resource to the hospital and to the community by supporting network activities to meet perinatal grant rules and guidelines thus adding value, expertise and quality to non-NorthShore practices across Northern Illinois.

- Provides 24-hour tertiary care center obstetrical and neonatal consultation to increase early identification of maternal-fetal and neonatal problems and to expedite consultation/referral to our tertiary care center, as needed.
- Coordinates professional educational opportunities and courses for obstetric and neonatal physicians and nurses, which include courses in Perinatal Loss and Depression, Fetal Monitoring, Neonatal Stabilization and Hemorrhage Management. The Grainger Simulation Center for Simulation and Innovation (GCSI) makes additional multidisciplinary, collaborative education possible. We provided more than 390 educational opportunities including chairing 42 meetings at referring hospitals for case review with focused education and evidence-based consensus.
- Provides comprehensive genetic services to the community including counseling, diagnostic procedures, laboratory research and follow-up.
- Provides comprehensive neonatal developmental follow-up services to all “special-care-nursery” graduates and other at-risk infants from our referral hospitals, plus those neonates with suspected or confirmed prenatal genetic syndrome.
- Monitors and collects data for the Illinois Department of Public Health (IDPH) for perinatal indicators of quality care, such as fetal, neonatal and maternal mortality rates; cesarian section rates; delivery volumes; low birth rates; and maternal and neonatal transport volumes. In addition, the Perinatal Center collects and submits state-required reports of metabolic newborn screens, newborn hearing screens, HIV and adverse outcomes via the Adverse Pregnancy Outcomes Reporting System.
- Provides essential support for IDPH triennial site visits. Each referring hospital’s resources and services are reviewed to maintain the level of care designation as determined by the Perinatal 640 Rule. For NorthShore, the 2015 IDPH review resulted in no recommendations for improvement and a designation of exceptional Level III Perinatal Center.

## Maternal and neonatal transports to Evanston Hospital



## Delivery volume by hospital within the perinatal network



## Perinatal Depression Program



**Jo Kim, PhD**

Program Director and  
Clinical Assistant Professor

### Clinical Mission and Services

Women are at greatly increased risk for clinical depression and its potentially devastating outcomes during the perinatal period. The Perinatal Depression Program (PDP) provides proactive universal screening for depression in both the pre- and postnatal periods using the Edinburgh Postnatal Depression Scale (EPDS). The program also provides an immediate, live telephone response to at-risk women by a trained and licensed professional 24/7/365 for information, advice or referral to an appropriate mental health provider.

### 2015 Achievements

- 8,620 depression and anxiety screens were administered
- 619 screens triggered a clinical response for indications of women at risk, and 225 (36 percent) of those endorsed thoughts of self-harm.
- 785 calls to the MOMS hotline.
- 26 callers were referred for emergency services based on acuity.
- Jo Kim, PhD, is the lead author on "Suicide Risk among Perinatal Women Who Report Thoughts of Self-Harm on Depression Screens" published in *Obstetrics & Gynecology*, an internationally recognized journal that promotes excellence in the clinical practice of obstetrics and gynecology.
- The NorthShore Perinatal Depression Program was featured at the 2nd Biennial Perinatal Mental Health Conference in Chicago. Dr. Jo Kim, and Laura La Porte, LCSW, presented research titled "Computerized Adaptive Testing: A New Frontier in Perinatal Depression Screening" in collaboration with Robert Gibbons, PhD, of the University of Chicago.
- Postpartum support groups were made available to 54 women in the community at no cost through a partnership with Beyond the Baby Blues (BBB), a community-based, nonprofit organization.
- The Illinois Department of Human Services (DHS) provided additional funding again in 2015. DHS awarded service agreements to the NorthShore MOMS hotline, a perinatal mood disorders hotline, to continue providing services to women and families throughout Illinois during fiscal years 2015 and 2016.
- Marley Doyle, MD, a reproductive psychiatrist, was appointed Medical Director of the program. Dr. Doyle now provides perinatal psychiatric care to obstetrical patients. Insured patients are referred by their obstetrician, and uninsured women access psychiatric care via the NorthShore Community Health Center. In addition, Dr. Doyle provides consultation to obstetric care providers regarding psychotropic medication during pregnancy and lactation.
- PDP partnered with NorthShore's Genomic Health Initiative to begin groundbreaking research into the genetic underpinnings of perinatal mood disorders.
- A pilot study is under way in collaboration with University of Chicago researcher Dr. Robert Gibbons to test the effectiveness of using computer-adaptive depression screening tools with the perinatal population.

## Perinatal Family Support Center

### Clinical Mission and Services

The Perinatal Family Support Center (PFSC) provides a wide array of social and referral services to women and their families experiencing challenges related to pregnancy, birth, prematurity or perinatal loss. Patients and their families at both NorthShore Evanston Hospital and Highland Park Hospitals' obstetrical and pediatric units are able to access services of the Center.

### 2015 Highlights and Achievements

- The top five reasons for initial referral to PFSC:

Reason	Percentage
Mental health issues	<b>38.5%</b>
High-risk pregnancy	<b>11.5%</b>
Pregnancy loss	<b>9.7%</b>
Infant Special Care Unit (ISCU) admissions	<b>7.9%</b>
Unmet patient needs	<b>4.4%</b>

- 1,700 families received services from PFSC in FY2015.
- Three five-week sessions of the Teen Education program provided anticipatory guidance and developmentally appropriate education to pregnant teens and their support person with an ongoing goal of fostering healthy outcomes. Eighteen of the 62 pregnant teens referred to PFSC elected to participate in this free program.
- 53 antenatal consults with Neonatology were performed in anticipation of support, guidance and resource needs of obstetric patients whose unborn child was diagnosed with a significant fetal anomaly.
- PFSC implements a special discharge plan for families assessed to be at high risk with the goal of fostering safe transition to the community for infants and children. This planning promotes stable transition to parenting as well as appropriate medical follow-up for their children. Most families who participated demonstrated excellent outcomes.
- 345 families or patients were provided with needs-based support with the assistance of the NorthShore Associate Board Emergency Family Fund.
- A continued partnership with Junior League of Evanston-North Shore and PFSC enabled an education and advocacy "baby shower" for 15 low-income pregnant woman and their guests.
- Nancy Goldin, LCSW, was interviewed as an expert for PBS's *The Whitney Reynolds Show* on perinatal loss that aired in November 2015.
- Peggy Healy, LCSW, shared her expertise through an in-service presentation to the NorthShore Care Management/Social Services team on "Psychosocial Support for Patients with Diabetes: The Role of the Social Worker."

# Increasing Connections and Care in Our Community and Beyond

Community outreach is an important element of our mission. We are dedicated to wellness and prevention and to broadening our impact beyond NorthShore's traditional service area. Our commitment to meeting people where they are regardless of resources is reflected in the growing number of women and families served by our innovative, compassionate programs and exceptional teams.

## Illinois Perinatal Quality Collaborative

As the Executive Director and one of the founders of the Illinois Perinatal Quality Collaborative (ILPQC), NorthShore's Ann Borders, MD, MSc, MPH, is a champion for quality improvement and patient care. The Department supports her efforts in leading this organization, which currently includes more than 100 Illinois hospitals collecting and sharing data to drive improvements in patient care. The ILPQC provides the support and infrastructure to help rapidly analyze data and provide collaborative learning opportunities that lead to new protocols to enhance patient care and safety. The latest ILPQC initiative focuses on the "Golden Hour," optimizing resuscitation for infants in the first hour of life.

"By getting the vast majority of hospitals in Illinois together, we can do even better in delivering excellent care to women and babies. We need to be out there driving public health initiatives and leading with our disease-prevention strategies," said Obstetrics and Gynecology Chairman Richard K. Silver, MD.

Our new Breastfeeding Peer Counselor Community Partnership (BPCCP), supported by a grant from and in partnership with the North Suburban Healthcare Foundation, is an exciting initiative to provide breastfeeding education and support to expectant mothers and families representing underserved populations in Evanston and Skokie. Dr. Borders is the clinical program coordinator, and her strategy includes collecting data from patients engaged with the peer counselor in order to track

breastfeeding outcomes. For this community endeavor, NorthShore is partnering with the McGaw YMCA in Evanston, the Erie Family Health Center Evanston/Skokie and Family Focus in Evanston in order to interface with low-income and at-risk women and reduce breastfeeding disparities unique to this population.

## NorthShore's Perinatal Family Support Center

NorthShore's Perinatal Family Support Center (PFSC) has been a long-standing resource providing a wide array of social and referral services to women and their families experiencing challenges related to pregnancy, childbirth, prematurity or perinatal loss. The PFSC, which formally moved into the Department of Obstetrics and Gynecology in late 2015, has seen steady and significant growth serving more women and families in need each year. More than 1,700 families were served by the PFSC in 2015. By eliminating financial barriers to obtaining these services, the work of the PFSC is another reflection of our commitment to community health and outreach.

As mental health services, social engagement and community resources for low-income and public aid patients are diminished, the PFSC's services have played an increasingly critical role for growing numbers of families at both Evanston and Highland Park Hospitals. The PFSC team engages with women early in their at-risk pregnancies, building trust that enables them to take greater advantage of services and benefit from the special human touch factor of the program.

## NorthShore MOMS Hotline Calls Nationwide

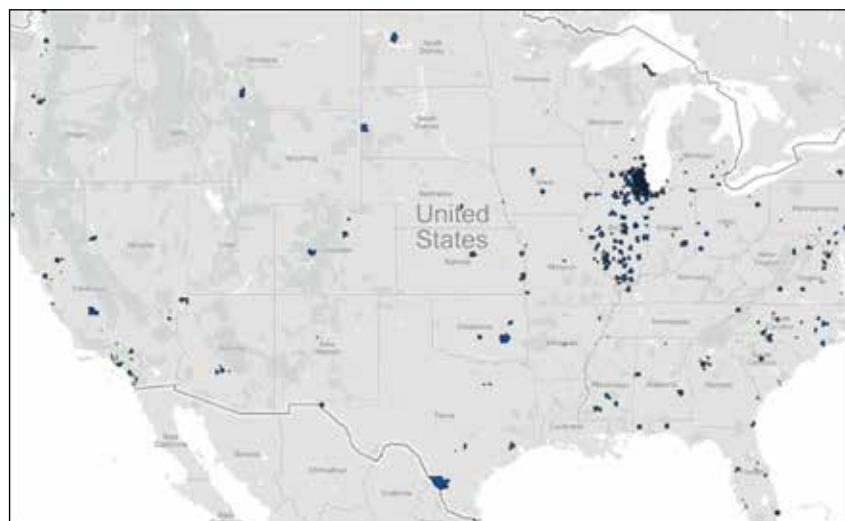


Figure 1

NorthShore is one of only a few hospital systems in the country offering comprehensive services around perinatal mental health, something that has made an obvious and lasting difference to many patients over the years who have offered their gratitude for care that helped them get through their darkest time.

### NorthShore's Perinatal Depression Program

Our pioneering Perinatal Depression Program (PDP) founded in 2003 and its 24/7 hotline remain as unique resources. NorthShore is recognized as a national leader and one of the few institutions offering universal perinatal depression screening and a hotline continuously staffed by professionally trained counselors.

NorthShore established its Perinatal Depression Program in 2003, thanks to a generous gift from Dr. Charles and Joan Mudd in memory of their daughter, Jennifer Mudd Houghtaling. As part of the Department of Obstetrics and Gynecology, the program's mission is to identify and support families at risk for perinatal mood disorders. In addition to the MOMS Line, NorthShore's program offers vital services, such as universal perinatal depression screening, patient access to a mental health provider network and innovative research.

In the last year, more than 8,600 screens were administered to new and expectant mothers in obstetric and pediatric care settings—and of those, 1,285 were at-risk and received mental health outreach and care. Close to 1,900 hotline calls were received (see Figures 1 and 2), and 88 women were sent to the Emergency Department for urgent psychiatric evaluation.

The PDP was one of two hospital systems in the country chosen for the 2020 Mom Project, an initiative from the California Maternal Mental Health Collaborative, which joined the larger National Coalition for Maternal Mental Health in 2015. PDP Director Jo Kim, PhD, was invited to participate in an initial stakeholder meeting to help determine the coalition's mission and priorities. Our program continues to build important regional partnerships (see Figure 3).

