Transforming Women’s Healthcare For Today And Tomorrow
As we reflect on the past year, I am particularly proud of how our collaborative team has come together to put our new discoveries to work in real time. Every day, we incorporate the latest findings and best evidence-based practices into the excellent clinical care we offer our patients.

This commitment to continually enhance our patient care is at the heart of who we are as a Department and reflects NorthShore University HealthSystem’s (NorthShore’s) mission “to preserve and improve human life.” Our physician-scientists compete at the highest levels and again this year have been awarded multiple National Institutes of Health (NIH) and other significant external grants in support of innovative research. Only the best ideas and most promising studies are supported at this level. We have expanded our research team, adding personnel to support these robust, growing programs. And all of our clinical staff support enrollment of patients in clinical trials and implementing new protocols into patient care settings. We look forward to continued discovery and the ability to share new knowledge and improve patient care at NorthShore and beyond.

Our clinicians have advanced new programs like Enhanced Recovery After Surgery (ERAS), improving outcomes and ensuring patient safety. With ERAS in place for gynecology, we have also implemented this vital protocol for cesarean section patients, providing essential benefits for new mothers with shorter hospitalization, better pain control and reduced use of narcotics.

We are most grateful for our philanthropic supporters. Donations from patients, families and members of our community at large are critical to our ability to pursue life-changing research and to sustain many aspects of our compassionate, personalized care.

I also extend my personal thanks to the dedicated members of this Department who work tirelessly on behalf of our patients. The initiatives and accomplishments highlighted in this Annual Report represent our shared success and, most importantly, our commitment to offering the highest level of patient care.

Richard K. Silver, MD
The Auxiliary of NorthShore Chair of Obstetrics and Gynecology
Department of Obstetrics and Gynecology
Clinical Professor and Chief Academic Officer
NorthShore University HealthSystem

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DEPARTMENT HIGHLIGHTS
Clinical Excellence

Department highlights reflect not only a commitment to excellence in patient care, but also a dedication to advancing knowledge through innovative research and an ability to leverage the latest findings to improve care in real time.

Enhanced Recovery After Surgery (ERAS)

Enhanced Recovery After Surgery (ERAS) is an evidence-based, multimodal approach to perioperative care that has been shown to minimize pain, reduce complications and decrease narcotic usage. Building on the successful implementation of ERAS protocols for other surgical specialties at NorthShore, the Quality and Care Transformation Department has been instrumental in defining selected protocols in gynecology and obstetrics, supported in partnership with Elena Moore, MD (Gynecologic Oncology), Mark Neerhof, DO (Obstetrics), and Frank Tu, MD (Gynecology and Minimally Invasive Surgery). Implementation involved multidisciplinary teams that developed workflows, order sets and patient education materials. Our ERAS protocols challenge conventional wisdom for surgical patients—encouraging women to eat prior to surgery and to ambulate shortly afterwards. Key metrics for evaluating the effectiveness of the protocol include rates of complications, need for readmission and, especially, opioid use comparing ERAS patients to historical cases in which the protocol was not yet available.

NorthShore implemented ERAS for abdominal hysterectomy in August 2018. Within months of implementation, more than 80 percent of eligible patients followed the protocol. Early results are very positive, with reductions in length of stay (25 percent) and opioid use (85 percent). Application of this protocol for laparoscopic hysterectomy is planned for 2019.

ERAS has only been used to a limited extent for cesarean section in the United States. In October, NorthShore introduced an ERAS pilot for elective cesarean section in five practice locations. Similar to the experience with abdominal hysterectomy, patients on the protocol demonstrated a reduction in length of stay (23 percent) and less opioid use for pain management (76.7 percent)—both during hospitalization and after discharge.
The Illinois Perinatal Quality Collaborative (ILPQC) is a collaborative of physicians, nurses, hospital teams, public health practitioners and other stakeholders implementing data-driven, evidence-based practices to improve maternal and neonatal outcomes in Illinois. Ann Borders, MD, MSc, MPH, is a physician in the Maternal-Fetal Medicine Division and has served as the Executive Director and Obstetrics Lead for ILPQC since its inception. Since 2013, ILPQC has supported more than 119 Illinois hospitals in quality initiatives that have improved clinical outcomes across the state.

In May 2018, ILPQC launched the Mothers and Newborns Affected by Opioids (MNO) initiative to work with participating hospitals with obstetric and neonatal teams to implement a new standard of care for opioid use disorder (OUD) screening and treatment.

The Mothers and Newborns Affected by Opioids (MNO) initiative has garnered extensive hospital participation as a neonatal initiative, with four times the number of hospitals participating in this compared to the prior year.

**Statewide Hospital Participation**

<table>
<thead>
<tr>
<th>Initiative Participation</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<td>Obstetrics Initiative</td>
<td>18</td>
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<tr>
<td>Neonatal Initiative</td>
<td>107</td>
<td>110</td>
<td>88</td>
<td>85</td>
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The rate of maternal opioid overdose deaths in Illinois has increased 175 percent from 2008 to 2017. There was also a 53 percent increase in the neonatal abstinence syndrome (NAS) rate between 2011 and 2015/2016. Drug overdose now kills more pregnant/postpartum women annually in Illinois than any other cause, including hemorrhage or hypertension.

The work of this initiative is coordinated between complementary obstetric and neonatal teams at participating hospitals. The obstetric hospital teams are implementing early universal screening for OUD using a validated screening tool, activating an OUD protocol for care of all women who screen positive for OUD, and executing an OUD Clinical Care Checklist to standardize care. Neonatal hospital teams aim to improve the care of opioid exposed newborns through decreasing the number of newborns who require pharmacologic treatment for NAS, increasing breastfeeding rates in eligible newborns, and increasing the number of newborns discharged with a coordinated safe discharge plan.

The initiative was successful in increasing the percentage of women treated within 60 minutes from 41 percent (baseline, 2015) to 85 percent (December 2017) and sustained improvement through 2018 (86 percent). During the same time period, Illinois hospitals experienced a 50 percent reduction in severe maternal morbidity, from 10.3 percent (baseline, Q4 2015) to 5.1 percent (Q4 2017).
Research Leadership

Research Success by the Numbers

Our Department promotes high-quality research, and as a result we are on the leading edge of clinical innovations and translating research results into clinical practice.

The National Institutes of Health (NIH) funding process is extremely competitive, with only a small percentage of scored applications being awarded funding. In 2017–2018, seven new NIH studies were initiated within the Department. These new projects represent:

- **New NIH Funding in 2018 (period budget):** Over $2.1 Million
- **New Multiyear NIH Funding (project budget):** Over $10.4 Million
- **Number of NIH-Funded Physician and Research Scientists:** 6

Pain Impact on Multisensory Hypersensitivity (EMPATHY) is one of the exciting new NIH-funded initiatives. More than 50 percent of women in the United States suffer from painful periods. Unfortunately, painful periods put women at risk for chronic pelvic pain disorders, such as bladder pain syndrome. Frank Tu, MD, MPH, and Kevin Hellman, PhD, and their team are working to figure out why painful periods occur, their biochemical causes and if those causes also produce chronic pelvic pain. The lab is taking a longitudinal approach by studying painful periods in teen girls. EMPATHY was awarded $3.3 million in funding from NIH over five years to complete this important work.

A Randomized Trial of Induction versus Expectant Management (ARRIVE) is a prime example of the Department’s focus on research that impacts how care is delivered.

This study compared first-time moms who are induced at 39 weeks to those who are managed until 41 weeks gestation to determine whether induction at 39 weeks reduces the risk of severe neonatal morbidity and perinatal mortality.

"Labor Induction versus Expectant Management in Low-Risk Nulliparous Women" was published on August 9, 2018, in The New England Journal of Medicine. NorthShore was one of 41 hospitals participating in the randomized control trial, and our Maternal-Fetal Medicine Unit (MFMU) research team enrolled 159 patients in the study.

Results of this study will impact standard of care for induction.

The key findings of this important research trial are as follows:

- There was no significant difference in the primary outcome (severe neonatal morbidity) between women in the induction of labor group and those in the expectant management group (4.3 percent versus 5.4 percent, respectively).
- Women in the induction of labor group had a significantly lower cesarean delivery rate as compared to women in the expectant management group (18.6 percent versus 22.2 percent, respectively, with a relative risk of 0.84 and a 95 percent confidence interval of 0.76–0.93).
- Women in the induction of labor group developed high blood pressure less frequently compared to women in the expectant management group (9.1 percent versus 14.1 percent, respectively, relative risk of 0.64 with a 95 percent confidence interval of 0.56–0.74).

25% of women with chronic pelvic pain are bedridden 3 days a month.
Fellowship in Minimally Invasive Gynecologic Surgery

The Department added a Fellowship in Minimally Invasive Gynecologic Surgery (FMIGS) to its educational programs. Sangeeta Senapati, MD, MS, serves as the Program Director for this two-year fellowship offered in collaboration with the University of Chicago Pritzker School of Medicine. The overall goal of the NorthShore University HealthSystem/University of Chicago Fellowship in Minimally Invasive Gynecologic Surgery is to train fellows who excel as clinicians and surgical teachers, possess a strong basic understanding of how to apply practical research results in gynecology, and have the tools to contribute academically to their unique area of interest. Our program places a strong emphasis on visceral pain disorders such as endometriosis-associated pelvic pain, as we see and treat patients in a comprehensive Center for Pelvic Health with practitioners from urogynecology, physical therapy, colorectal surgery and gastroenterology.