Our robust PDP research program brings patients from a broader geographic region to our hospitals to take advantage of the latest treatment options available through advanced investigational protocols and clinical trials.

## NorthShore MOMS Hotline Calls Chicago Area

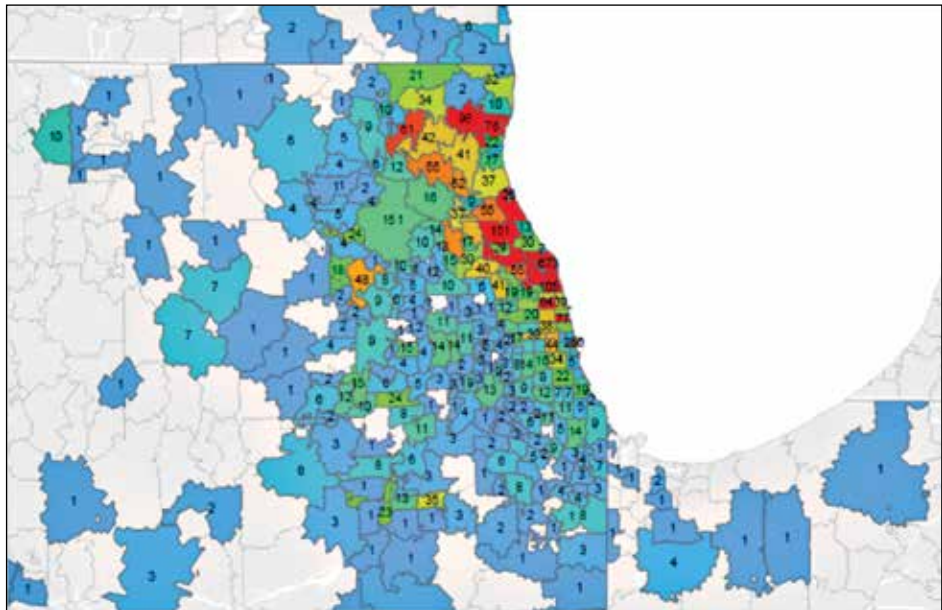


Figure 2

## Perinatal Depression Program

### Engaged Community Mental Health Providers by ZIP Code

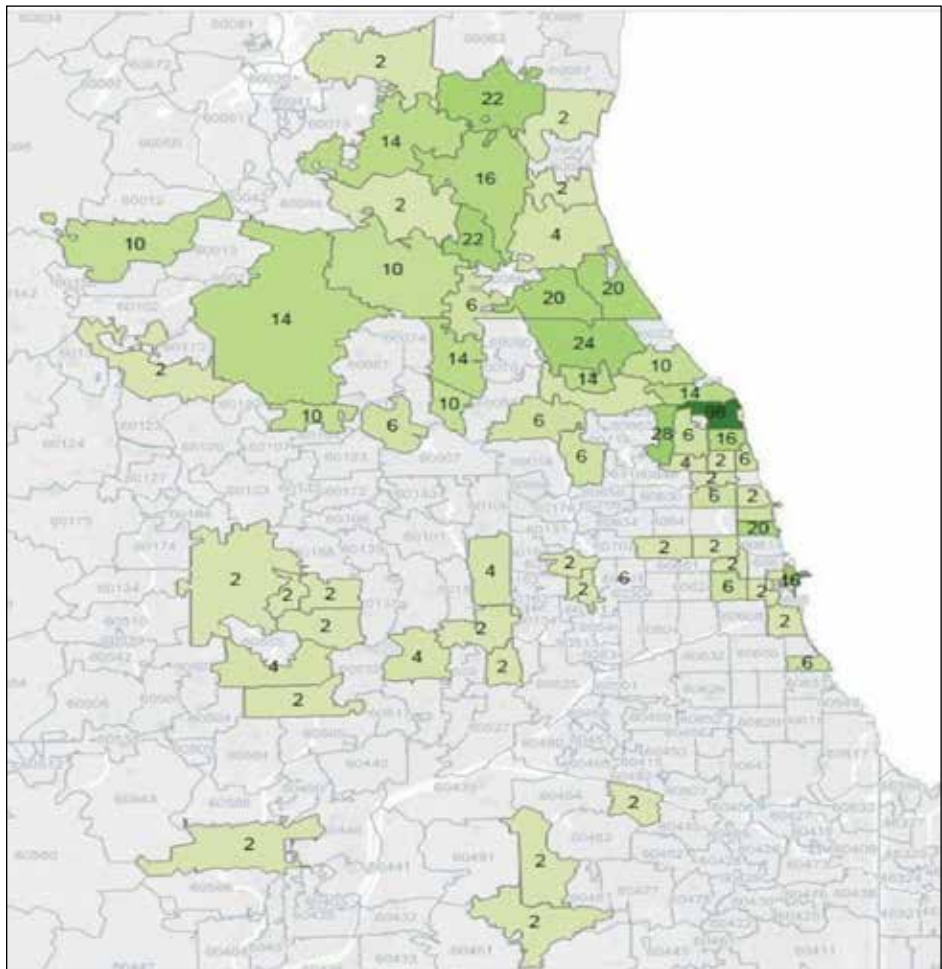


Figure 3

# 2015 Clinical Research Studies

## DIVISION OF GYNECOLOGIC ONCOLOGY

Investigator	Clinical Trial	Sponsor	Investigator	Clinical Trial	Sponsor
Diaz	Pilot Study of the Impact of Early Palliative Care on Quality of Life in Recurrent Ovarian Cancer	NorthShore	Hurteau	GOG-0275: A Phase III Randomized Trial of Pulse Actinomycin-D vs. Multi-Day Methotrexate for the Treatment of Low-Risk Gestational Trophoblastic Neoplasia	NRG Oncology
Diaz	Venous Thrombosis in Patients Receiving Extended Pharmacologic Prophylaxis Following Minimally Invasive Surgery for Endometrial Cancer	NorthShore	Hurteau	GOG-0264: A Randomized Phase II Trial of Paclitaxel and Carboplatin vs. Bleomycin, Etoposide and Cisplatin for Newly Diagnosed Advanced Stage and Recurrent Chemonaive Sex-Cord Stromal Tumors	NRG Oncology
Hurteau	GOG 0210: A Molecular Staging Study of Endometrial Carcinoma	NorthShore	Kim, Josephine	Immortalization of Human Fallopian Tube Epithelial Cells Using Conditional Reprogramming	NorthShore
Hurteau	GOG-0238: A Randomized Trial of Pelvic Irradiation With or Without Concurrent Weekly Cisplatin in Patients with Pelvic-Only Recurrence of Carcinoma of the Uterine Corpus	NorthShore	Rodriguez	A Multi-Institutional Study of Proteomic Evaluation of Epithelial Ovarian Cancer, Primary Peritoneal Cancer and Fallopian Tube Cancer Patients in First Clinical Remission: Development of a Protein Fingerprint Profile of Relapse	NorthShore
Hurteau	GOG-0252: A Phase III Clinical Trial of Bevacizumab with IV vs. IP Chemotherapy in Ovarian, Fallopian Tube and Primary Peritoneal Carcinoma NCI-Supplied Agent(s): Bevacizumab	NorthShore	Rodriguez	GOG-1218: A Phase III Trial of Carboplatin and Paclitaxel Plus Placebo vs. Carboplatin and Paclitaxel Plus Concurrent Bevacizumab (NSC #704865, IND #7921) Followed by Placebo, vs. Carboplatin and Paclitaxel Plus Concurrent and Extended Bevacizumab, in Women with Newly Diagnosed, Previously Untreated, Stage III or IV Epithelial Ovarian, Primary Peritoneal Cancer	NorthShore
Hurteau	GOG 0258: A Randomized Phase III Trial of Cisplatin and Tumor Volume Directed Irradiation Followed by Carboplatin and Paclitaxel vs. Carboplatin and Paclitaxel for Optimally Debulked, Advanced Endometrial Carcinoma	NorthShore	Rodriguez	Development of a Progestin-Based Pharmacologic Approach for the Effective Prevention of Ovarian Cancer	The Auxiliary of NorthShore Cancer
Hurteau	UC10-283; NCI 8348: A Phase I/II Study of Cediranib and Olaparib in Combination for Treatment of Recurrent Platinum-Sensitive Papillary Serous Ovarian, Fallopian Tube or Peritoneal Cancer or for Treatment of Recurrent Triple-Negative Breast Cancer	University of Chicago/ Dana-Farber Cancer Institute/ NIH/NCI	Rodriguez	Mechanisms Underlying the Protective Effect of Progestins Against Ovarian Cancer (R21)	NIH
Hurteau	GOG-0229K: A Phase II Evaluation of BIBF 1120 (IND# 113086) in the Treatment of Recurrent or Persistent Endometrial Carcinoma	NorthShore	Rodriguez	Proteomic Profiling of Primary and Recurrent Ovarian and Endometrial Cancer	The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Hurteau	GOG-0267: Quality of Life and Care Needs in Patients with Persistent or Recurrent Platinum-Resistant Ovarian, Fallopian Tube and Peritoneal Cancer	NorthShore	Rodriguez	Proteomic Profiling of Primary and Metastatic Ovarian and Endometrial Cancers (under contract EH12-150)	The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Hurteau	GOG 0274: A Phase III Trial of Adjuvant Chemotherapy as Primary Treatment for Locally Advanced Cervical Cancer Compared to Chemoradiation Alone: The Outback Trial (ANZGOG 0902/GOG-0274/ RTOG 1174)	NorthShore	Rodriguez	Proteomic Profiling of Racial Disparities in Endometrial Cancer (contract under EH12-150)	The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Hurteau	GOG 273: Chemotherapy Toxicity in Elderly Women with Ovarian, Primary Peritoneal or Fallopian Tube Cancer	Gynecologic Oncology Group (GOG)	Rodriguez	Proteomic and Molecular Profiles Associated with Endometrial Carcinogenesis (contract under EH12-150)	The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Hurteau	GOG 0277: A Phase III Randomized Trial of Gemcitabine (NSC #613327) Plus Docetaxel (NSC #628503) Followed by Doxorubicin (NSC #123127) vs. Observation for Uterus-Limited, High-Grade Uterine Leiomyosarcoma	Gynecologic Oncology Group			
Hurteau	GOG 0286B: A Randomized Phase II/III Study of Palitaxel/Carboplatin/Metformin (NSC#91485) vs. Paclitaxel/Carboplatin/Placebo as Initial Therapy for Measurable Stage III or IVB, or Recurrent Endometrial Cancer	NRG Oncology			
Hurteau	UC13-1323: A Phase II Study of XL184 (Cabozantinib) in Recurrent Metastatic Endometrial Cancer	University of Chicago/ National Cancer Institute (NCI)			

Investigator	Clinical Trial	Sponsor
Rodriguez	Preoperative Prediction of Metastasis, Recurrence and Resistance in Endometrial Cancer Biopsies	The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Rodriguez	A Phase III, Randomised, Double Blind, Placebo-Controlled, Multicentre Study of Olaparib Maintenance Monotherapy in BRCA Mutated Relapsed Ovarian Cancer Patients Who Are in Complete or Partial Response Following Platinum-Based Chemotherapy, D0816C00002	Astra Zeneca
Rodriguez	UC13-1235: A Randomized Placebo-Controlled Phase II Trial of Metformin in Conjunction with Chemotherapy Followed by Metformin Maintenance Therapy in Advanced-Stage Ovarian, Fallopian Tube and Primary Peritoneal Cancer	University of Chicago
Rodriguez	Carboplatin and Dose-Dense Paclitaxel and Treatment Combinations for the Treatment of Advanced and Recurrent Ovarian Cancer	NorthShore
Rodriguez	Evaluation of Metformin and Vitamin D for the Chemoprevention of Endometrial Cancer	NorthShore
Rodriguez	Outpatient Platinum Desensitization Protocol for the Treatment of Gynecologic Malignancies	NorthShore
Rodriguez	NCI 9671: Exceptional Responders Pilot Study: Molecular Profiling of Tumors from Cancer Patients Who Are Exceptional Responders	National Cancer Institute (NCI)
Rodriguez	Evaluation of Metformin and Simvastatin Therapy for Endometrial Cancer Using a Xenograft Mouse Model	NorthShore
Rodriguez	Endoscopic and Karyometric Assessment of Fallopian Tube Health for Ovarian Cancer Prevention	The Univ. of Arizona/DOD

#### DIVISION OF GYNECOLOGICAL PAIN AND MINIMALLY INVASIVE SURGERY

Hellman	Optogenetic Manipulation of Uterine Contractility	NorthShore
Hellman	Novel Approaches to Investigation of Menstrual Pain	NorthShore
Hellman	Neurophysiological Diagnostics for Menstrual Pain (R21)	NIH
Pace	A Prospective Randomized Trial Comparing Outcomes of VVF Repairs with a Postoperative Foley for 7 vs. 14 Days	NorthShore
Senapati	Laparoscopic Suturing Skills in OB/GYN Residents	NorthShore
Senapati	Registry for Gynecological Patients	NorthShore
Senapati	Vasopressin Administration During Laparoscopic Myomectomy: A Randomized Controlled Trial	NorthShore
Tu	Novel Pelvic Floor Pain Measures to Enhance Female Pelvic Pain Evaluation (5K23HD054645-05)	NIH/NICHHD
Tu	Deciphering the Hormonal and Nociceptive Mechanisms Underlying Bladder Pain (1R01DK100368-01)	NIH

Investigator	Clinical Trial	Sponsor
Tu	Multidisciplinary Approach to the Study of Chronic Pelvic Pain (MAPP)—Project II: Validation Study	Northwestern University/NIH/ National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)
Tu	The National Provider Based Vulvodynia Outcomes Registry	The National Vulvodynia Association
Tu	Interstitial Cystitis: Examination of the Central Autonomic Network (R01)	Medical College of Wisc./NIH

#### DIVISION OF MATERNAL-FETAL MEDICINE

Borders	Social Conditions in Pregnancy and Fetal Development	Northwestern University
Borders	Stress and Maternal-Fetal Health During Pregnancy	Northwestern University
Borders	NU Bridge Pilot Study: Assessing Screening and Intervention Feasibility and Acceptability	Northwestern University
Borders	Stress Measurement in Middle/Upper Income Postpartum Women: An Analysis and Refinement of the PRAMS Life Events Questions	University of Illinois—Chicago
Dinsmoor	A Randomized Clinical Trial of Antioxidants to Prevent Preeclampsia (CAPPS)	Northwestern University/ National Inst. of Child Health and Human Development (NICHD)
Dinsmoor	A Randomized Trial of Thyroxine Therapy for Subclinical Hypothyroidism or Hypothyroxinemia Diagnosed During Pregnancy	Northwestern University/ NICHHD
Dinsmoor	Antenatal Late Preterm Steroids (ALPS): A Randomized Placebo-Controlled Trial	NCI/NIH
Dinsmoor	A Randomized Trial of Fetal ECG ST Segment and T Wave Analysis as an Adjunct to I Electronic Fetal Heart Rate Monitoring (STAN)	National Heart, Lung, and Blood Institute (NHLBI)
Dinsmoor	Study of a Prenatal Diagnostic Test for Fetal Aneuploidy, Protocol TT-001	Tandem Diagnostics Inc.
Dinsmoor	Translating Research Into Practice in Obstetrics (TRIO) (part of Maternal Fetal Medicine Units Network)	Northwestern University/ NIH/NICHHD
Dinsmoor	A Randomized Trial to Prevent Congenital Cytomegalovirus Infection (CMV)	Northwestern University/NIH

*continued>*

**DIVISION OF MATERNAL-FETAL MEDICINE** *continued*

Investigator	Clinical Trial	Sponsor
Dinsmoor	Non-Invasive Chromosomal Examination of Trisomy Study (NEXT Study)	Aria Diagnostics/ Maternal Fetal Medicine Foundation
Dinsmoor	An Observational Study of Hepatitis C Virus in Pregnancy	Northwestern University/NIH
Dinsmoor	Induction in Nulliparous Women at 39 Weeks to Prevent Adverse Outcomes: A Randomized Controlled Trial. A Randomized Trial of Induction vs. Expectant Management (ARRIVE) (part of Maternal Fetal Network )	NICHD
Dinsmoor	Obstetric Research Registry	NorthShore
Grable	High-Fidelity Ultrasound Simulation and Improvement in Learners' Performance	NorthShore
McCarthy	Urinary and Breast Milk Iodine Concentrations of U.S. Lactating Women	NorthShore
McCarthy	The Association Between Antihypertensive Therapy and Peripartum Depression	NorthShore
Ouyang	Sleep-Disordered Breathing During Pregnancy: Relationship with Preeclampsia, A Cohort Study	Northwestern University/ Preeclampsia Foundation
Ouyang	Adverse Perinatal Outcomes in Dichorionic vs. Trichorionic Triplets	NorthShore
Plunkett	Dietary and Behavioral Intervention to Reduce Weight Gain in Obese Pregnant Women	NorthShore Research Inst./ Medical Group Pilot Grant Program
Plunkett	Obesity Is Under-Diagnosed and Under-Treated among Reproductive Age Women	NorthShore
Plunkett	Exploration of Barriers Facing Physicians in Diagnosing and Treating Obesity	NorthShore
Silver	Population-Based Preconception Care: An Electronic Health Record Paradigm to Improve Pregnancy Outcomes	NorthShore
Stephens	Prevalence of CMV Infection in Placentas of Small for Gestational Age (SGA) Neonates	NorthShore
Stephens	Evaluation of Perinatal Drug Screening at NorthShore	NorthShore

**DIVISION OF OBSTETRICS**

Hirsch	The Molecular Pathogenesis of Health Disparities in Infection-Induced Preterm Birth (R01HD041689)	NIH
Hirsch	Effect of Early Purposeful Rotation of Fetal Occiput Posterior Presentation on Delivery Outcomes— A Prospective Randomized Controlled Trial	NorthShore
Hirsch	The Role of Membrane Progesterone Receptors in Primary Myometrial Cells	NorthShore
Hirsch	A Role for SP-A in the Prevention of Preterm Labor	Satter Foundation
Hirsch	Autophagy in the Genesis and Prevention of Labor	March of Dimes

**DIVISION OF UROGYNECOLOGY AND RECONSTRUCTIVE SURGERY**

Investigator	Clinical Trial	Sponsor
Botros-Brey	Needs Assessment of OB/GYN Fellowship Program Directors: Version #1, September 2014	NorthShore
Botros-Brey	Which Bladder Installations Are More Effective? DMSO vs. Marcaine/Kenalog/Heparin: A Retrospective Review	NorthShore
Botros-Brey	The Role of the Integration of Tissue Components in Pelvic Floor Tissue Biomechanics Associated with Pelvic Organ Prolapse	Univ. of Chicago— Institute for Translational Medicine/ NorthShore Research Institute Special Pilot Grant Program
Gafni-Kane	Bladder Capacity as an Objective Measure of Response to Intravesical Treatment of Newly Diagnosed Interstitial Cystitis: A Prospective, Randomized Trial	NorthShore
Gafni-Kane	Bladder Perfusion and Abdomino-Pelvic Muscle Activity as a Source of Pain in Interstitial Cystitis/ Bladder Pain Syndrome: A Pilot Study	NorthShore
Goldberg	Incontinence and Pelvic Floor Dysfunction: The Evanston-Northwestern Twins Study	NorthShore
Sand	Anterior Colporrhaphy With and Without Concomitant ARCUS Tendineus Graft Placement for the Repair of Advance Anterior Vaginal Wall Prolapse	Boston Scientific
Sand	Post-Operative Pain, and Perceptions of Recuperation, After Suture-Based vs. Mesh-Based Sacrospinous Suspension	Boston Scientific
Sand	A Double-Blind, Randomized, Controlled Trial Comparing the Safety and Efficacy of AMDC-USR with Placebo in Female Subjects with Stress Urinary Incontinence, Clinical Investigation Plan No. 13-003	Cook MyoSite, Inc.
Seitz	Time to First Bowel Movement Following Pelvic Reconstructive Surgery: A Randomized Controlled Trial	NorthShore
Tran	Practice Patterns of a Urogynecology Division in the Treatment of Overactive Bladder	NorthShore
Tran	Persistence and Patient Satisfaction with Pharmacotherapy Treatment for Overactive Bladder	NorthShore
Tran	A Fidelity Measure for Pelvic Floor Physical Therapy in Female Pelvic Pain: A Validation Study	NorthShore

**PERINATAL DEPRESSION PROGRAM**

Kim	Implications of Perinatal Depression Screen Administration	NorthShore
La Porte	Perinatal Depression Hotline Database	NorthShore
Silver	Pilot Study of Computer Adaptive Technology for Perinatal Mood Disorder Screening During and After Pregnancy	NorthShore



## MEDICAL EDUCATION

# Undergraduate Medical Education



**H. Jacob Saleh, MD**

*Site Director and Clinical Associate Professor*



**Michael Hughey, MD**

*Associate Site Director and Senior Clinician Educator*

### Overview

In collaboration with the University of Chicago Pritzker School of Medicine, NorthShore faculty continues its commitment to ongoing excellence in undergraduate medical education. Students complete learning objectives in healthcare for women in an atmosphere of discovery and clinical excellence.

In addition to the core third-year rotation, fourth-year students are offered unique month-long electives in general and high-risk obstetrics. Electives are expanding to include subspecialty experience in Urogynecology, Gynecologic Oncology, Fertility and Pelvic

Pain. Increasing numbers of senior students with a strong interest in postgraduate training from medical schools across the United States was realized as a goal in 2015.

### 2015 Highlights and Achievements

- Loren Hutter, MD, and Sigal Klipstein, MD, were recipients of the Holden K. Farrar, Jr. MD Teacher of the Year Award and Lecturer of the Year Award, respectively.
- Michael Hughey, MD, Associate Site Director for Undergraduate Medical Education, has continued to develop excellent learning and testing opportunities at the Grainger Center for Simulation and Innovation (GCSI) at NorthShore. In addition to relevant skills labs, the centerpiece at GCSI is the Objective Structured Clinical Examination, a final exam given to all third-year students that evaluates their ability to apply learned concepts in the clinical environment.
- Continuous improvement is the guiding principle in the evolution of the NorthShore rotation with the goal of optimizing the learner experience and meeting all educational objectives. In response to student feedback, data collected over the past academic year has concentrated efforts in the areas of faculty development, mentor program expansion and didactic lecture schedule improvements. With continued emphasis on hands-on training, a full day of ultrasound education allows students to participate in an ongoing research project led by NorthShore faculty to determine the effectiveness of their training in this discipline.

# Graduate Medical Education



**Beth Plunkett, MD, MPH**

*Site Director and Clinical Associate Professor*



**Sangeeta Senapati, MD, MS**

*Associate Site Director and Clinical Assistant Professor*

### Overview

In collaboration with the NorthShore faculty, all 28 of the University of Chicago Pritzker School of Medicine OB-GYN residents benefit from learning opportunities at NorthShore over their four-year training program. Under the leadership of Anita Blanchard, MD, Obstetrics and Gynecology Residency Director at the University of Chicago Pritzker School of Medicine, NorthShore and Pritzker complement the breadth and depth of graduate medical education at both campuses. NorthShore also hosts residents from

Saint Francis Hospital's Obstetrics and Gynecology residency training program, which allows for one resident to participate in our Labor and Delivery team throughout the academic year. The University of Chicago residents' obstetrics and gynecology outpatient clinic training is based at the NorthShore Community Health Center. This experience gives the residents the opportunity to learn outpatient management within the context of a collaborative "group practice."