Additional faculty representation from across NorthShore and the University of Chicago include:
- Shari Snow, MD*, Associate Program Director
- Laura Douglass, MD*
- Adam Gafni-Kane, MD**
- Mary Tilley Jenkins Vogel, MD**
- Frank Tu, MD, MPH**

* University of Chicago Pritzker School of Medicine faculty
** NorthShore University HealthSystem faculty

Distinguished Honors
2018 NorthShore Medical Group Awards

NorthShore Medical Group annually recognizes the contributions of its members through four awards—Outstanding Academician, Distinguished Service Award (Primary and Specialty Care) and Distinguished Contribution to Medicine. In 2018, members from the Department of Obstetrics and Gynecology earned three of the four awards!

Emmet Hirsch, MD, won the Outstanding Academician award, which recognizes a member whose outstanding contributions to clinical research, medical science and teaching have elevated the legacy of NorthShore Medical Group.

Dr. Hirsch is the Vice Chairman for Faculty Development and Clinical Practice and a Clinical Professor at the University of Chicago Pritzker School of Medicine. He has presented more than 100 scholarly lectures related to his research on the mechanisms of preterm birth and potential therapies to avoid it, and he has authored more than 60 publications and been awarded more than 30 externally funded research grants, including four National Institutes of Health (NIH) grants.

Carl Buccellato, MD, won the Distinguished Service Award (Primary Care), which recognizes a member who embodies the principles of the Physician Service Values, and whose outstanding contributions elevate the legacy carried on through the NorthShore Medical Group.

Dr. Buccellato is the Lead Physician for the OB/GYN Medical Group North Pod, primarily serving Lake County, Illinois. He promotes NorthShore’s complementary goals of patient-centered care and clinical excellence. Dr. Buccellato models a commitment to providing patients with comprehensive and compassionate care while promoting the dissemination of evidence-based practice within his own team and broadly through participation on hospital and community-based committees.

Scott MacGregor, DO, won the Distinguished Service Award (Specialty).

Dr. MacGregor is the Director for the Division of Maternal-Fetal Medicine and Vice Chairman of Specialty Clinical Care for the Department. Since 2001, he has built the Centers for Maternal and Fetal Health, which span seven locations, offering consultative, diagnostic and therapeutic services. In addition, he leads the Evanston Perinatal Center (featured on page 14), which serves six additional hospitals on Chicago’s North Shore.
2018 DIVISION HIGHLIGHTS

Improving Outcomes

Our collaborative team of physicians and other caregivers throughout the Department is dedicated to providing the best possible patient experience, working together to continually improve patient care, safety and outcomes.

Division of Gynecology

The Division of Gynecology promotes evidence-based procedural management of gynecological disorders throughout the continuum of outpatient and inpatient settings. Members are committed to lifelong and collaborative learning for the benefit of our patients. We enjoy a strong relationship with hospital-based quality in support of safety, cost-effectiveness and patient-centered care.

2018 Highlights

Surgical volume for the Division is strong. In fiscal year 2018, we performed more than 3,400 surgical cases across our four pavilions. Implementation of the Enhanced Recovery After Surgery (ERAS) protocol for abdominal hysterectomy took place in August 2018.

The Division maintains a robust peer-review process of our ongoing care and hosts a multidisciplinary Gynecology Quality Committee, chaired by Jeremy Miller, MD. Cases for Committee review are selected from a list identified by specific criteria that may be related to surgical complications.

In 2018, the Committee reviewed 13 cases of which two were referred for additional review. The process continues to provide additional education for Department members with a goal of overall improved patient care and safety.

Division of Obstetrics

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.

2018 Highlights

There are 79 obstetricians, seven family practitioners and 10 midwives providing obstetric care at NorthShore. In fiscal year 2018, 4,711 mothers delivered 4,823 babies at NorthShore Evanston and Highland Park Hospitals. Evanston Hospital also serves as a tertiary referral center for patients with pregnancy complications in the north and northwest suburbs of Chicago.

In October, we introduced ERAS for cesarean section at NorthShore. (See page 1 for more information on ERAS in Obstetrics and Gynecology.)

2018 Clinical Outcomes

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<th>NorthShore</th>
<th>Vizient Peer Group Average</th>
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<tbody>
<tr>
<td>Primary CS</td>
<td>15.1%</td>
<td>17.6%</td>
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<tr>
<td>Repeat CS</td>
<td>11.3%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Total CS</td>
<td>26.3%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Vaginal Trial of Labor after CS</td>
<td>43.7%</td>
<td>27.7%</td>
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NorthShore joined a new data-collection tool called Vizient this year. Vizient allows us to benchmark ourselves in comparison to the top hospitals in the country. We use this tool to evaluate our performance on various metrics to optimize the quality of care.

NorthShore ranks in the top quartile compared to hospitals of similar size and acuity with respect to our primary cesarean section (CS) rate and repeat cesarean section rate. We also rank in the top quartile with respect to the incidence of postpartum infections.

The Division of Obstetrics is committed to supporting the initiatives of the Illinois Perinatal Quality Collaborative. In 2018, we have become actively involved in two new initiatives. Mothers and Newborns Affected by Opioids (MNO) is an initiative intended to increase identification of and optimize treatment of opioid abuse in pregnancy. The second initiative, Immediate Postpartum Long-Acting Reversible Contraception (IPLARC), is an effort to increase availability of long-acting contraceptives to patients who have recently delivered.

The quality of obstetric care provided at NorthShore is reflected by our patient satisfaction scores from Press Ganey, which placed us in the 91st percentile nationwide this last year.
The entire Maternal-Fetal Medicine (MFM) team cheered Caitlin Flando when her weight finally reached 100 pounds in her third trimester. It was one of the many small victories along the way of her incredibly challenging and somewhat miraculous pregnancy.

Plagued by severe Crohn’s disease and irritable bowel syndrome (IBS) for years, Flando actually learned she was pregnant during a hospitalization caused by an intestinal abscess. Her weight had plummeted to 72 pounds, and Flando was not even able to keep water down.

Flando and her husband Tony were shocked and amazed as they had already been considering options like adoption to become parents. They met with MFM Director Scott MacGregor, DO, the next day and began an intense partnership with the MFM team as they worked together to sustain a healthy pregnancy.

First, she had to get healthy. Treatment included steroids, rounds of antibiotics and ultimately surgery at 13 weeks to remove the diseased section of her colon. “I knew if I wanted this baby, I had to get this abscess out. The doctors were great, and always very honest, talking us through the risks and helping me manage my stress and take care of myself,” recalled Flando.

As a team, they decided that Flando needed total parenteral nutrition (TPN) given intravenously to help her gain strength and get ready for her small bowel resection.

“Caitlin is very smart and clinically savvy. She has a good understanding of her disease, and she was a very active participant in her care,” said MFM specialist Shelly Tien, MD, MPH, who also credited Flando for her unflagging optimism. “She always had such a bright spirit throughout the entire pregnancy. As her care team, we could feel that and we were all working together.”

Flando’s multidisciplinary care included specialists from gastroenterology, endocrinology and the entire MFM group. Week after week, Flando continued to defy the odds. “We got to know everyone at the office, and they were like family. It was awesome to see them all cheering for me,” she said.

At 40 weeks, Flando gave birth to Anthony Roman Flando. “He was perfect! That my body could handle so much more than we ever thought was amazing. I am so blessed that I landed with that group,” said Flando. “All of these teams worked together and were constantly on point with my care. It was beyond impressive.”
Division of Maternal-Fetal Medicine

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. 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 Evanston Hospital and in each of the six satellite sites throughout the north and northwest Chicago metropolitan area. The CMFH consolidates the services of the Division of Maternal-Fetal Medicine and the FDCs offering integrated and advanced technology and services.

2018 Highlights

The Division of Maternal-Fetal Medicine (MFM) has continued our commitment to quality improvement in clinical services, research activities and educational opportunities in the past year. Our group’s primary clinical site is Evanston Hospital; however, we also provide services at six other FDC sites in Glenbrook, Highland Park, St. Francis–Evanston, Arlington Heights, Libertyville and Gurnee.

The FDCs provide more than 30,000 services annually. The centers are American Institute of Ultrasound in Medicine (AIUM) certified. Our ultrasonographers maintain certification in first trimester genetic screening (both nuchal translucency and nasal bone), and the CMFH continues to be one of the leaders in genetic screening and testing for fetal aneuploidy.

Resident Education: NorthShore is the primary affiliate site for the University of Chicago Obstetrics and Gynecology Residency training program. Barrett Robinson, MD, MPH, is the Site Co-Director at Evanston for the residency program.

MFM Fellow Education: NorthShore is the primary site for the University of Chicago MFM Fellowship training program under the direction of David Ouyang, MD. Our four fellows—Lena Braginsky, Javier Rodriguez Kovacs, Caitlin MacGregor and Samantha de los Reyes—are actively involved in our clinical services and research activities.

Simulation Education: Ian Grable, MD, MPH, provides leadership of curriculum in Obstetrics for the Grainger Center for Simulation and Innovation with simulation training for physicians, fellows, residents and students. This year’s simulations have included training for the residents (postpartum hemorrhage with Bakri balloon and B-Lynch suture, forceps delivery, fetal demise counseling, cervical cerclage placement) and MFM fellows (communication training, counseling in periviable gestations, chorionic villus sampling and percutaneous umbilical cord blood sampling).