### 2015 Highlights and Achievements

- Our OB-GYN faculty are renowned for their remarkable teaching abilities. NorthShore physician Linda Holt, MD, was recognized by the Obstetrics and Gynecology residents for her talent and dedication to graduate medical education as the recipient of the Golden Apple Award in 2015.
- The residents received several important accolades this year. John Byrne, MD (Class of 2017) was recognized campus-wide by the students of the Pritzker School of Medicine for his superlative teaching. He was awarded the Arnold P. Gold Foundation Humanism and Excellence in Teaching Award. Several residents were recognized by the medical students as outstanding teachers during their clerkships. They include Sarah Wilkinson, MD (Class of 2015), Benjamin Brown, MD (Class of 2016), John Byrne, MD, and Julia Fehniger, MD (Class of 2017) and Robert Scholz, MD (Class of 2018).

*continued >*

## Graduate Medical Education (continued)

- The Obstetrics and Gynecology residents had outstanding faculty-mentored research accomplishments that were presented at many national meetings. Ben Brown, MD, under the mentorship of Amy Whitaker, MD, presented his work on the shared negative experiences with long-acting reversible contraceptives and their impact on contraception counseling at the North American Forum on Family Planning. Julia Fehniger, MD, mentored by Diane Yamada, MD, presented a study to evaluate diffusion-weighted MRI imaging in the detection of peritoneal carcinomatosis in suspected gynecologic malignancy at the Western Association of Gynecologic Oncologists meeting where she also presented a paper suggesting that subsequent chemotherapy is well tolerated in patients who underwent primary adjuvant intraperitoneal chemotherapy for ovarian, fallopian and primary peritoneal cancers. Lopa Pandya, MD, mentored by Sarah Collins, MD, reviewed the outcomes of urogynecologic evaluations of women referred for rectocele on dynamic proctography at the American Urogynecologic Society Annual Meeting. Kate Mills, MD, under the mentorship of Nita Lee, MD, presented her work on promoting community-based lifestyle modification and weight management in African-American endometrial cancer survivors and their female social network at the Society of Gynecologic Oncologists Annual Meeting. She also presented a paper on advancing metformin as a metabolic therapeutic for ovarian cancer, mentored by Iris Romero, MD. John Byrne, MD, under the mentorship of Julie Chor, MD, published his work on the Evaluation of Ethics Education in Obstetrics and Gynecology Residency Programs in the *American Journal of Obstetrics and Gynecology*. This work was awarded the Dr. Kermit E. Krantz Memorial Paper Award at the Central Association of Obstetrics and Gynecology meeting. Dr. Byrne also presented his research, under the mentorship of Mara Dinsmoor, MD, MPH, on the prevalence of cytomegalovirus infection in placentas of unexplained small for gestational age neonates at the Infectious Disease Society of Obstetrics and Gynecology. Anne Schufreider, MD, under the mentorship of Eve Feinberg, MD, had her research on ovarian reserve in infertility patients with fragile X gene published in *Human Reproduction*. The resident research projects over this past academic year are representative of the depth and breadth of research both at NorthShore and the University of Chicago and the combined faculty commitment to mentor learners in their academic endeavors.
- Ian Grable, MD, MPH, Clinical Assistant Professor in Maternal-Fetal Medicine, and his colleagues continued to provide cutting-edge educational opportunities for the residents through his use of simulation technology in the state-of-the-art Grainger Center for Simulation and Innovation (GCSI) at NorthShore. His educational program provided intensive training for the residents in such areas as complex deliveries, procedural skills, team building, obstetric emergencies, and patient counseling and management of medically complex situations. Similarly, Sangeeta Senapati, MD, MS, and colleagues provided the residents with high-impact gynecologic training at the GCSI with a focus on advanced minimally invasive surgical skills and techniques in the safety of the simulated learning environment.

## MEDICAL EDUCATION

### Fellowship Programs



**Jean Hurteau, MD**

*Associate Program Director and Clinical Professor*

### Gynecologic Oncology

#### Overview

The Division of Gynecologic Oncology partners in an approved, integrated fellowship training program directed by S. Diane Yamada, MD, at the University of Chicago and certified by the American Board of Obstetrics and Gynecology. The program consists of one basic science research year and two clinical years divided between the two campuses. The clinical experience includes management of preinvasive and complex invasive cancers of the gynecological tract under the supervision of nine attending physicians, with both surgical and medical oncology as central components of the curriculum.

#### 2015 Highlights and Achievements

Collectively, our fellows had five oral presentations and four poster presentations at national meetings in 2015. Also included in this academic productivity are five manuscript publications in prestigious journals including the journal *Nature*.

- Annie Jewell, MD, was the third fellow to complete the Gynecologic Oncology Fellowship. Dr. Jewell accepted a position as assistant professor at the University of Kansas.
- Terri Febbraro, MD, began her last year of the Gynecologic Oncology Fellowship Program. Dr. Febbraro completed her residency at Brown University and her medical degree at Albert Einstein College of Medicine of Yeshiva University.
- Josephine Kim, MD, began the first clinical year of the fellowship after completing the laboratory year. Dr. Kim received her medical degree at the University of Chicago and completed her residency at the University of California-San Diego.
- Jerlinda Ross, MD, is our newest fellow having completed a residency at Indiana University School of Medicine. Dr. Ross received her medical degree from Duke University and is currently in her laboratory year.

### Department of Obstetrics and Gynecology 2015 Fellows

Carolyn Botros, DO  
*Urogynecology*

Terri Febbraro, MD  
*Gynecologic Oncology*

Shilpa Iyer, MD  
*Urogynecology*

Josephine Kim, MD  
*Gynecologic Oncology*

Alicia McCarthy, MD, PhD  
*Maternal-Fetal Medicine*

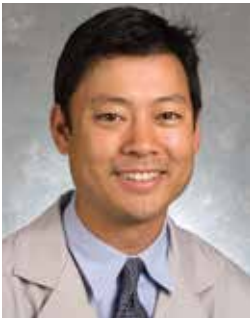
Jerlinda Ross, MD  
*Gynecologic Oncology*

Patrick Schneider, MD  
*Maternal-Fetal Medicine*

Amanda Stephens, MD  
*Maternal-Fetal Medicine*

Alexis Tran, DO  
*Urogynecology*

Edom Yared, MD  
*Maternal-Fetal Medicine*



**David Ouyang, MD**  
*Program Director and Clinical Assistant Professor*



**Sylvia Botros, MD, MSCI**  
*Program Director and Clinical Assistant Professor*

## Maternal-Fetal Medicine

### Overview

The integrated NorthShore and University of Chicago Maternal-Fetal Medicine (MFM) fellowship has fully developed the training experience in the care of women with high-risk pregnancies for all three of its fellows. Their learning experience includes diagnosis, treatment and management of medical, surgical and obstetrical complications of pregnancy. Additionally, they develop proficiency and expertise in ultrasound and antenatal diagnosis, including procedural skills such as amniocentesis and chorionic villus sampling. Finally, fellows establish a foundation for scientific inquiry that forms the basis for their engagement in clinical and/or basic science research activity with faculty mentorship.

### 2015 Highlights and Achievements

- Our MFM fellows have had significant scholarly productivity. Collectively, in the past two academic years, they presented their research 20 times at national meetings and had 15 publications in leading journals in the specialty.
- Our MFM fellows are currently engaged in numerous research projects with eight active Institutional Review Board studies.
- Edom Yared, MD, is completing her thesis titled “Effect of body mass index on perinatal outcomes in an urban population” under the mentorship of Sarosh Rana, MD, section chief of Maternal-Fetal Medicine at the University of Chicago.
- Alicia McCarthy, MD, PhD, is completing her thesis titled “Association between antihypertensive therapy and postpartum depression” under the mentorship of Beth Plunkett, MD, MPH faculty member of the NorthShore MFM Division.
- Amanda Stephens, MD, was accepted into the Master of Science in Health Studies graduate program at the University of Chicago’s Department of Health Studies. This program offers a course of study in the theory, methods and concepts of biostatistics, epidemiology and health services research needed to design and carry out clinical and epidemiologic research programs.
- Patrick Schneider, MD, recently began his first year of fellowship after completing his residency at Northwestern University. He was selected to be a fellow in the NorthShore Quality and Patient Safety Fellowship Program with Division member Ann Borders, MD, MSc, MPH, acting as his practicum mentor. This fellowship aims to develop clinical leaders in quality and patient safety through innovation in the delivery of clinical care to improve the quality of healthcare locally, regionally and nationally.

## Female Pelvic Medicine and Reconstructive Surgery (formerly known as Urogynecology)

### Overview

The NorthShore Division of Female Pelvic Medicine and Reconstructive Surgery (FPMRS) supports the advanced training for three fellowship positions certified by the Accreditation Council for Graduate Medical Education (ACGME). The program continues to successfully integrate clinical rotations at the University of Chicago.

### 2015 Highlights and Achievements

- Recently graduated fellow, Miriam Seitz, MD, has passed her FPMRS written board examination and joined a hospital group in Honolulu, Hawaii, with her husband, daughter and newborn son. She is starting a urogynecology clinic to help the underserved of Honolulu and plans to continue with mission work beyond Honolulu.
- Kelly Jirschele, DO, passed her FPMRS written board examination, has graduated and has joined a well-regarded FPMRS group in the western suburbs of Chicago.
- Alexis Tran, DO, our third-year fellow, continues to work on her research evaluating persistence of patients on overactive bladder medications, resulting in several presentations at national and international scientific meetings. She has another innovative, multidisciplinary research project which is now enrolling study subjects involving the Gynecological Pain and Minimally Invasive Surgery Division and Physical Medicine and Rehabilitation.
- Shilpa Iyer, MD, MPH, is our second-year fellow and, in addition to her busy clinic schedule and her multiple research projects, she is our first fellow to learn via a new laparoscopic curriculum jointly developed by Sangeeta Senapati, MD, MS, and Sarah Collins, MD, FPMRS, University of Chicago.
- Carolyn Botros, DO, is our new first-year fellow. She completed her residency at Atlantic Health System in New Jersey. She is immersed in three research projects in her short time here. We welcome her.
- The FPMRS Fellowship Program was selected as one of the sites in a multicenter research trial piloting a Web-based formative assessment tool for residents known as MyTIPreport.

- Agrawal, V**, Jaiswal, MK, Mallers, T, Gilman-Sachs, A, Beaman, KD, **Hirsch, E**. (2015) Altered autophagic flux enhances inflammatory responses during inflammation-induced preterm labor. *Scientific Reports* 5:9410.
- Agrawal, V**, Jaiswal, MK, Pamarthy, S, Katara, GK, Kulshrestha, A, Gilman-Sachs, A, **Hirsch, E**, Beaman, KD. (2015) Role of Notch signaling during lipopolysaccharide-induced preterm labor. *Journal of Leukocyte Biology* Sept 15. [Epub ahead of print]
- Bello, JK, Bauer, V, **Plunkett, BA**, Poston, L, Solomonides, A, **Endres, L**. (2015) Pregnancy weight gain, postpartum weight retention, and obesity. *Current Cardiovascular Risk Reports* (In press).
- Blanco, I, Kuchenbaecker, K, Cuadras, D, Wang, X, **Rodriguez, GC**, et al. (2015) Assessing associations between AURKA-HMMR-TPX2-TUBG1 functional module and breast cancer risk in BRCA1/2 mutation carriers. *PLoS One* 1;10(4):e0120020.
- Borders, AEB**, Wolfe, K, **Qadir, S**, Kim, K-Y, Holl, J, Grobman, W. (2015) Racial/ethnic differences in self-reported and biologic measures of chronic stress in pregnancy. *Journal of Perinatology* 35;580-84.
- Chelimsky, TC, Janata, J, As-Sanie, S, **Tu, FF**, Zolnoun, D. (2015) Chronic pelvic pain. *Hayek, Shah, Desai, and Chelimsky's Pain Medicine: An Interdisciplinary Case-Based Approach*, New York, NY. Oxford University Press, 297-302.
- Colicchia, LC, Lauderdale, DS, Du, H, **Adams, M, Hirsch, E**. (2015) Recurrence of group B streptococcus colonization in successive pregnancies. *Journal of Perinatology* 35(3):173-6.
- Coulam, C**. (2015). Association between immunologic causes and superfertility among women experiencing recurrent pregnancy loss. *American Journal of Reproductive Immunology* 73:i-viii.
- Endres, L, Straub, H**, McKinney, C, **Plunkett, P**, Minkovitz, C, Schetter, CD, Ramey, S, Wang, C, Hobel, C, Raju, T, Shalowitz, MU, Community Child Health Network of the Eunice Kennedy Shriver National Institute of Child Health and Human Development. (2015) Postpartum weight retention: Risk factors and relationship to obesity at one year. *Obstetrics and Gynecology* Jan;125(1):144-52.
- Febbraro, T**, Lengyel, E, Romero, IL. (2014) Old drug, new trick: Repurposing metformin for gynecologic cancers? *Gynecologic Oncology* 135(3):614-21.
- Febbraro, T**, Robison, K, Wilbur, JS, Laprise, J, Bregar, A, Lopes, V, Legare, R, Stuckey, A. (2015) Adherence patterns to National Comprehensive Cancer Network (NCCN) guidelines for referral to cancer genetic professionals. *Gynecologic Oncology* 138(1):109-14.
- Feinberg, EC**. (2015) Expanding the scope of the basic infertility workup. *Fertility and Sterility* Oct 9. [Epub ahead of print]
- Filipovich, Y, Agrawal, V**, Crawford, SE, Fitchev, P, Qu, X, Klein, J, **Hirsch, E**. (2015) Depletion of polymorphonuclear leukocytes has no effect on preterm delivery in a mouse model of Escherichia coli-induced labor. *American Journal of Obstetrics and Gynecology* 213(5):697.
- Filipovich, Y**, Klein, J, Zhou, Y, **Hirsch, E**. (2015) Maternal and fetal roles in bacterially-induced preterm labor in the mouse. *American Journal of Obstetrics and Gynecology* Oct 15. [Epub ahead of print]
- Gafni-Kane, A**, Zhou, Y, **Botros, SM**. (2015) Predictive modeling and threshold scores for care seeking among women with urinary incontinence: The short forms of the Pelvic Floor Distress Inventory and Urogenital Distress Inventory. *Neurourology and Urodynamics* July 24 [Epub ahead of print]
- Glasspool, RM, Gonzalez, MA, Lorusso, D, Avall-Lundqvist, E, **Hurteau, JA**, Davis, A, Hilpert, F, Kim, JW, Alexandre, J, Ledermann, JA. (2014) Gynecologic Cancer Intergroup (GCIg) consensus review for squamous cell carcinoma of the ovary. *International Journal of Gynecological Cancer* 24(9 Suppl3):S26-9.
- Goodman, C, Bustillo, M, Port, A, **Coulam, C**. (2015) Age-related serum anti-Müllerian hormone concentrations among infertile vs. fertile women. *Journal of Advances in Medical and Pharmaceutical Sciences* 2(2):70-74.
- Goodman, C, **Coulam, C**. (2015) Prevalence of immune risk factors in women experiencing recurrent pregnancy loss and frequency of normal karyotypes among their abortuses. *Reproductive Sciences* 22(1 suppl):214.
- Hellman, KM**, Patarwala, IY, Pozolo, KE, **Tu, FF**. (2015) Multimodal nociceptive mechanisms underlying chronic pelvic pain. *American Journal of Obstetrics and Gynecology* Aug 20. [Epub ahead of print]
- Hunn, J**, Tenney, ME, Tergas, AI, Bishop, EA, Moore, K, Watkin, W, **Kirschner, C, Hurteau, J, Rodriguez, GC**, Lengyel, E, Lee, K, Yamada, SD. (2015) Patterns and utility of routine surveillance in high-grade endometrial cancer. *Gynecologic Oncology* 137(3):485-9.
- Hurteau, JA, Febbraro, T**. (2015) Germ cell tumors: Treatment consensus across all age groups through MaGIC (Malignant Germ Cell International Collaborative). *Cancer* Oct 20. [Epub ahead of print]
- Jaiswal, MK, **Agrawal, V**, Pamarthy, S, Katara, GK, Kulshrestha, A, Gilman-Sachs, A, Beaman, KD, **Hirsch, E**. (2015) Notch signaling in inflammation-induced preterm labor. *Scientific Reports* 5:15221.
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- Kim, J, La Porte, L, Saleh, M, Allweiss, S, Adams, M**, Zhou, Y, **Silver, R**. (2015) Suicide risk among perinatal women who report thoughts of self-harm on depression screens. *Obstetrics and Gynecology* 125(4):885-93.
- Kim, JS**, Ward, KK, Shah, NR, Saenz, CC, McHale, MT, Plaxe, SC. (2015) Effects of obesity and hysterectomy approach of the surgical management of uterine malignancy. *American Journal of Clinical and Experimental Obstetrics and Gynecology* 2(3):96-101.
- Kirschner, CV**, Lengmang, SJ, Zhou, Y, Chima, GA, Karshima, JA, Arrowsmith, S. (2015) Urinary diversion for patients with inoperable obstetric vesicovaginal fistula: The Jos, Nigeria experience. *International Urogynecology Journal* Nov 2. [Epub ahead of print]
- Kuchenbaecker, KB, Neuhausen, SL, Robson, M, Barrowdale, D, **Rodriguez, GC**, et al. (2014) Associations of common breast cancer susceptibility alleles with risk of breast cancer subtypes in BRCA1 and BRCA2 mutation carriers. *Breast Cancer Research* 16(6):3416.

- Kuchenbaecker, KB, Ramus, SJ, Tyrer, J, Lee, A, **Rodriguez, GC**, **Hurteau, JA**, Consortium of Investigators of Modifiers of BRCA1 and BRCA2. (2015) Identification of six new susceptibility loci for invasive epithelial ovarian cancer. *Nature Genetics* 47(2):164-71.
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- Lu, J, Reese, J, Zhou, Y, **Hirsch, E**. (2015) Progesterone-induced activation of membrane-bound progesterone receptors in murine macrophage cells. *Journal of Endocrinology* 224(2):183-94.
- McCarthy, AM, MacGregor, S**. (2015) Strip of the Month. *NeoReviews* 16:e129-e137.
- McQueen, DB, **Schufrieder, A**, Lee, SM, **Feinberg, EC**, Uhler, ML. (2015) Racial disparities in in-vitro fertilization outcomes. *Fertility and Sterility* Aug;104(2):398-402.
- Mueller, JJ, Holzapfel, M, Han, CH, Santos, K, Gunderson, C, Moore, K, Erickson, B, Leath, CA III, **Diaz, ES**, Walsh, C, Wethington, SL, Dejbakhsh, SZ, Barakat, RR, Gardner, GJ, Hyman, DM, Soslow, RA, Leitao, MM Jr. (2015) Staging lymphadenectomy in patients with clear cell carcinoma of the ovary. *International Journal of Gynecological Cancer*. 5 Oct 26. [Epub ahead of print]
- Nayak, SR**, Harrington, E, Boone, D, Hartmaier, R, Chen, J, Pathiraja, TN, Cooper, KL, Fine, JL, Sanfilippo, J, Davidson, NE, Lee, AV, Dabbs, D, Oesterreich, S. (2015) A role for histone H2B variants in endocrine-resistant breast cancer. *Hormones and Cancer* 6(5-6):214-24.
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- Olson, TA, Murray, MJ, Rodriguez-Galindo, C, Nicholson, JC, Billmire, DF, Krailo, MD, Dang, HM, **Hurteau, J**, et al. (2015). Pediatric and adolescent extracranial germ cell tumors: The road to collaboration. *Journal of Clinical Oncology* 33(27):3018-28.
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- Ovarian Cancer Association Consortium, Breast Cancer Association Consortium, and Consortium of Modifiers of BRCA1 and BRCA2, **Rodriguez, GC**, et al. (2015) No clinical utility of KRAS variant rs61764370 for ovarian or breast cancer. *Gynecological Oncology* May 2. [Epub ahead of print]
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- Peterlongo, P, Chang-Claude, J, Moysich, KB, Rudolph, A, **Rodriguez, GC**, et al. Candidate genetic modifiers for breast and ovarian cancer risk in BRCA1 and BRCA2 mutation carriers. *Cancer Epidemiology, Biomarkers and Prevention* 24(1):308-16.
- Peterson, CE, Rauscher, GH, Johnson, TP, **Kirschner, CV**, Freels, S, Barrett, RE, Kim, S, Fitzgibbon, ML, Joslin, CE, Davis, FG. (2015) The effect of neighborhood disadvantage on the racial disparity in ovarian cancer-specific survival in a large hospital-based study in Cook County, Illinois. *Frontiers in Public Health* 3:8.
- Plunkett, B**. (2015) Delayed hospital admission until active labour may help prevent unnecessary caesarean delivery. *Evidence-Based Medicine* Sept 29. [Epub ahead of print]
- Rebbeck, TR, Mitra, N, Wan, F, **Rodriguez, G**. (2015) Association of type and location of BRCA1 and BRCA2 mutations with risk of breast and ovarian cancer. *JAMA* 7;313(13):1347-61.
- Rodgers, A**. (2015) Nausea and vomiting in pregnancy. Wisconsin Department of Health, Medicaid Review Council.
- Rossi, R** and **Robinson, BK**. (2015) Strip of the Month. *NeoReviews* 16(11):e657-e663.
- Schufrieder, A**, McQueen, DB, Lee, SM, Allon, R, Uhler, ML, Davie, J, Feinberg, EC. (2015) Diminished ovarian reserve is not observed in infertility patients with high normal CGG repeats on the fragile X mental retardation 1 (FMR1) gene. *Human Reproduction* 30(11):2686-92.
- Seitz, M, Tran, AM, Iyer, S, Jirchale, K**, Zhou, Y, Shalowitz, M, **Gafni-Kane, A, Tomezsko, J, Botros, S, Sand, P, Goldberg, RP**. (2015) Hysteropexy: Who's Doing It? *Female Pelvic Medicine & Reconstructive Surgery* 21:5.
- Senapati, S, Tu, FF**, Magrina, JF. (2015) Power morcellators: A review of current practice and assessment of risk. *American Journal of Obstetrics and Gynecology* 212(1):18-23.
- Stephens, A**, Karvas, R, Schulz, L, Schust, D. (2014) Modeling preeclampsia: An emerging role for stem cells. *NeoReviews* 15(12):e526-536.
- Stephens, A** and **Ouyang, DW**. (2015) Strip of the Month. *NeoReviews* 16(5):e1-6.
- Tien, S** and Yamamura, Y. (2015) Cervical ectopic pregnancy: Persistence despite a serologically negative  $\beta$ -hCG. *Journal of Reproductive Medicine* 60(5):257-60.
- Tran, A, Sand, P, Tomezsko, J**, Zhou, Z, **Seitz, M, Gafni-Kane, A, Botros, S**. (2015) A retrospective comparison of persistence on pharmacotherapy for overactive bladder syndrome amongst specialties. *Neurology and Urodynamics* 34(S1):S92.2.
- Tucker-Edmonds, BT, McKenzie, F, **Robinson, BK**. (2015) Maternal-fetal medicine physicians' practice patterns for management of the 22-week delivery management. *Journal of Maternal-Fetal and Neonatal Medicine* 2015; Sep 2:1-5. [Epub ahead of print]
- Wymer, K, **Plunkett, BA**, Park, S. (2015) Urolithiasis in pregnancy: A cost-effectiveness analysis of ureteroscopic management vs. ureteral stenting. *American Journal of Obstetrics and Gynecology* 213(5):691.e1-8.
- Young, CM, **Schneider, P**, Nelson, L, Julien, S. (2015) Outcomes of expectant management after betamethasone for hypertensive disorders of pregnancy. *Hypertension in Pregnancy* 34(1):50-64.

## 2015 Presentations and Abstracts

**Agrawal, V**, Jaiswal, MK, Parmarthy, S, Beaman, KD, **Hirsch, E**. (2015) Notch signaling is activated in inflammation-induced pre-term labor, and its inhibition reduces the pro-inflammatory response. Society for Reproductive Investigation 62nd Annual Scientific Meeting, San Francisco, CA.

Anderson, RE, Nagy, ZP, **Feinberg, EC**, Hayward, B, Mahony, MC. (2015) The Human Oocyte Preservation Experience (HOPE) Registry: Outcomes of vitrification vs. slow-freezing of donor oocytes following ART, Poster Presentations, Pacific Coast Reproductive Society 63rd Annual Meeting, Rancho Mirage, CA.