Ann Borders, MD, MSc, MPH, serves on the March of Dimes Big 5 National Perinatal Quality Collaborative Executive Leadership Team and serves as the March of Dimes Big 5 Illinois Team Lead. The March of Dimes Big 5 develop national initiatives to improve perinatal outcomes.

Beth Plunkett, MD, MPH, is the Director of Research for the Department of Obstetrics and Gynecology. The Division currently has more than 20 active, IRB-approved clinical trials. These research efforts have resulted in numerous presentations at leading scientific research meetings and numerous publications in leading peer-reviewed journals.

We are one of only 14 clinical trial centers of the NICHD-sponsored MFM Unit Network under the direction of Dr. Plunkett (Site Principal Investigator). The MFM Unit participation allows our patients access to the most innovative and important clinical trials. Current studies include a randomized trial comparing treatments in patients with twin pregnancies and shortened cervix to reduce preterm delivery and a randomized trial comparing treatments in singleton pregnancies with shortened cervix to reduce preterm delivery.
Division of Gynecological Pain and Minimally Invasive Surgery

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.

2018 Highlights

Frank Tu, MD, MPH, and co-investigator Kevin Hellman, PhD, were awarded a $3.3 million grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) to initiate a novel study of the early trajectory of menstrual pain and sensory sensitivity. The study, nicknamed “EMPATHY,” explores what factors underlie the emergence of menstrual pain and other factors predictive of the development of chronic visceral pain and generally, sensory sensitivity. Over a five-year period, they will follow the progression of 375 adolescents using sensory testing, diary evaluations and monitoring of brain activity. This unique study will allow the most comprehensive identification of factors responsible for the development of menstrual and chronic visceral pain in a young cohort to date.

Members of the Division received multiple awards:

- At the International Association for the Study of Pain, Dr. Hellman received an award for his poster with Dr. Tu on “Multisensory hypersensitivity among women with dysmenorrhea.” Their poster demonstrated how multiple sensory mechanisms converge, which exacerbates the risk for chronic pelvic pain among women with dysmenorrhea.
- Folabomi Oladosu, PhD, received an award at the International Pelvic Pain Society (IPPS) on the relationship between autonomic dysfunction and central pain mechanisms in women with dysmenorrhea.
- Dr. Oladosu also received an award for best poster at a regional postdoctoral conference. Her poster elucidated pharmacological mechanisms underlying drug resistance in dysmenorrhea.
- A Stevenson High School student training in the Tu/Hellman lab, Arielle Shlobin, was awarded an oral presentation at IPPS. Her presentation was on factors underlying the risk for irritable bowel syndrome among women with dysmenorrhea.
- Dr. Oladosu, Hellman and Tu’s American Journal of Obstetrics and Gynecology paper titled, “Nonsteroidal anti-inflammatory drug resistance in dysmenorrhea: epidemiology, causes and treatment” received a Faculty of 1000 recommendation.

The GPMIS Division remained active with medical societies:

- Sangeeta Senapati, MD, received approval for a surgical fellowship from AAGL. Richard Cockrum, a PGY-4 at University of Chicago, matched as the inaugural fellow.
- Dr. Senapati has also been selected as Treasurer for the AAGL Fellowship Board, a four-year term which will lead to her serving as President.
- Dr. Tu served as faculty for the IPPS Cadaveric Anatomy course.
Holly Milojevic had a history of endometriosis and pelvic pain and had been treated with surgery years before she started struggling with more severe pain and infertility issues. She sought treatment for the pain, which was increasingly unbearable, while also undergoing fertility treatment, none of which was successful.

“Nobody gave me a real reason for the way I was feeling. I knew the pain was different than what I had before, and I felt like I was just written off,” said Milojevic.

After doing plenty of her own research, Milojevic finally found NorthShore Director of Gynecology Frank Tu, MD, MPH, who diagnosed her with an unusual variant of uterine disease, an adenomyoma. Unlike fibroids, these inflammatory masses arise from the uterine lining itself and often are much more densely scarred into the uterine wall. Dr. Tu performed a procedure to remove the mass and carefully rebuilt her uterus with the hope that it would allow her to have a successful pregnancy.

“I could tell he really wanted to help. He understood and respected my goals. He was the first physician I felt comfortable even considering the surgery with,” said Milojevic.

Dr. Tu thoroughly explained the surgical procedure, and they discussed at length the challenges associated with preserving her uterine function.

“We were confident going into the procedure. We had a clear picture from her preoperative imaging and an excellent surgical team available. I knew she had done her homework and was realistic about the possible outcomes,” said Dr. Tu.

The procedure was an immediate success in terms of relieving her pain. “I felt relief right after surgery,” said Milojevic. “Before I had been so acutely aware every minute of every day that I had a uterus, and now the pain was gone.”

The next victory came when Milojevic got pregnant, and the biggest success of all happened when she gave birth to her son Luka in May 2018. “He was a near-term preemie, but he’s super healthy now. We are both healthy,” said Milojevic, who was also very happy with the care she received from NorthShore’s Maternal-Fetal Medicine team throughout her pregnancy.

“I am very grateful for Dr. Tu. His compassion and positive attitude really made a difference. He exhibits all the qualities a woman would want in a physician and all the qualities NorthShore would want in one of their doctors. It’s amazing after all I went through, this was a dream come true,” said Milojevic.

Dr. Tu’s team is conducting groundbreaking research aimed at developing ways of characterizing adenomyosis with advanced imaging and studying its effect on uterine physiology, function and pain so that personalized treatment can be developed as it was for Milojevic.
Advanced Surgical Protocol Speeds Recovery

As soon as Debra Koss saw the look on her gynecologist’s face during a routine annual exam, she knew something was wrong.

An ultrasound the next day revealed enlarged ovaries, and Koss was referred to gynecologic oncology expert Gustavo Rodriguez, MD, who immediately made her feel that she was in good hands.

“He just had this wonderful combination of professionalism and compassion,” said Koss. After examining Koss, Dr. Rodriguez had promising news, telling Koss and her husband Tom that she might not even have cancer, a diagnosis she had been dreading.

Dr. Rodriguez, the Matthews Family Chair of Gynecologic Oncology Research, said the ovarian masses felt hard on examination and more like fibroids than a typical cancer. Still, Koss needed surgery to remove the growths and definitely rule out cancer.

Koss had a hysterectomy with Dr. Rodriguez at Evanston Hospital the day before Thanksgiving, 2018, and was relieved to learn there was no cancer. Her surgery went smoothly—and thanks to a new Enhanced Recovery After Surgery (ERAS) protocol, her recovery was quick and relatively painless.

“I have nothing but positive things to say about the whole process,” said Koss, who went home before noon the day after her surgery. “As a testament to how well I felt, I remember waking up the next morning and checking to see what time breakfast started and ordering blueberry pancakes. It was wonderful!”

ERAS includes thorough patient education, better fluid management to avoid dehydration, and improved techniques for pain management including a TAP (transversus abdominis plane) block, an injectable ultrasound guided anesthetic given before the operation begins. ERAS outcomes include more rapid recovery, lower rates of complications and a substantial reduction in use of postoperative opioids.

“Prior to our introduction of ERAS, patients like Debra would have been in the hospital for several days. Now, the morning after surgery they wake up and look almost like they never had surgery. This is so much better than the old way,” said Dr. Rodriguez.

“This really reflects NorthShore’s multidisciplinary approach to care as all members of our care team, especially nursing, were critical to the ERAS implementation and the amazing patient outcomes,” added Dr. Rodriguez.

“I’m elated. I feel like I have a new lease on life,” said Koss.

Omar Nelson, PhD, joined NorthShore in June 2018 as a research scientist. Dr. Nelson completed his PhD in neuroscience at University of Texas Southwestern Medical Center at Dallas. He trained at the University of Miami Miller School of Medicine in the Sylvester Comprehensive Cancer Center where he focused on head/neck, breast and ovarian cancer. His emphasis is on oncological diseases of the female gynecological tract. Dr. Nelson has a lead role in facilitating experiments in Dr. Rodriguez’s laboratory. He received a NorthShore Auxiliary Pilot Award to evaluate the “Effect of Progestins and Vitamin D on Inflammatory and Oxidative Chemopreventive Endpoints in the Fallopian Tube.”

Dr. Omar Nelson (left) joined Dr. Gustavo Rodriguez’s team in 2018, leading research related to prevention, early detection and treatment of ovarian, uterine and other women’s cancers.
2018 DIVISION HIGHLIGHTS

Division of Gynecologic Oncology

The Division of Gynecologic Oncology maintains a comprehensive clinical and research program aimed at prevention, early detection, improved treatment and survivorship for ovarian, uterine and other women's cancers. Led by Gustavo Rodriguez, MD, the Division brings together a collaborative team that employs a multidisciplinary approach to treating women with malignant or premalignant conditions of the gynecologic tract. The Division’s mission is to provide comprehensive and compassionate care for our patients while performing basic and clinical research that will make a significant impact in our community and beyond.

Patients benefit from the collaborative care and the combined experience of gynecological oncologists, geneticists, radiologists, radiation oncologists, pathologists and critical support services, including psychosocial oncology, integrative medicine and nutrition. We leverage the latest technology and innovative techniques with robotic surgery and other minimally invasive procedures.

2018 Highlights

Our palliative care initiatives are being spearheaded by Elena Moore, MD, in collaboration with the NorthShore palliative care and hospice teams. This has included both clinical initiatives as well as research as we seek to mitigate the side effects/toxicity and symptoms associated with gynecologic cancer and its treatment. Dr. Moore is the principal investigator of a study evaluating the impact on quality of life and survival of early involvement of the palliative care team in the care of women with gynecologic cancers.