**Atashroo, D**. (2015) Guidelines and related recommendations for osteoporosis screening. NorthShore University HealthSystem, Glenbrook Hospital, Continuing Professional Development, Glenview, IL.

**Atashroo, D, Senapati, S, Tu, F**. (2015) A model for resection of endometriosis: A feasibility study. American Association of Gynecologic Laparoscopists 44th Global Congress on Minimally Invasive Gynecology, Las Vegas, NV.

Balachandran, J, Schacht, D, **Senapati, S**, Stewart, N. (2014) Development and pilot implementation of interprofessional training, education and awareness for medical students. University of Chicago Medical Education Day, Chicago, IL.

**Borders, A**. (2014) Illinois Perinatal Quality Collaborative Overview, CDC State-Based Perinatal Quality Collaboratives Kickoff Meeting, Atlanta, GA.

**Borders, A**. (2014) Measurement of maternal stress in pregnancy. Northwestern University, Institute for Policy Research, Chicago, IL.

**Borders, A**. (2015) Reducing non-medically indicated (elective) deliveries before 39 weeks gestational age. Centegra Northern Illinois Medical Center Grand Rounds, McHenry, IL.

**Borders, A**. (2015) Starting a breastfeeding peer counselor program. John H. Stroger, Jr. Hospital of Cook County, Chicago Breastfeeding Coalition Meeting, Chicago, IL.

**Borders, A**. (2015) Starting a Perinatal Quality Collaborative: Illinois Perinatal Quality Collaborative. Society for Maternal-Fetal Medicine 35th Annual Meeting, Putting the M back into Maternal Fetal Medicine Pre-Conference Meeting, San Diego, CA.

**Borders, A**, Culhane, J, Simhan, H, Wadhwa, P, Williamson, D, Kim, KY, Mroczek, D, Grobman, W. (2015) Maternal psychosocial stress and immune/inflammatory markers in pregnancy. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.

**Borders, A**, Culhane, J, Simhan, H, Wadhwa, P, Williamson, D, Kim, KY, Mroczek, D, Grobman, W. (2015) Racial/ethnic differences in maternal self-report and biomarkers of stress and stress biology in pregnancy. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.

**Botros, SM**. (2015) Neuromodulation and pelvic floor electrical stimulation. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.

**Botros, SM**. (2015) Unaugmented cystocele and paravaginal repairs. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.

**Botros, SM, Gafni-Kane, A, Goldberg, R, Sand, PK, Tomezko, J**, Winters, JC. (2015) Guided anatomic dissection and surgical anatomy of the pelvis. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.

**Botros, SM** and Kenton, K. (2015) Needs assessment of OB/GYN subspecialty fellowship program directors. University of Chicago Medical Education Day, Chicago, IL.

**Byrne, J, Stephens, A**, Kaul, K, **Dinsmoor, MJ**. (2015) Prevalence of cytomegalovirus infection (CMV) in placentas of unexplained small for gestational age (SGA) neonates: A pilot study. Infectious Disease Society for Obstetrics and Gynecology 42nd Annual Scientific Meeting, Portland, OR.

**Coulam, C**. (2015) Association between immunologic causes and superfertility among women experiencing recurrent pregnancy loss. International Symposium for Immunology of Reproduction 14th Annual Meeting, Varna, Bulgaria.

**Coulam, C**. (2015) IVF hot topics. Reproductive Medicine Institute Grand Rounds, Oakbrook, IL.

**Coulam, C**. (2015) Treatment of recurrent implantation failure with intralipid. Royal College of Obstetrics and Gynecology, Reproductive Immunology Masterclass, London, England.

Davis, AC, Rapakko, S, Bertolet, M, Menke, M, **Nayak, S**. (2015) Preinfertility referral patterns patient characteristics that influence evaluation and treatment. American College of Obstetricians and Gynecologists 63rd Annual Clinical and Scientific Meeting, San Francisco, CA.

**Diaz, ES**. (2015) Updates in gynecologic oncology. Association of Physician Assistants in Oncology 18th Annual Meeting, Alexandria, VA.

**Dinsmoor, MJ, Endres, LK, VandenBerg, MJ, Maier, CJ, Yared, E**, Lapin, B, **Plunkett, BA**. (2015) Obesity increases the risk for failure of non-invasive prenatal screening (NIPS), regardless of gestational age. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.

Ezewuiro, O, Grushko, TA, Kocherginsky, M, Habis, M, **Hurteau, JA, Mills, KA, Hunn, J**, Olopade, O, Fleming, GF, Romero, IL. (2015) Association of metformin use with outcomes in advanced endometrial cancer treated with chemotherapy. American Society of Clinical Oncology 50th Annual Meeting, Chicago, IL.

**Fatunde, Y, Yared, E**, Young, D, Lee, SM, Rana, S. (2015) Maternal obesity and the risk of preeclampsia in a predominantly African-American population. North American Society for the Study of Hypertension in Pregnancy Annual Scientific Meeting, Chicago, IL.

- Febbraro, T**, Barber, R, Abramsohn, E, Davidson, ERW, Fleming, G, Yamada, D, Lindau, ST. (2014) A case series of symptoms and genital exam findings among aromatase inhibitor users with breast cancer presenting to a female sexuality clinic. International Society for the Study of Vulvovaginal Disease Annual Meeting, Chicago, IL.
- Feinberg, EC**, Nagy, ZP, Anderson, RE, Hayward, B, Mahony, MC. (2015) The Human Oocyte Preservation Experience (HOPE) Registry: Outcomes from autologous vs. donor oocytes following vitrification and ART. Pacific Coast Reproductive Society 63rd Annual Meeting, Rancho Mirage, CA.
- Gafni-Kane, A**. (2015) No, absolutely no vaginal grafts needed. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Gafni-Kane, A**. (2015) Uterine preservation during reconstructive surgery: You might want that uterus. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Goldberg, R**. (2015) Clinical case: POP vaginal surgery. XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) The effect of pregnancy and delivery on the lower urinary tract. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Goldberg, R**. (2015) Hysteropexy vs. hysterectomy in POP repair. XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) Keep the uterus or hysterectomy?: Expert surgeon debate. XIV Paulista Congress of Urology, São Paulo, Brazil.
- Goldberg, R**. (2015) Live surgery demonstration. XIV Paulista Congress of Urology, São Paulo, Brazil.
- Goldberg, R**. (2015) Reconstruction of anterior vaginal prolapse. Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) Repair of anterior compartment prolapse. XIV Paulista Congress of Urology, São Paulo, Brazil.
- Goldberg, R**. (2015) Repair of anterior vaginal wall. XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) Single incision is better during mesh reconstruction? XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) Uterine preservation: Hysteropexy techniques for the urogynecologist. XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta, Mexico.
- Goldberg, R**. (2015) Vaginal reconstruction with mesh, single incision is best. XXVI Congreso Nacional de La Sociedad Mexicana de Urología Ginecológica (SMUG), Puerto Vallarta Mexico.
- Goodman, C, **Coulam, C**. (2015) Prevalence of immune risk factors in women experiencing recurrent pregnancy loss and frequency of normal karyotypes among their abortuses. Society for Reproductive Investigation 62nd Annual Scientific Meeting, San Francisco, CA.
- Griffith, JW, Stephens-Shields, AJ, Hou, X, Naliboff, B, Pontari, M, Edwards, TC, Williams, D, Afari, N, **Tu, F**, et al. (2015) A psychometric analysis of pain and urinary symptoms in patients with interstitial cystitis/bladder pain syndrome and chronic prostatitis/chronic pelvic pain syndrome: Findings from MAPP Research Network. American Urological Association Annual Meeting, New Orleans, LA.
- Hirsch, E**. (2014) The two things I know about electronic fetal monitoring and four cases that demonstrate them. University of Chicago Neonatal Fellows Didactic Conference, Chicago, IL.
- Hirsch, E**. (2015) Autophagy in preterm labor. American Society for Reproductive Immunology (ASRI) Symposium, American Association of Immunologists Annual Meeting, New Orleans, LA.
- Hirsch, E**. (2015) Life lessons learned: The glorious and ignominious history of innovation in women's health. Bitterman Memorial Lecture, 24th Annual Elliot Blumenthal Resident Research Day, Department of Obstetrics, Gynecology and Reproductive Science, Mount Sinai Beth Israel, New York, NY.
- Hurteau, J**. (2014) Clinical trial update in cervical, vulvar and gestational trophoblastic disease. Society of Gynecologic Oncology Early Career Educational Summit, Chicago, IL.
- Hurteau, J**. (2014) Understanding CA 125 and other tumor markers. West Bloomfield Hospital Gynecologic Cancer Foundation Survivors Course, Detroit, MI.
- Hurteau, J**. (2015) Rare ovarian tumors. Society of Gynecologic Oncology (SGO) Annual Winter Meeting, Salt Lake City, UT.
- Jewell, A, Fehniger, J**, Stewart, C, Lengyel, E, Yamada, SD. (2015) Subsequent chemotherapy is well tolerated in patients who underwent primary adjuvant intraperitoneal chemotherapy for ovarian, fallopian and primary peritoneal cancers. Western Association of Gynecologic Oncologists 44th Annual Meeting, Santa Rosa, CA.
- Jewell, A**, Watters, K, Mitra, A, Bao, R, Yi Chiang, C, Curtis, M, Andrade, J, Yamada, SD, Lengyel, E. (2014) MicroRNA 206 is associated with longer overall survival and platinum sensitivity in serous epithelial ovarian cancer. Society of Gynecologic Oncology Annual Meeting, Tampa, FL.
- Jirschele, K, **Seitz, M, Tran, A, Pandya, L**, Zhou, Y, **Gafni-Kane, A**. (2014) Postoperative voiding dysfunction and predictors of postoperative urinary retention following pelvic reconstructive surgery. Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction, Winter Meeting, Miami, FL.
- Jirschele, K, **Seitz, M, Tran, A**, Zhou, Y, **Botros, SM**. (2015) Simulation based colposcopy residency education using objective structured assessment of technical skills. Council on Resident Education in Obstetrics and Gynecology and Association of Professors of Gynecology and Obstetrics Annual Meeting, San Antonio, TX.

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Jirschele, K, **Seitz, M**, Zhou, Y, Rosenblatt, P, Culligan, P, **Sand, P**. (2014) Prospective trial to evaluate mesh augmented sacrospinous hysteropexy for uterovaginal prolapse. American Urogynecology Society 35th Annual Scientific Meeting, Washington, D.C.

**Kim, J, Mills, K, Fehniger, J, Diaz, E, Febraro, T**, Yamada, SD, Lee, N, Tenney, ME. (2015) Venous thromboembolism in patients receiving extended pharmacologic prophylaxis following robotic surgery for endometrial cancer. Western Association of Gynecologic Oncologists 44th Annual Meeting, Santa Rosa, CA.

**Kim, JJ, La Porte, LM, Adams, M, Silver, RK**. (2015) Outcomes of embedded psychiatric care in a low-income obstetric clinic. Postpartum Support International Annual Conference, Plymouth, MI.

**Kim, JJ, La Porte, LM, Silver, RK**, Gibbons, R. (2015) Computerized adaptive testing: A new frontier in perinatal depression screening. Perinatal Mental Health 2nd Biennial Meeting, Chicago, IL.

Letko, J, Jirschele, K, **Seitz, M**, Ying, Z, **Botros, SM, Sand, PK**. (2014) The short-term use of cyclobenzaprine in patients undergoing vaginal surgery. American Urogynecology Society 35th Annual Scientific Meeting, Washington, D.C.

Liu, J, Barry, WT, Birrer, MJ, Lee, J, Buckanovich, RJ, Fleming, GF, Rimel, BJ, Buss, MK, Nattam, SR, **Hurteau, J**, et al. (2014) A randomized phase II trial comparing efficacy of the combination of the PARP inhibitor olaparib and the antiangiogenic cediranib against olaparib alone in recurrent platinum-sensitive ovarian cancer. American Society of Clinical Oncology 49th Annual Meeting, Chicago, IL.

**Lu, J**, Klein, J, Reese, J, Zhou, Y, **Hirsch, E**. (2015) Developmental changes of membrane progesterone receptor-alpha (mPR $\alpha$ ) and reproduction-related genes in CD-1 mice. Society for Reproductive Investigation 62nd Annual Scientific Meeting, San Francisco, CA.

**Lu, J**, Reese, J, **Hirsch, E**. (2015) Progesterone-induced activation of membrane-bound progesterone receptors in murine macrophage cells. Society for Reproductive Investigation 62nd Annual Scientific Meeting, San Francisco, CA.

Lu, L, Yu, Y, **Filipovich, Y, Hirsch E**, Claud E. (2015) Prenatal microbial exposure induces epigenetic changes and modulates TLR-signaling pathway associated gene expression in the immature intestine. Digestive Disease Week (DDW), Washington, D.C.

**McCarthy, AM**, Quispe Calla, NE, Vicetti Miguel, RD, Cherpes, TL. (2015) Progestins impair anti-viral host defense. Chicago Gynecological Society, Chicago, IL.

**McCarthy, AM**, Quispe Calla, NE, Vicetti Miguel, RD, Cherpes, TL. (2015) Progestins impair anti-viral host defense. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.

**McQueen, D**, Allon, R, **Schufreider, A**, Uhler, ML, **Feinberg, EC**. (2015) Fragile X mental retardation 1 (FMR1) gene CGG repeat number and pregnancy loss. American Society for Reproductive Medicine Annual Meeting, Baltimore, MD.

Meyer, LR, Hazlett, WD, Schorsch, K, **Klipstein, S**, Karande V. (2015) Let's clear the air. In-duct vs. freestanding air filtration: Does it make a difference in viable blastocyst development and pregnancy outcome in an urban, multi-story IVF laboratory setting? American Society for Reproductive Medicine Annual Meeting, Baltimore, MD.

**Mills, K**, Becker, MA, **Febraro, T**, Litchfield, LM, Lengyel, E, Haluska, RI. (2015) Advancing metformin as a metabolic therapeutic for ovarian cancer testing in non-diabetic patient derived xenograft avatars. Society for Gynecologic Oncology Annual Meeting on Women's Cancer, Chicago, IL.

Moss, HA, Winkel, AF, **Jewell, A**, Musa, F, Mitchell, L, Speed, E, Blank, SV. (2014) Narrative medicine: Using reflective writing workshops to help house staff address the complex and challenging nature of caring for gynecologic oncology patients. Society of Gynecologic Oncology Annual Meeting, Tampa, FL.

**Ouyang, DW**. (2015) Generation Rx: Prescription drug abuse in pregnancy. University of Chicago, Department of Obstetrics and Gynecology Grand Rounds, Chicago, IL.

**Ouyang, DW**, Lindquist, AD, Zhou, Y, **Stephens, AJ**. (2015) Prescription drug use and abuse in pregnancy: Common and under recognized. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.

**Rosenbaum, JA, Hellman, KH, Tu, FF**. (2015) Ultrasonographic investigation of the mechanisms involved in menstrual cramps. American Association of Gynecologic Laparoscopists 44th Global Congress on Minimally Invasive Gynecology, Las Vegas, NV.

Ross, K, Miller, G, **Qadir, S, Borders, A**. (2015) Maternal stress during pregnancy and the neonate IL6/IL10 regulatory loop. Society for Reproductive Investigation 62nd Annual Scientific Meeting, San Francisco, CA.

**Sand, P**. (2015) Advances in the treatment of the bladder pain syndrome. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.

**Sand, P**. (2015) Botulinum toxin and vanilloids for idiopathic and neurogenic overactive bladder. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.

**Sand, P**. (2015) Office evaluation for pelvic floor dysfunction. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.

**Sand, P**. (2015) Treating idiopathic and postoperative vulvovaginal pain. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.



- Sand, P.** (2015) Treatment of posterior compartment prolapse with and without adjuvant grafts. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.
- Sand, P.** (2015) Vaginal repair of apical prolapse. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.
- Sand, P, Botros, SM, Goldberg, R.** (2015) Hysteropexy: Who's doing it? A survey of female pelvic surgeons. American Urogynecologic Society 36th Annual Scientific Meeting, Seattle, WA.
- Sand, PK.** (2015) Biological grafts in reconstructive surgery. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Sand, PK.** (2015) Bladder pain syndrome/Interstitial cystitis. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Sand, PK.** (2015) Diagnosis and treatment of overactive bladder syndrome. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Sand, PK.** (2015) Site specific or old fashioned rectocele repairs: Which is best? Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Sand, PK, Botros, SM, Goldberg, R.** (2015) Hysteropexy: Who's doing it? A survey of female pelvic surgeons. International Urogynecologic Association 40th Annual Meeting, Nice, France.
- Sasso, K.** (2015) Behavioral therapy, devices and electrical stimulation for urinary incontinence. Rodney Appell Memorial Update in Gynecologic Urology 20th Annual Conference, Miami, FL.
- Sasso, K.** (2015) Behavioral therapy for stress and urgency incontinence. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Seitz, M, Jirschele, K, Tran, A, Sand, P.** (2014) Complicated urethral diverticulectomy repaired with human dermal graft. International Continence Society Meeting, Rio de Janeiro, Brazil.
- Seitz, M, Tran, A, Iyer, S, Jirschele, K, Zhou, Y, Shalowitz, M, Gafni-Kane, A, Tomezsko, J, Senapati, S.** (2015) Effective surgical treatments for chronic pelvic pain: A discussion of the evidence. American Gynecological and Obstetrical Society Annual Meeting, Half Moon Bay, CA.
- Senapati, S, Atashroo, D, Tu, F.** (2015) Trainee perception of uterine morcellation: The University of Chicago experience. American Association of Gynecologic Laparoscopists 44th Global Congress on Minimally Invasive Gynecology, Las Vegas, NV.
- Tenney, ME, Ham, SA, Lee, KN, **Febbraro, T**, Steppacher, R, Yamada, SD. (2015) The role of extended prophylaxis for venous thromboembolism in patients undergoing minimally invasive surgery for endometrial cancer. Western Association of Gynecologic Oncologists 44th Annual Meeting, Santa Rosa, CA.
- Tien, S,** Crabtree, J, Gray, H, Peterson, E. (2015) Immunologic response to vaccine challenge in PTPN22 gene variants in pregnancy. Society for Maternal-Fetal Medicine 35th Annual Meeting, San Diego, CA.
- Tomezsko, J.** (2015) Estrogen effects on the lower urinary tract. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Tomezsko, J.** (2015) Tension-free midurethral slings. Advances in Urogynecology and Reconstructive Pelvic Surgery 24th Annual Conference, Chicago, IL.
- Tran, AM, Botros, S, Sand, PK.** (2014) Persistence on pharmacotherapy for overactive bladder in a female pelvic medicine and reconstructive surgery division. International Incontinence Society, Rio de Janeiro, Brazil.
- Tran, AM, Sand, PK, Tomezsko, JE,** Zhou, Y, **Seitz, M, Gafni-Kane, A, Botros, S.** (2015) A retrospective comparison of persistence on pharmacotherapy for overactive bladder syndrome amongst specialties. Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction Winter Meeting, Scottsdale, AZ.
- Turrentine, M, Colicchia, L, **Hirsch, E,** Cheng, PJ, Tam, T, Page-Ramsey, S. (2015) Risk of recurrence of GBS in subsequent pregnancies—A systematic review and meta-analysis. American College of Obstetricians and Gynecologists 63rd Annual Clinical and Scientific Meeting, San Francisco, CA.
- Wymer, K, **Plunkett, BA,** Park, S. (2015) Urolithiasis in pregnancy: A cost-effectiveness analysis of ureteroscopic management vs. ureteral stenting. American Urologic Association Annual Meeting, New Orleans, LA.
- Wymer K, **Plunkett BA,** Park S. (2015) Urolithiasis in pregnancy: A cost-effectiveness analysis of ureteroscopic management vs. ureteral stenting. World Congress of Endourology 33rd Annual Meeting, London, England.

## 2015 Grants and Research Support

**Ann Borders, MD, MSc, MPH**

- Principal Investigator: National Children's Study: Vanguard Study – Task Order 5: Stress and Cortisol Measurement for the National Children's Study. A five-site collaboration in investigating self-reported and biological measures of stress in 725 pregnant women.
- Principal Investigator: Centers for Disease Control and Prevention, Illinois Perinatal Quality Collaborative Grant Award to expand the collaborative and implement new perinatal quality initiatives with hospitals throughout the state of Illinois.
- Awardee: Illinois Department of Healthcare and Family Services (HFS): Provide high-risk obstetrics consultation, leadership and oversight for HFS initiatives to improve pregnancy outcomes for high-risk women, leading the CHIPRA WORKGROUP E, Perinatal Health Committee and serving as a consultant for the Illinois High-Risk Maternity/Interconception Care Quality Improvement Initiative.
- Awardee: North Suburban Healthcare Foundation to create the Breastfeeding Peer Counselor Community Partnership (BPCCP) initiative based at NorthShore University HealthSystem, Evanston Hospital.
- Co-Investigator with effort supported by the NorthShore Auxiliary Award in collaboration with Greg Miller, PhD, Co-Principal Investigator, Northwestern University: Stress and maternal-fetal health during pregnancy (EH13-402) focuses on how maternal socioeconomic status influences offspring immune functions.
- Co-Investigator with effort supported by the NorthShore Auxiliary Award in collaboration with Greg Miller, PhD, Co-Principal Investigator, Northwestern University: Social conditions in pregnancy and fetal development (EH13-256) explores how the social, economic and lifestyle conditions of pregnancy affect the early stages of fetal development.
- Co-Investigator with effort supported by the NorthShore Auxiliary Award in collaboration with Janine Lewis (UIC): Stress measurement in middle/upper income postpartum women: An analysis and refinement of the PRAMS Life Events Questions is a qualitative study to understand stressors in the lives of middle/upper class African-American and Caucasian women, and how perceived stress caused by these factors may lead to adverse birth outcomes.

**Sylvia Botros, MD, MSCI**

- Principal Investigator: A prospective, non-randomized, parallel cohort, multi-center study of Xenform vs. native tissue for the treatment of women with anterior/apical pelvic organ prolapse. Sponsor: Boston Scientific.
- Principal Investigator: The role of the integration of tissue components in pelvic floor tissue biomechanics associated with pelvic organ prolapse. Sponsor: University of Chicago-ITM/NorthShore Research Institute Special Pilot Grant Program.

**Elena Diaz, MD**

- Principal Investigator with effort supported by the NorthShore Auxiliary Award: Pilot study of the impact of early palliative care on quality of life in recurrent ovarian cancer.
- Principal Investigator: Venous thrombosis in patients receiving extended pharmacologic prophylaxis following minimally invasive surgery for endometrial cancer. Sponsor: NorthShore

**Mara Dinsmoor, MD, MPH**

- Principal Investigator: Investigational study of a prenatal diagnostic test for fetal aneuploidy, Protocol TT-001. Sponsor: Tandem Diagnostics, Inc.
- Principal Investigator: Non-invasive Examination of Trisomy (NEXT) Study; Multicenter study of aneuploidy screening comparing cell-free fetal DNA to current first trimester screening. Sponsor: Ariosa Diagnostics.
- Site Principal Investigator: Maternal Fetal Medicine Units Network; An observational study of hepatitis C virus in pregnancy.
- Site Principal Investigator: Maternal Fetal Medicine Units Network; Induction in nulliparous women at 39 weeks to prevent adverse outcomes: A randomized trial of induction vs. expectant management (ARRIVE).
- Site Principal Investigator: Maternal Fetal Medicine Units Network; A randomized trial of thyroxine therapy for subclinical hypothyroidism or hypothyroxinemia diagnosed during pregnancy (TSH).
- Site Principal Investigator: Maternal Fetal Medicine Units Network; A randomized trial to prevent congenital CMV infection (CMV).