Mary Tilley Jenkins Vogel, MD, has fully integrated clinical services throughout the NorthShore system, but with a special focus on expanding access and care at NorthShore Glenbrook Hospital. She has initiated clinical studies with a focus on pharmacologic prevention of endometrial cancer and is overseeing quality improvement initiatives for the Division.

An array of important clinical trials ensures that our patients have access to the latest treatment options for women's cancers. These include industry-sponsored clinical trials, as well as projects with the National Cancer Institute-funded NRG, formed as an amalgamation of the NSABP, RTOG and GOG). Important clinical trials open this year have included trials evaluating the new classes of PARP inhibitors and immunotherapeutic agents for women with recurrent ovarian cancer.

A major clinical and research focus of the Division is the area of cancer prevention. Dr. Rodriguez and his team have made important discoveries that are opening the door toward the pharmacologic prevention of ovarian and uterine cancer. A five-year NIH R01 Grant was awarded to the program this past year to fund research aimed at developing an effective pharmacologic approach to prevent ovarian and fallopian tube cancer.

Building on the significant success of Dr. Rodriguez’s research, the Clinical Gynecologic Cancer Prevention Program at NorthShore includes risk assessment and evaluation, followed by individualized pharmacologic and surgical strategies for cancer preventive care. This work is generously supported by Bears Care, the charitable beneficiary of the Chicago Bears, the Auxiliary of NorthShore University HealthSystem, Sandy and Ron Schutz, and other grateful patients. 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 cancer prevention and treatment.
Division of Urogynecology and Reconstructive Surgery

The Division of Urogynecology and Reconstructive Surgery is dedicated to improving the care of women with a variety of pelvic floor abnormalities including bladder and bowel incontinence, pelvic organ prolapse, lower urinary tract pain and infection disorders, voiding dysfunction, and defecatory dysfunction.

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-approved three-year Female Pelvic Medicine and Reconstructive Surgery (FPMRS) fellowship.

The physicians and clinical staff are recognized nationally and internationally as a premier resource for clinical care, surgical expertise, research, informatics and quality outcomes tracking in urogynecology.

2018 Highlights

The Division was delighted to welcome Sonia Dutta, MD, who joined NorthShore immediately after completing her three-year fellowship in Female Pelvic Medicine and Reconstructive Surgery (FPMRS) at University of California Irvine. Prior to her subspecialty fellowship, Dr. Dutta completed her undergraduate education at Columbia University, medical school at New York University School of Medicine, and residency at Johns Hopkins University. Dr. Dutta also completed a research fellowship at Mount Sinai School of Medicine.

In addition to practicing the full scope of our specialty, Dr. Dutta brings special expertise in laparoscopic reconstructive surgery for pelvic organ prolapse. She has practice locations in Skokie, Highland Park and Glenbrook. Dr. Dutta is an accomplished researcher and will be launching and overseeing several innovative projects heading into 2019.

Peter Sand, MD, as Director of Research for the Division, is principal investigator for several new and ongoing studies in the Division, including one examining an implantable radiofrequency stimulator “coin” for the treatment of overactive bladder and urge urinary incontinence. Patients are currently being enrolled for this “e-coin” procedure, which is performed in the office through a small incision near the ankle, taking approximately 20–30 minutes.

Dr. Goldberg and Svjetlana Lozo, MD, MPH, led a volunteer surgical mission to Honduras, hosted by One World Surgery on the site of Nuestros Pequeños Hermanos (NPH), a facility and foundation dedicated to raising disadvantaged and orphaned youth. The surgeons performed nearly 20 women’s health operations in addition to running outpatient clinics.

Dr. Goldberg co-chaired the 2018 Surgical Master Class for the American Urogynecology Society (AUGS) in Tampa, Florida. Additionally, he was an invited surgical instructor and lecturer to locations in 2018 that included Bogota, Colombia; Cali, Colombia; Barranquilla, Colombia; Cartagena, Colombia; and São Paulo, Brazil.

Division of Reproductive Endocrinology and Infertility

NorthShore has a number of physicians who specialize in reproductive endocrinology and infertility (REI). One of the most commonly encountered problems in obstetrics and gynecology is infertility, which affects approximately 15 percent of the population. Our subspecialists offer a vast array of both basic and high-tech services to meet the needs of patients with infertility.

2018 Highlights

The Division has opened a subspecialty resident clinic in reproductive endocrinology and infertility which is staffed by members of the Division to enrich the education of Obstetrics and Gynecology residents and medical students, and to provide patients with access to reproductive medicine services.

John Rinehart, MD, PhD, JD; Allison Rodgers, MD; Shweta Nayak, MD; Jennifer Hirshfeld-Cytron, MD; and Sigal Klipstein, MD, serve as medical student and resident lecturers and mentor students in the office setting.

Dr. Hirshfeld-Cytron was instrumental in helping pass an Illinois law (IL Public Act 100-1102, House Bill 2617) to provide coverage for fertility preservation for patients with a diagnosis of cancer.

Dr. Hirshfeld-Cytron is the Vice President for the Kevin J. Lederer LIFE Foundation, which aims to promote health and alleviate the mental and physical distress of individuals and couples diagnosed with infertility through education and financial assistance. Elizabeth Puscheck, MD, chaired the American Institute of Ultrasound Medicine committee to revise the national ultrasound guidelines for reproductive medicine.

Dr. Klipstein participated as a member of the American Board of Obstetrics and Gynecology Summit on Professionalism Task Force, which took place in Washington, D.C.

Dr. Rodgers serves as the “Ask Dr. Rodgers” medical expert on the Beat Infertility website and their podcasts supporting women facing infertility.

Dr. Rinehart was awarded a master’s in predictive analytics at Northwestern University. His master’s thesis was titled “Predicting the Number of Embryos to Transfer in IVF Using Ensemble Machine Learning.”
Restoring Quality of Life

Like many women plagued with the pain and embarrassment of bladder and bowel dysfunction, 61-year-old Jeanette Krause got to the point where things were almost unbearable before seeking help. Pelvic floor injuries are exceptionally common in women, especially those who have given birth to two or more children, yet they remain vastly under-diagnosed.

When Krause decided she could no longer suffer in silence, she started looking for help and found Roger Goldberg, MD, MPH, and his team at NorthShore’s new bowel dysfunction clinic. Advanced technology and Dr. Goldberg’s expertise came together providing Krause life-changing relief.

“So many women are suffering and thinking there’s nothing that can be done, but we now have an incredible tool box with new ways of diagnosing and treating these debilitating conditions,” said Dr. Goldberg. “For example, we have sophisticated 3D pelvic floor ultrasound that provides comprehensive images of the muscles that make up the pelvic floor.”

“They took the time to explain everything to me, and they showed me exactly how the muscles were supposed to be working and where the problems were. It really took the anxiety away,” said Krause, who spent just one night in the hospital and returned to work two weeks after surgery had repaired her pelvic floor.

Her surgery was so successful that Krause is not only back to her strenuous job as a full-time nurse, she was also able to resume her full slate of activities including weightlifting sessions at the gym, long bike rides and playing with her grandchildren.

“Our Center is developing minimally invasive approaches for big problems,” said Dr. Goldberg. “The goal of this kind of surgery is to restore quality of life. We want women to know that times have changed and there are solutions for what’s been the last frontier—bowel dysfunction.”

The new Women’s Health Questionnaire developed by Dr. Goldberg and his team helps to identify other women suffering from bladder and bowel dysfunction. By answering questions online and in the privacy of their own home, they can with the push of a button end up with a referral to the Center.

“One thing that the diver can do to help all women affected by bowel symptoms is to test all the women who have the symptoms,” said Krause. “This is a wonderful opportunity for women to test themselves and get help.”

Jeanette Krause underwent life-changing surgery to repair her pelvic floor, returning her to full activity, including aggressive workouts.

NorthShore Women’s Bowel Clinic

The NorthShore Women’s Health Questionnaire was developed in 2017 by Roger Goldberg, MD, MPH, and the Division of Urogynecology. In 2018, the questionnaire was broadly launched throughout NorthShore Medical Group. This NorthShoreConnect-based questionnaire is administered to all female patients receiving primary care in the NorthShore Medical Group and was designed to identify symptoms that can severely impact overall health and quality of life and efficiently direct patients to high-quality care. To date, the questionnaire has been distributed to over 60,000 patients via NorthShoreConnect. Nearly one in five women have identified a concern that had previously gone undiscussed. High among these were issues of fecal incontinence and other complex bowel symptoms.

The NorthShore Women’s Bowel Clinic is devoted to women with obstructive bowel symptoms and bowel control problems. These issues are common in the adult female population affecting approximately 15 percent of women in the United States. Until recently, there were few effective solutions. The NorthShore Women’s Bowel Clinic uses 3D pelvic floor ultrasound to identify rectal support defects that can be responsible for chronic bowel symptoms such as obstructed defecation syndrome (ODS). Identifying these defects is translating into new procedures and surgical remedies. This clinic was pioneered by Ghazaleh Rostami Nia, MD, senior FPMRS fellow who entered her training at NorthShore as a published expert in pelvic floor ultrasound imaging. Dr. Goldberg and Dr. Rostami Nia are leading a clinical trial of a novel minimally invasive method to repair the pelvic floor support defects responsible for obstructive bowel symptoms in the female population. This operation is performed without any external skin incisions in approximately 30 minutes, and its effectiveness is being assessed at this time. The Division’s focus on this women’s health problem is rapidly expanding in promising ways, both in the area of diagnosis and treatment.