**Kevin Hellman, PhD**

- Principal Investigator: National Institute of Child Health and Human Development (R21HD081709); Neurophysiological diagnostics for menstrual pain.
- Co-Investigator: National Institute for Health; Deciphering the hormonal and nociceptive mechanisms underlying bladder pain (R01).

**Emmet Hirsch, MD**

- Co-Investigator: University of Washington National Primate Research Center/Institute of Translational Health Sciences (WaNPRC/ITHS) Ignition Award; Surfactant protein A to prevent preterm birth.
- Consultant: Global Alliance for the Prevention of Prematurity and Stillbirth (GAPPS); Development of gene-specific progesterone receptor modulators to prevent preterm birth.
- Principal Investigator: The Satter Foundation Fund in Perinatal Research; Toward the prevention of preterm birth.
- Principal Investigator: University of Chicago 2014 Babies Alumni Fellowship Award; TLR3 and NOD2 synergy in macrophages: A role for viral priming in inflammation-induced parturition.
- Project Mentor: Eunice Kennedy Shriver National Institute of Child Health and Human Development (K23 HD065844-01); Bacterial vaginosis: Vitamin D links mucosal immunity and patient risk.

### **Jean Hurteau, MD**

- Principal Investigator: A phase 3 placebo-controlled study of carboplatin/paclitaxel with or without concurrent and continuation maintenance veliparib (PARP Inhibitor) in subjects with previously untreated stages III or IV high-grade serous epithelial ovarian, fallopian tube, or primary peritoneal cancer, Protocol Number M13-694. Sponsor: AbbVie.
- Principal Investigator: Gynecological Oncology Group (GOG) 0258; A randomized phase III trial of cisplatin and tumor volume directed irradiation followed by carboplatin and paclitaxel versus carboplatin and paclitaxel for optimally debulked, advanced endometrial carcinoma.
- Principal Investigator: GOG 0238; A randomized trial of pelvic irradiation with or without concurrent weekly cisplatin in patients with pelvic-only recurrence of carcinoma of the uterine corpus.
- Principal Investigator: GOG 0274; Phase III trial of adjuvant chemotherapy as primary treatment for locally advanced cervical cancer compared to chemoradiation alone: The outback trial.

### **Jo Kim, PhD**

- Awardee: North Suburban Healthcare Foundation; Expanding the safety net for mothers and families three-year program grant award.
- Principal Investigator: State of Illinois Department of Human Services; NorthShore Hotline Community Services Agreement.
- Principal Investigator: Muneer A. Satter and Kristen H. Hertel; Identifying and helping women and families at risk for perinatal mood disorders.
- Principal Investigator: Implications of perinatal depression screen administration. Sponsor: NorthShore

### **Gustavo Rodriguez, MD**

- Site Principal Investigator: The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc./DOD; Gynecological Cancer Translational Research Center of Excellence (GYNE-COE) (W81XWH-11-2-0131).
- Principal Investigator: Bears Care.
- Principal Investigator: A phase III, randomized, double blind, placebo controlled, multicentre study of olaparib maintenance monotherapy in BRCA Mutated relapsed ovarian cancer patients who are in complete or partial response following platinum based chemotherapy, D0816C00002. Sponsor: Astra Zeneca
- Principal Investigator: A randomized placebo controlled phase II trial of metformin in conjunction with chemotherapy followed by metformin maintenance therapy in advanced stage ovarian, fallopian tube and primary peritoneal cancer. Sponsor: The University of Chicago

- Principal Investigator: Carboplatin and dose-dense paclitaxel and treatment combinations for the treatment of advanced and recurrent ovarian cancer. Sponsor: NorthShore
- Principal Investigator: National Center Institute (NCI) 9671; Exceptional responders pilot study: Molecular profiling of tumors from cancer patients who are exceptional responders.
- Principal Investigator: The University of Arizona/DOD; Endoscopic and karyometric assessment of fallopian tube health for ovarian cancer prevention.
- Principal Investigator: Evaluation of metformin and simvastatin for the chemoprevention of endometrial cancer. Sponsor: NorthShore
- Principal Investigator: Evaluation of metformin and simvastatin therapy for endometrial cancer using a xenograft mouse model. Sponsor: NorthShore

### **Peter Sand, MD**

- Principal Investigator: A study evaluating the efficacy and safety of botox and solifenacin in patients with overactive bladder and urinary incontinence, Protocol 191622-125. Sponsor: Allergan
- Principal Investigator: A double-blind, randomized, controlled trial comparing the safety and efficacy of AMDC-USR with placebo in female subjects with stress urinary incontinence, Clinical Investigation Plan No. 13-003. Sponsor: Cook MyoSite, Inc.
- Principal Investigator: Post-operative pain, and perceptions of recuperation, after suture-based, vs. mesh-based sacrospinous suspension. Sponsor: Boston Scientific
- Principal Investigator: A multi-centre, double-blind, randomised trial investigating the efficacy and safety of a combination therapy, desmopressin and tolterodine, for treatment of overactive bladder with nocturia in women, Protocol 15214. Sponsor: Ferring Pharmaceuticals
- Principal Investigator: Uphold™ LITE. Sponsor: Boston Scientific

### **Frank Tu, MD, MPH**

- Principal Investigator: National Institute of Health; Deciphering the hormonal and nociceptive mechanisms underlying bladder pain (R01).
- Principal Investigator: A randomized, double-blind, placebo-controlled study to evaluate the safety and efficacy of elagolix in subjects with moderate to severe endometriosis-associated pain, Protocol No. M12-671. Sponsor: AbbVie
- Co-Investigator: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Multidisciplinary approach to pelvic pain.
- Principal Investigator: ICECAN: Interstitial Cystitis Effects of the Central Autonomic Network. Sponsor: Medical College of Wisconsin/NIH.

## STAFF

# Service to the Department Committees

### Executive Committee

Mara Dinsmoor, MD, MPH  
Eve Feinberg, MD  
Roger Goldberg, MD, MPH  
Deanna Hanks, MHSA  
Emmet Hirsch, MD  
Marion Jelcz, MD  
Edward Lee, MD  
Scott MacGregor, DO  
Mark Neerhof, DO  
Kenneth Nelson, MD  
Beth Plunkett, MD, MPH  
Gustavo Rodriguez, MD  
H. Jacob Saleh, MD  
Sangeeta Senapati, MD, MS  
Richard Silver, MD<sup>1</sup>  
Frank Tu, MD, MPH  
Arnold Wagner, MD

### Gynecologic Quality Case Review Committee

James Louis Alford, MD<sup>3</sup>  
Cheryl Axelrod, MD  
Brook Ayyad, RN<sup>8</sup>  
Sylvia Botros, MD, MSCI  
Carl Buccellato, MD  
Carol Ellman, MD  
Elizabeth Forbes, MD  
Pamela Goodwin, MD  
Jean Hurteau, MD  
Susan Kramer, MD  
Traci Kurtzer, MD  
Kimberly Moloney, MD  
Mary Mulcrone, RN<sup>4</sup>  
Kenneth Nelson, MD<sup>1</sup>  
Janet Tomezsko, MD<sup>2</sup>  
Alexis Tran, DO  
Frank Tu, MD, MPH  
Arnold Wagner, MD  
William Watkin, MD<sup>5</sup>  
*Ex-Officio*  
Richard Silver, MD

### Perinatal Quality Review Committee

Bernhard Allgaier, MD<sup>9</sup>  
Michael Amer, MD<sup>9</sup>  
Suzanne Ashby, DO  
Brook Ayyad, RN<sup>8</sup>  
Rachel Cordts, RN  
Phillip Horcher, MD<sup>9</sup>  
Marion Jelcz, MD  
Michael Kaufman, MD<sup>5</sup>  
Peggy King, RN<sup>4</sup>  
Debora Lesnick, CNM  
Mary Mulcrone, RN<sup>4</sup>  
Sarah Nee, RN  
Mark Neerhof, DO  
Ken Nelson, MD  
Ann Newkirk, RN  
David Ouyang, MD  
Laura Pearlman, MD  
Barrett Robinson, MD, MPH<sup>1</sup>  
Myra Sabini, RNC<sup>2</sup>  
Susan Warner, MD  
Miriam Whiteley, MD<sup>6</sup>  
*Ex-Officio*  
Michael Caplan, MD  
Richard Silver, MD

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Carol Cislak, MD  
Rachel Cordts, RN  
Linda Given Welch, CNM, MS  
Ian Grable, MD, MPH  
Linda Holt, MD  
Marion Jelcz, MD  
Kristin Jones, DO  
Edward Lee, MD  
Barbara McQuillan, RN  
Mark Neerhof, DO  
Karen Kelly, PharmD<sup>7</sup>  
Veronica Priest, RN  
Jennifer Roeder, RN  
Kim Spivey, RN  
Shelly Tien, MD, MPH<sup>1</sup>  
Miriam Whiteley, MD<sup>6</sup>  
Lawrence Yeager, MD

### Clinical Outcomes Committee

Richard Adis, MD  
David Alspach, MD<sup>3</sup>  
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Corrinna Brudner, BSc<sup>10</sup>  
Rachel Cordts, RN  
Ian Grable, MD, MPH  
Karen Kelly, PharmD<sup>7</sup>  
Sandy Leung, RN  
Anita Little, RN  
Kay Meyer, RNC, MS  
Jeremy Miller, MD  
Mary Mulcrone, RN<sup>4</sup>  
Mark Neerhof, DO<sup>2</sup>  
Ken Nelson, MD  
Ann Newkirk, RN<sup>2</sup>  
Karen Plewe, RNC, MS  
Veronica Priest, RN  
Jennifer Roeder, RN  
Kim Spivey, RN  
Teresa Zeller, RN

- 1 Chair
- 2 Co-Chair
- 3 Anesthesiology
- 4 Risk Management
- 5 Pathology
- 6 Family Medicine
- 7 Pharmacy
- 8 Quality Improvement
- 9 Neonatology
- 10 Infection Control

## Department Growth

**The Department realized important growth in new members in 2015. Each is playing a critical role in realizing our goals of outstanding clinical care, leading academics and recognized research.**

**Sarah Bartulis, CNM**, received her Master of Science in Nursing-Midwifery at the University of Illinois. She is currently in practice at North Shore Associates in Gynecology and Obstetrics with Drs. Gail Goldberg, Pamela Goodwin, Kim Johnson, Abbe Kordik and H. Jacob Saleh and Certified Nurse Midwives Gaye Koconis, Debora Lesnick and Barbara Zimmerman-Minnich.

**Carolyn Botros, DO**, received her medical degree from Rowan University School of Osteopathic Medicine and completed her residency in Obstetrics and Gynecology at Atlantic Health System. She is pursuing Urogynecologic fellowship training in the NorthShore Division of Urogynecology and Reconstructive Surgery.

**Mary Conte, MD**, received her medical degree from Wright State University Boonshoft School of Medicine and completed her residency in Obstetrics and Gynecology at Presence Saint Joseph Hospital. She is in practice with Drs. Joanna Horwitz, Kristin Jones, Michael Muresan and Lauren Thorpe at the newly formed Morton Grove pod of the NorthShore Medical Group.

**Katelynne Finnegan, MPH**, received her Master of Public Health degree from DePaul University. She is serving as Research Coordinator in the Division of Maternal-Fetal Medicine.

**Joanna Horwitz, MD**, received her medical degree from Rosalind Franklin University of Medicine and Science, Chicago Medical School and completed her residency in Obstetrics and Gynecology at Loyola University Medical Center. She is in practice with Drs. Mary Conte, Kristin Jones, Michael Muresan and Lauren Thorpe at the newly formed Morton Grove pod of the NorthShore Medical Group.

**Kristin Jones, DO**, received her medical degree from Midwestern University, Chicago College of Osteopathic Medicine and completed her residency in Obstetrics and Gynecology at Presence Saint Joseph Hospital. She is in practice with Drs. Mary Conte, Joanna Horwitz, Michael Muresan and Lauren Thorpe at the newly formed Morton Grove pod of the NorthShore Medical Group.

**Lauren Keenan-Devlin, PhD, MPH**, received her Doctorate in Medical Anthropology degree and Master of Public Health degree from Northwestern University. She is serving as Research Coordinator in the Division of Maternal-Fetal Medicine.

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