The Women’s Health Questionnaire is available at northshore.org/agcq
Evanston Perinatal Center

Scott MacGregor, DO  Bill MacKendrick, MD  Myra Sabini, BSN, RNC-OB, C-EFM
Co-Director  Co-Director  Perinatal Center Coordinator

The Evanston Perinatal Center is one of the three Level III centers in the Northwestern Perinatal Network, which is one of 10 regional perinatal centers in Illinois and is supported by federal and state grants. This regionalized perinatal system was created to match the level of maternal and neonatal acuity with appropriate personnel and resources in all regions of Illinois.

Currently our perinatal program serves eight referral hospitals in Chicago and the north and west suburbs by promoting professional collaboration, consultation, education and communication to improve the health of pregnant women and their babies.

2018 Highlights

The Evanston Perinatal Center:

- Collaborates with referring hospitals for high-risk management and acceptance of maternal and neonatal transports. In 2018, Evanston Hospital accepted 150 maternal and 56 neonatal transports. The referring hospitals support more than 15,500 delivered women annually, which is the largest percentage of assigned 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 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 Fetal Monitoring, Neonatal Stabilization, Hemorrhage and Hypertension Management. The Grainger Center for Simulation and Innovation offers additional multidisciplinary and collaborative education.

- Supports the Illinois Perinatal Quality Collaborative (ILPQC) by assisting with conference planning, communication to referring hospitals and overall support from the Perinatal Center Coordinator. These initiatives are rolled out through the perinatal regionalized program.

- 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; caesarian section rates; delivery volumes; low birth rates; and maternal and neonatal transport volumes.

- Is responsible for overseeing the network hospitals for 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 hospital’s resources and services are reviewed by the Perinatal Center and IDPH to maintain the level of care designation as determined by the Perinatal 640 Rule.

MFM physicians, Neonatology and the Perinatal Center Coordinator regularly attend the hospital’s quarterly case review meetings to provide a variety of educational opportunities. These meetings include education and discussion of evidenced-based research.

Maternal and Neonatal Transport to Evanston Hospital

Fiscal Year Oct. 1, 2017, to Sept. 30, 2018

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Maternal Transports</th>
<th>Neonatal Transports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condell Libertyville</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>Good Shepherd Barrington</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Highland Park</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Lake Forest</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Physician Office</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>St. Francis Chicago</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Swedish Covenant Chicago</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Vista East Waukegan</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

Delivery Volume by Hospital Within the Perinatal Network

Fiscal Year Oct. 1, 2017, to Sept. 30, 2018

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Maternal Transports</th>
<th>Neonatal Transports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condell Libertyville</td>
<td>1,258</td>
<td>3,534</td>
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<tr>
<td>Good Shepherd Barrington</td>
<td>1,123</td>
<td>1,702</td>
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<td>Highland Park</td>
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</tr>
<tr>
<td>Lake Forest</td>
<td>1,702</td>
<td>2,440</td>
</tr>
<tr>
<td>Northwest Community</td>
<td>499</td>
<td>2,306</td>
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<tr>
<td>Arlington Heights</td>
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<tr>
<td>St. Francis Chicago</td>
<td>499</td>
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<tr>
<td>Swedish Covenant Chicago</td>
<td>1,385</td>
<td></td>
</tr>
<tr>
<td>Vista East Waukegan</td>
<td>1,385</td>
<td></td>
</tr>
</tbody>
</table>
Perinatal Depression Program

Jo Kim, PhD
Program Director and Clinical Assistant Professor

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. 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.

2018 Highlights

9,381 depression and anxiety screens were administered.
582 depression screens triggered a clinical response for indications of women at risk, and 204 (35 percent) of those endorsed thoughts of self-harm.
994 calls to the MOMS Perinatal Depression Hotline.
22 callers referred for emergency services based on acuity.
Reproductive Psychiatrist Dylan Kathol, MD, joined the team, seeing patients through his Medical Group outpatient practice as well as through the No Mother Left Behind partnership with the North Shore Community Health Center.
Groundwork was laid for a clinical pilot of an innovative new means of depression screening using computerized adaptive testing administered via patients’ smartphones.

Educational Achievements

Didactic lectures on perinatal mood disorders were presented to University of Chicago Pritzker School of Medicine medical students.
Opportunities for perinatal mood disorders research participation were made available to University of Chicago Pritzker School of Medicine residents.
Grand Rounds presentations covered current developments in the field and upcoming research initiatives.

“Without this support, I would not have gotten through this. I am really grateful and can’t thank you enough for connecting me to the right people to get the help I need.”
— New mother with postpartum anxiety

Research Achievements

Together with collaborators at the University of Oregon, program researchers received an SBIR Phase II award from the National Institute of Mental Health to test a smartphone-based app designed to treat perinatal depression.

In collaboration with University of Chicago researcher David Besier, MD, PDP, became a research site for an NIH-funded Institute of Translational Medicine study to test a computer application (“chatbot”) that conducts a text conversation that encourages mood self-regulation.

Research collaboration on the Genetic Explorations of Maternal Mood (GEMM) study continued with Pablo Gejman, MD, and Alan Sanders, MD (NorthShore; Psychiatric Genetics).

Community Benefit and Philanthropy

Program Director Jo Kim, PhD, served on external committees including:
- Illinois Maternal Mortality Special Review Committee for Violent Deaths (committee member)
- Postpartum Support International (Certification Exam Development Committee Subject Matter Expert)
- Beyond the Baby Blues (Clinical Advisor)

Program Coordinator Laura La Porte, LCSW, served on external committees including:
- Postpartum Support International—Illinois (Social Services Committee Lead)
- Beyond the Baby Blues (Perinatal Loss Group Strategic Planning Committee)

For the eighth year, the Illinois Department of Human Services (DHS) provided additional funding to NorthShore’s 24/7 Perinatal Depression Hotline (866-364-MOMS), which enables the hotline to provide immediate clinical support to women and families throughout Illinois.

The Satter Foundation continued its generous three-year funding grant to support mobile health initiatives for both detection and treatment of perinatal mood disorders.
Perinatal Family Support Center

The Perinatal Family Support Center (PFSC) provides a wide array of clinical services for patients and their families receiving obstetrical and pediatric care at NorthShore.

2018 Highlights

1,462 families received services from PFSC in fiscal year 2018.

Two five-week sessions of the teen education program (The ABCs of Pregnancy and Parenting) provided anticipatory guidance and developmentally appropriate education to pregnant teens and their support person with an ongoing goal of fostering healthy outcomes. Seventeen of the 48 pregnant teens referred to PFSC elected to participate in this free program.

96 antenatal consults with Neonatology were performed in anticipation of support, guidance and resource needs of obstetric patients whose unborn children were diagnosed with significant fetal anomalies.

PFSC implemented a specially designed electronic note-writing platform within Epic unique to the different types of assessments and treatment planning used for every patient referred to our services. Benefits of this include efficiency and effectiveness in communication with medical team members to improve patient care, as well as data collection to highlight patterns and trends related to patient need.

Community Benefit and Philanthropy

PFSC had representation at The National Association of Perinatal Social Workers (NAPSW) Conference in Long Beach, California, in March: “Shining the Light on Perinatal Social Work Practice.”

Staff are active in the National Association of Perinatal Social Workers, and two are serving on the annual conference planning committee for 2020 to be held in Chicago.

PFSC is involved in two initiatives with the Illinois Perinatal Quality Collaborative: Mother and Newborns Affected by Opioid Use Disorder and Long-Acting Reversible Contraception.

PFSC is able to expand its impact for patients and families through grant funding and the generous gifts of community partners and donors. In fiscal year 2018:

- 435 families or patients were provided with needs-based support with the assistance of the NorthShore Associate Board Emergency Family Fund.
- For the tenth consecutive year, PFSC partnered with the Junior League of Evanston-North Shore enabling an education and advocacy “Baby Shower” for 15 low-income pregnant women and their guests in April. In addition to a delicious meal and educational talks by various presenters, patients received new items useful in caring for their baby.
- The Auxiliary of NorthShore University HealthSystem awarded PFSC a small project grant to enhance family-centered care in the ISCU using current, evidence-based resources that reflect an understanding of family grief and adjustment specific to the ISCU experience. These comprehensive resources will be available to approximately 400 ISCU families each year.
- PFSC received funding to distribute books appropriate for both adults and children related to perinatal grief and loss and provided beautiful, hand-crafted memory boxes in which patients can place mementos related to their perinatal loss and facilitate a weekly support group for families with a baby in the ISCU.

In 2018, PFSC distributed two dozen Comfort Cubs to patients and their families who have experienced a perinatal loss or placed a baby for adoption, or who have had a premature infant admitted to the Infant Special Care Unit. Shown above is donor Briana Quinn, left, with Janet Winslow, PFSC Supervisor.

Due to deep touch pressure, holding a Comfort Cub triggers the brain to release the neurotransmitters dopamine, serotonin and oxytocin, which causes the body to relax and feel comforted. The Comfort Cub has been scientifically proven to decrease heaviness in the chest and aching in the arms, as well as other physical manifestations of a loss.
Medical education is a critical facet of the Department’s mission. University of Chicago Pritzker School of Medicine trainees place NorthShore at the top of their educational experiences, and our faculty are regularly recognized for their dedication and teaching skills.

Undergraduate Program

H. Jacob Saleh, MD  
Site Director and Clinical Associate Professor

Michael Hughey, MD  
Associate Site Director and Senior Clinician Educator  
Undergraduate Medical Education

2018 Highlights

Simulation training includes student orientation and skills training in the Simulation Lab and culminates in the Objective Structured Clinical Exam (OSCE). This training anchors the M3 curriculum and is provided under the guidance of Michael Hughey, MD, Associate Site Director for Undergraduate Medical Education.

Student learning opportunities have been increased with the introduction of new simulation training modules, both online and at the Grainger Center for Simulation and Innovation. These simulations typically involve either introducing the students to new clinical skills or providing them experience with uncommon, but important clinical scenarios, all in a controlled, safe learning environment.

New simulation topics for 2018 included postpartum hemorrhage, ectopic pregnancy and patient sign-outs. New pelvic manikins, purchased by NorthShore, have enhanced the student training in their physical examination skills.

Dr. Saleh’s Forceps Delivery Trainer has caught the attention of the biomedical design team at Northwestern University’s McCormick School of Engineering. Aided by the use of 3D imaging and capacitance force sensors, the standard pelvic training model has been transformed into an interactive teaching tool.

With real-time haptic and visual feedback, learners can better understand the pelvic axis and forces required to properly and safely perform operative vaginal deliveries. The team of engineering students (Tara Cornwell, Deanna Hendrickson, Puck Pentenga and Eugene Yakobovich, Course BME 390) presented their progress at the Northwestern University Tech Center this fall and will complete the model in Spring 2019.

Standardized patients (trained patient models used to simulate patients) are used during student orientation, and the Department is looking to expand their use for training, based on the favorable student response.

Drs. Michael Hughey, H. Jacob Saleh, and Sabrina Holmquist, MD, MPH, (University of Chicago Obstetrics and Gynecology Clerkship Director) continue their involvement in the Association of Professors in Gynecology and Obstetrics/Council on Resident Education in Obstetrics and Gynecology (APGO/CREOG). Ongoing initiatives for presentation include the use of case-based learning (CBL) to replace standard PowerPoint lectures. While the learning objectives for the students are essentially the same as in the past, the methods used to achieve those objectives are constantly changing. This dynamic is influenced by educational research findings, actively solicited student/faculty feedback and changing availability of resources. Much like the OSCE, CBL is an opportunity for students to implement what they have learned in the clinical setting.

The 2018 students voted for the Holden K. Farrar, Jr. Teacher and Lecturer of the Year, and the winners were Dr. H. Jacob Saleh and Dr. Barrett Robinson, respectively.

Graduate Program

Sangeeta Senapati, MD, MS  
Site Director and Clinical Associate Professor

Barrett Robinson, MD, MPH  
Associate Site Director and Clinical Assistant Professor

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 Adrianne Dade, MD, Obstetrics and Gynecology Residency Director at University of Chicago Pritzker School of Medicine, Pritzker and NorthShore provide the breadth and depth of graduate medical education at both campuses.

NorthShore also hosts residents from Presence Saint Francis Hospital Obstetrics and Gynecology Residency Training Program, which allows for second- and third-year residents 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 North Shore Community Health Center. This experience gives residents the opportunity to learn outpatient management within the context of a “group practice.”

2018 Highlights

Members of our OB/GYN faculty are routinely recognized for their remarkable teaching abilities. NorthShore physician Marion Jelcz, MD, was acknowledged by the Obstetrics and Gynecology residents for his talent and dedication to graduate medical education as the recipient of the Golden Apple Award as well as the APGO/CREOG Teaching Excellence Award.

Carolyn Botros, MD, was recognized for outstanding teaching of the residents by a fellow.

The residents received several important accolades this year for their teaching of medical students. Golden Apple Awards were received by Robert Scholz, MD (Class of 2018), Melissa Javellana, MD (Class of 2019), Taylor Stanton, MD (Class of 2019), Caroline Kuhn, MD (Class of 2020), and Angela Rugino, MD (Class of 2021).
Graduate Program continued

• Ian Grable, MD, MPH, Clinical Associate 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 at NorthShore.

His educational program provided intensive training for the residents in such areas as complex deliveries, ultrasound skills, team building, obstetric emergencies, 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 Grainger Center for Simulation and Innovation with a focus on advanced minimally invasive surgical skills and techniques using a range of both low- and high-fidelity models in the safety of the simulated learning environment.

Dr. Richard Silver in NorthShore’s Grainger Center for Simulation and Innovation, a destination for advanced medical education and simulation training.

The resident research projects are representative of the extensive scope of research at both NorthShore and the University of Chicago and the combined faculty commitment to mentor learners in their academic endeavors. Our residents published and presented their research work at numerous national meetings:

Juliana Taney, MD, published her work on placental abruption with delayed fetal compromise in maternal acetaminophen toxicity in Obstetrics and Gynecology.

Rachel Neal, MD, worked with a group at UT Southwestern looking at the benefits of intensive care unit monitoring for low-grade blunt hepatic injury, and the results were published in The American Journal of Surgery.

Zachary Dobbin, MD, published on molecular response to neoadjuvant chemotherapy in high-grade serous ovarian carcinoma in Molecular Cancer Research. With that same team from the University of Alabama, work was published on targeting RNA polymerase I in both chemosensitive and chemoresistant populations in epithelial ovarian cancer in the journal Clinical Cancer Research.

Caroline Kuhn, MD, has been researching the relationship between fMRI events resembling sustained uterine contractions and spontaneous menstrual cramping under the direction of Kevin Hellman, PhD**. This work was published in American Journal of Obstetrics and Gynecology.

Richard Cockrum, MD, and Kevin Hellman, PhD**, presented at the AAGL annual meeting on development of a method to characterize vascular contributions to cramping in dysmenorrhea. He also worked with Maryam Siddiqui, MD, and Sarosh Rana, MD*, MPH, on determining the association of latent labor with classical cesarean delivery, which was presented at the American Congress of Obstetrics and Gynecology (ACOG) annual meeting.

Melissa Javellana, MD, presented her work on the heterogeneity of operative approach in long-term survivors of high-grade serous carcinoma at the Society of Gynecologic Oncologists annual meeting. This project was completed in collaboration with Ernst Lengyel, MD*, PhD, Diane Yamada, MD*, and Rebecca Brooks, MD*.

Sirina Keesara, MD, during her elective rotation, worked on identifying barriers to postpartum contraception and the difference among women based on parity and future fertility desires. This was presented at the ACOG annual meeting and then published in Culture, Health & Sexuality.

Katharina Laus, MD, teamed with Kevin Hellman, PhD**, and Frank Tu, MD**, to investigate noninvasive objective measurements of uterine perfusion/oxygenation and the effects of Naprosyn, which was presented at the International Pelvic Pain Society annual meeting.

Elizabeth Banks, MD, and Anita Blanchard, MD*, presented departmental initiatives to decrease clinician burnout and improve resilience at the Association of Professors of Gynecology and Obstetrics (APGO)/Council on Resident Education in Obstetrics and Gynecology (CREOG) annual meeting as well as the Group on Resident Affairs spring meeting. Dr. Banks also worked with the Gynecologic Pain and Minimally Invasive Surgery Division on a video demonstrating ultrasound guided peripheral nerve blocks for patients with chronic vulvar pain, which was presented at the AAGL annual meeting.

Robert Scholz, MD, under the guidance of Emmet Hirsch, MD**, presented on the efficacy of a multifaceted surgical site infection prevention bundle for cesarean deliveries at the Central Association of Obstetrics and Gynecology annual meeting. He also worked with Maryam Siddiqui, MD*, on a project evaluating anemia in pregnancy and risk of blood transfusion, which was presented at the ACOG annual meeting.

Katharina Laus, MD, and Melissa Javellana, MD, presented work investigating Cardiovascular Risk Factors and Their Influence on Staging of Endometrial Cancers at the Western Association of Gynecologic Oncologists (WAGO) annual meeting. They completed this project in collaboration with Jerinda Ross, MD, Chuanhong Liao, MS, Iman Alsaden, MD, Diane Yamada, MD*, and Nita Lee, MD*.

* University of Chicago Pritzker School of Medicine faculty
** NorthShore University HealthSystem faculty
Fellowship Programs

Division of Female Pelvic Medicine and Reconstructive Surgery Fellowship

Roger Goldberg, MD, MPH
Program Director and Clinical Assistant Professor
Female Pelvic Medicine and Reconstructive Surgery

Sonia Dutta, MD
Associate Program Director
Female Pelvic Medicine and Reconstructive Surgery

The Division of Female Pelvic Medicine and Reconstructive Surgery (FPMRS) supports advanced training for three fellowship positions certified by the Accreditation Council for Graduate Medical Education (ACGME). Fellows develop clinical expertise in the medical and surgical treatment of urinary incontinence, pelvic organ prolapse, and pelvic health conditions. Training is integrated with rotations with the FPMRS faculty at the University of Chicago, as well as with NorthShore faculty in urology, colorectal surgery, and minimally invasive gynecologic surgery.

2018 Highlights

Our 2018 graduate, Carolyn Botros, DO, joined the FPMRS Division at the Lehigh Valley Health Network.

Svjetlana Lozo, MD, MPH, our third-year fellow, successfully completed the NorthShore Quality and Patient Safety fellowship, with a project focused on preoperative penicillin allergy testing and antibiotic stewardship. True to her commitment to a variety of interests, Dr. Lozo presented her work on the cognitive impact of anticholinergic overactive bladder medications, the role of collagen matrices in prolapse, and the development of gynecologic training curriculum at national and international conferences.

Ghazaleh Rostami Nia, MD, our second-year fellow, continues her work on three-dimensional pelvic floor ultrasound for the assessment of obstructive defecation. She is developing standards for the ultrasonographic measurement of rectal motility. Translation from evaluation with imaging to surgical management of obstructive defecation is underway.

Joseph Pincus, MD, our first-year fellow, joined us after completing his OB/GYN residency at the Albert Einstein College of Medicine. Dr. Pincus is researching the potential relationship between pharmacogenetics and the efficacy of overactive bladder medications.

Nani Phillips, MD, recently matched to our fellowship, and she will join us in July after completing her OB/GYN residency at the Albany Medical College.

Division of Gynecologic Oncology Fellowship

Elena Moore, MD
Associate Program Director and Clinical Assistant Professor
Gynecologic Oncology

The Division of Gynecologic Oncology is an approved, integrated fellowship training program with the University of Chicago (Nita Lee, MD, MPH Program Director). The fellowship program was accredited by the Accreditation Council for Graduate Medical Education (ACGME). The program consists of one basic science research year and two clinical years divided between the NorthShore University HealthSystem and University of Chicago campuses. The clinical experience includes management of preinvasive and complex invasive cancers of the gynecological tract under the supervision of 10 attending physicians, with both surgical and medical oncology as central components of the curriculum.

2018 Highlights

Jerliinda Ross, MD, graduated from our fellowship this year and joined Virtua Gynecologic Oncology specialists in Moorestown, New Jersey, an affiliate of Penn Medicine. Dr. Ross was invited to present her abstract on “Endometrial cancer survivors’ access to recommended self-care resources to target obesity in a high poverty urban community” at the Society of Gynecologic Oncology 2017 Annual Meeting on Women’s Cancer. This will be the subject of her thesis for oral board exams.

Claire Hoppenot, MD, is now entering the last clinical year of fellowship after completing a medical ethics fellowship through the MacLean Center.

Isabel Lazo, MD, is entering her first of two clinical years of fellowship after completing a research year with Ernst Lengyel, MD, PhD, Professor of Obstetrics and Gynecology, in his ovarian cancer research laboratory. Dr. Lazo completed a fellowship in hospice and palliative care medicine at University of California, Davis prior to her recruitment to our fellowship.

Raanan Alter, MD, is currently in his first year of fellowship doing research with Dr. Akash Patnaik studying the T-cell tumor microenvironment in endometrial cancers and how this changes in response to immune therapies.

Melissa Javellana, MD, is our newest recruit having matched to our fellowship program for 2019. Dr. Javellana is currently completing her residency at the University of Illinois College of Medicine.
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 four of its fellows. During the three-year program, the fellows benefit from dividing their time and activities equally between NorthShore and the University of Chicago under the supervision and mentorship of 17 board-certified faculty members. They spend two years in clinical rotations where they refine their ability to manage complex pregnancies and develop proficiency and expertise in ultrasound and antenatal diagnosis, including procedural skills such as amniocentesis and chorionic villus sampling. Our fellows also devote at least one year to clinical and/or basic science research activity with faculty mentorship.

In addition to the core curriculum, our fellows have numerous unique opportunities to develop an area of interest within the field of MFM, including participation in an Ethics fellowship, a Quality and Safety fellowship, a medical education scholar program, and a graduate course in biostatistics, epidemiology and health services research. Fellows also attend the NICHD Young Investigators Conference, attend a Maternal-Fetal Medicine Units Network steering meeting and participate in the Excellence in Clinical Research Course.

2018 Highlights

Patrick Schneider, MD, successfully defended his thesis “Improving the timely delivery of antihypertensive medication for severe maternal hypertension in pregnancy and postpartum” under the mentorship of Ann Borders, MD, of the NorthShore MFM Division. During his fellowship, Dr. Schneider completed an additional Quality and Safety fellowship and presented his research at the national Society for Maternal-Fetal Medicine (SMFM) meeting. Dr. Schneider accepted a faculty position at The Ohio State University where he will have an opportunity to continue his quality work with the Ohio Perinatal Quality Collaborative.

Lena Braginsky, MD, is our third-year fellow who took on the challenging task of conducting a randomized controlled trial comparing the use of tissue adhesive versus butterfly strips for cesarean wound closure to potentially reduce infection and wound disruption. She recruited more than 500 patients from NorthShore and the University of Chicago. She presented her results in an oral presentation at the 2019 SMFM meeting and was awarded Best Oral Concurrent Session 8. Her mentor is Beth Plunkett, MD, MPH, of the NorthShore MFM Division.

Javier Rodriguez Kovacs, MD, is our second-year fellow and joined us following completion of his residency at Wayne State University. He is working with Sarosh Rana, MD, MPH, section chief of MFM at the University of Chicago, on his thesis entitled “Long-Term Cardiac Effects of Hypertension During Pregnancy” as well as taking a lead role in implementing the Illinois Perinatal Quality Collaborative (ILPQC) Mothers and Newborns Affected by Opioids initiative at the University of Chicago. Dr. Rodriguez Kovacs also attained certification in fetal echocardiography during his second year of fellowship.

Samantha de los Reyes, MD, is one of our first-year fellows and joined us following completion of her residency at Johns Hopkins Medical School. She is joined by Caitlin MacGregor, MD, as our other first-year fellow who completed her residency at Brown University.

We had another successful match this year and look forward to having Sunitha Suresh, MD, from Johns Hopkins Medical School join our fellowship next year.
2018 Department of Obstetrics and Gynecology

Scholarship

Through invited talks and publication in peer-reviewed journals, our Department is contributing to the dissemination of knowledge and impacting how care is delivered.

Publications


continued
Publications continued


Oladosu, F, Garrison, E, Hellman, K. (2018) NSAID-resistant menstrual pain is due to low serum levels of NSAIDs. Reproductive Sciences 25:145A.


2018 Scholarship


Continued
Presentations continued


Puscheck, E. (2018) Challenging cases in infertility. Wayne State University School of Medicine, Department of Obstetrics and Gynecology 4th Annual Detroit OB/GYN Ultrasound Symposium, Southfield, MI.

Puscheck, E. (2018) Imaging of endometriosis and adenomyosis. Wayne State University School of Medicine, Department of Obstetrics and Gynecology 4th Annual Detroit OB/GYN Ultrasound Symposium, Southfield, MI.


2018 Grants and Research Support

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

Co-Principal Investigator: Understanding socioeconomic disparities in perinatal risk: The role of epigenetic and transcriptional regulation in the placenta. Sponsor: National Institute on Minority Health and Health Disparities/Northwestern University (R01MD01174901).

Principal Investigator: Psychosocial Intervention, Maternal Inflammation and Birth Outcomes: Centering vs. Routine Prenatal Care (PINC). Sponsor: Eunice Kennedy Shriver National Institute of Child Health and Development (1R01HD092446-01A1).

ILPQC Executive Director, Obstetric Lead and Study Principal Investigator: Mothers and newborns affected by opioids initiative. Sponsor: Centers for Disease Control and Prevention: State-Based Perinatal Quality Collaboratives/Mothers and newborns affected by opioids initiative. Sponsor: Centers for Disease Control and Prevention: State-Based Perinatal Quality Collaboratives/IDPH Title V.


Principal Investigator—Illinois Perinatal Quality Collaborative—Working Together for Healthier Moms and Babies in Illinois. Sponsor: DHS.

Principal Investigator: Mothers and newborns affected by opioids initiative. Sponsor: IDPH Title V.


**Mary Tilley Jenkins Vogel, MD**

Awardee: Assessing the impact of combination therapy with metformin and statins on endometrial cancer: Implications for prevention and treatment. Sponsor: NorthShore University Research Institute, Medical Group Pilot Grant Program Award.

Principal Investigator: A Phase III Study of Active Surveillance for Low Risk and a Randomized Trial of Carboplatin vs. Cisplatin for Standard Risk Pediatric and Adult Patients with Germ Cell Tumors COG: AGCT1531.

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 Adjuvant Treatment UC13-1235.

Principal Investigator: Gynecological Oncology Group (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. Sponsor: NCI/GOG (U10CA180868/NCT00492778).

Principal Investigator: GOG 0264; A Randomized Phase II Trial of Paclitaxel and Carboplatin vs. Bevacizumab, Etoposide and Cisplatin for Newly Diagnosed Advanced Stage Ovarian, Fallopian Tube and Peritoneal Cancer. Sponsor: NCI/GOG (U10CA180868/NCT02101788).

Principal Investigator: NRG-GY005; A Randomized Phase II/III study of the combination of cediranib and olaparib compared to cediranib or olaparib alone, or standard of care chemotherapy in women with recurrent platinum-resistant or refractory ovarian, fallopian or primary peritoneal cancer. Sponsor: NCI/NRG (U10CA180868/NCT02502252).

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**Mara Dinsmoor, MD, MPH**

Site Principal Investigator: Maternal-Fetal Medicine Units Network; A randomized trial to prevent congenital CMV infection. Research Subaward Agreement with Northwestern University 60036981NUH.

**Roger Goldberg, MD, MPH**

Principal Investigator: The risk of cognitive impairment in patients starting anticholinergic medications to treat overactive bladder: A prospective trial. Sponsor: NorthShore.

Awardee: NorthShore Department of Obstetrics and Gynecology Innovation Grant for development of the NorthShore Women’s Health Cross Screen to collaborate across multidisciplinary specialties in the care of women.

Co-Principal Investigator: PReSpective Study to Evaluate Effectiveness® with the NURO™ PE rcutaneous Tibial Neuromodulation System in Patients with OAB (RESET). Sponsor: Medtronic.

**Kevin Hellman, PhD**


**Emmet Hirsch, MD**


Co-Investigator: Psychosocial Intervention, Maternal Inflammation and Birth Outcomes: Centering vs. Routine Prenatal Care (PINC). Sponsor: Eunice Kennedy Shriver National Institute of Child Health and Human Development (R01HD092446-01A1).

**Lauren Keenan-Devin, PhD**

Awardee and Primary Investigator: The Perinatal Stress and Breastfeeding Study. Sponsor: NorthShore University Medical Group Pilot Grant Program Award.
Jo Kim, PhD
Co-Investigator: ITM 2.0: Advancing Translational Science in Metropolitan Chicago (Principal Investigator: Soloway, Co-Investigator: Silver). Sponsor: NIH.
Awardee: Mobile MOMS (Moms Overcoming Mood Symptoms). Sponsor: NorthShore University HealthSystem Research Institute/Medical Group Pilot Grant Program.

Elena Moore, MD
Principal Investigator: Pilot study of the impact of early palliative care on quality of life in recurrent ovarian cancer. Sponsor: The NorthShore Auxiliary Board Award.

Omar Nelson, PhD
Awardee and Primary Investigator: Evaluation of the Effects of Progestins and Vitamin D on Inflammatory and Oxidative Chemopreventive Endpoints in the Fallopian Tubes. Sponsor: NorthShore University Medical Group Pilot Grant Program Award.

Beth Plunkett, MD, MPH
Site Principal Investigator: Maternal-Fetal Medicine Units Network. A trial of pessary and progesterone for preterm prevention in twin gestation with a short cervix (PROSPECT). Research Subaward Agreement with Northwestern University 60036981NUH.

Jo Kim, PhD continued
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.

Peter Sand, MD
Principal Investigator: Urinary incontinence symptoms and correlation to urodynamic testing. Sponsor: NorthShore Divisional Funding.

Eunice Kennedy Shriver National Institute of Child Health and Human Development (Principal Investigator: Barton) Sponsor: NIH (1R21CA229707-01).

Richard Silver, MD

Frank Tu, MD, MPH
Principal Investigator: Deciphering the hormonal and nociceptive mechanisms underlying bladder pain. (Co-Investigator: Hellman.) Sponsor: National Institute of Diabetes and Digestive and Kidney Diseases (R01DK10038801/NCT02214550).

Frank Tu, MD, MPH continued

Sangeeta Senapati, MD, MS

Frank Tu, MD, MPH continued
Site Principal Investigator: ICECAN: Interstitial Cystitis Effects of the Central Autonomic Network. Sponsors and Collaborators: Medical College of Wisconsin, NorthShore, Case Western Reserve University (NCT00038382).

Frank Tu, MD, MPH continued
# Clinical Trials

The Department boasts a diverse portfolio of clinical trials that make available the latest options in prevention, diagnostics and therapy for a myriad of conditions in the disciplines of both obstetrics and gynecology.

## DIVISION OF GYNECOLOGIC ONCOLOGY

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<td>GOG 0210: A Molecular Staging Study of Endometrial Carcinoma</td>
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<tr>
<td>Jenkins Vogel</td>
<td>GC10-283; NCI 83448: A Phase II/III 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</td>
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<td>Jenkins Vogel</td>
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<td>Jenkins Vogel</td>
<td>GOG 0286B: A Randomized Phase II/III Study of Paclitaxel/Cisplatin/Metformin (NSC#91485) vs. Paclitaxel/Cisplatin/Placebo as Initial Therapy for Measurable Stage III or IVB, or Recurrent Endometrial Cancer</td>
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<td>Jenkins Vogel</td>
<td>GOG-026-287: A Phase II Study of XL184 (Cabozantinib) in Recurrent Metastatic Endometrial Cancer</td>
<td>University of Chicago Dana Farber Cancer Institute/ NIH/NCI</td>
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<tr>
<td>Jenkins Vogel</td>
<td>Prophylactic Salpingectomy with DelayedOophorectomy, Risk-Reducing Salpingo-Oophorectomy and Ovarian Cancer Screening Among BRCA Mutation Carriers: A Proof of Concept Study 2103-0340</td>
<td>MD Anderson</td>
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<tr>
<td>Jenkins Vogel</td>
<td>GOG3005/AbbVie M13-694: A Phase III Placebo-Controlled Study of Carboplatin/Paclitaxel With or Without Concurrent and Continuation Maintenance Veliparib (PARP Inhibitor) in Subjects With Previously Untreated Stages II or IV High-Grade Serous Epithelial Ovarian, Fallopian Tube or Primary Peritoneal Cancer</td>
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<td>Jenkins Vogel</td>
<td>GOG-0264: A Randomized Phase II Trial of Paclitaxel and Carboplatin vs. Bleomycin, Etoposide and Cisplatin for Newly Diagnosed Advanced Stage and Recurrent Choroidal Nevi Sex-Cord Stromal Tumors</td>
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<tr>
<td>Jenkins Vogel</td>
<td>GOG0281: A Randomized Phase II/III Study to Assess the Efficacy of Tremelimum (GSK 1120212) in Patients with Recurrent or Progressive Low-Grade Serous Ovarian or Peritoneal Cancer</td>
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<tr>
<td>Jenkins Vogel</td>
<td>NRG-GY004: A Phase III Study Comparing Single-Agent Olaparib or the Combination of Cediranib and Olaparib to Standard Platinum-Based Chemotherapy in Women with Recurrent Platinum-Sensitive Ovarian, Fallopian Tube or Primary Peritoneal Cancer</td>
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<td>NRG-GY005: A Randomized Phase II/III Study of Pegylated Liposomal Doxorubicin and CTEP-Supplied Atezolizumab/Bevacizumab vs. Pegylated Liposomal Doxorubicin/Bevacizumab and CTEP-Supplied Atezolizumab vs. Pegylated Liposomal Doxorubicin/Bevacizumab in Platinum-Resistant Ovarian Cancer</td>
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<td>AGCT 1531: A Phase III Study of Active Surveillance for Low Risk and a Randomized Trial of Carboplatin vs. Cisplatin for Standard Risk Pediatric and Adult Patients with Germ Cell Tumors</td>
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<td>Jenkins Vogel</td>
<td>NRG-GY006: A Randomized Phase II/III Study of Pegylated Liposomal Doxorubicin and CTEP-Supplied Atezolizumab (IND 134427) vs. Pegylated Liposomal Doxorubicin/Bevacizumab and CTEP-Supplied Atezolizumab vs. Pegylated Liposomal Doxorubicin/Bevacizumab in Platinum-Resistant Ovarian Cancer</td>
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## Investigator Clinical Trial Sponsor

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<td>Jenkins Vogel</td>
<td>A Multicenter, Open-Label, Randomized, Phase III Trial to Compare the Efficacy and Safety of Lenvatinib in Combination with Pembrolizumab vs. Treatment of Physician’s Choice in Participants with Advanced Endometrial Cancer</td>
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<td>Jenkins Vogel</td>
<td>NRG-GY005: A Randomized Phase II/III Study of the Combination of Cediranib and Olaparib Compared to Cediranib or Olaparib Alone, or Standard of Care Chemotherapy in Women with Recurrent Platinum-Resistant or Refractory Ovarian, Fallopian Tube or Primary Peritoneal Cancer (COGOS)</td>
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<td>Jenkins Vogel</td>
<td>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</td>
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<td>Jenkins Vogel</td>
<td>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</td>
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<td>Jenkins Vogel</td>
<td>A Phase II Trial of Ribociclib (LEE011) plus Letrozole in Women with Recurrent Low-Grade Serous Carcinoma of the Ovary or Peritoneum, Protocol GOG 3026</td>
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<td>Kirschner</td>
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<td>Moore</td>
<td>The Impact that Duration of Time on Chemotherapy Has on Survival in Recurrent Ovarian Cancer</td>
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<td>Moore</td>
<td>Venous Thrombosis in Patients Receiving Extended Pharmacologic Prophylaxis Following Minimally Invasive Surgery for Endometrial Cancer</td>
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<td>Evaluation of Clinical Outcomes in Ovarian Cancer Patients Undergoing Variable Numbers of Postoperative Chemotherapy Cycles Following Neoadjuvant Chemotherapy and Interval Cytoreductive Surgery</td>
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<td>Moore</td>
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<td>Rodriguez</td>
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<td>Rodrigez</td>
<td>Proteomic and Molecular Profiles Associated with Endometrial Carcinogenesis (contract under EH12-150)</td>
<td>The Henry M. Jackson Foundation for the Advancement of Military Medicine</td>
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<td>Rodriguez</td>
<td>A Phase III, Randomised, Double-Blind, Placebo Controlled, Multicentre Study of Oxpabir Maintenance Monotherapy in BRCA Mutated Relapsed Ovarian Cancer Patients who are in Complete or Partial Response Following Platinum-Based Chemotherapy, D0161C001002</td>
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<td>Rodriguez</td>
<td>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</td>
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<td>Rodriguez</td>
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<td>Rodriguez</td>
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**DIVISION OF GYNECOLOGIC ONCOLOGY continued**

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

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<tr>
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**DIVISION OF MATERNAL-FETAL MEDICINE**

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**DIVISION OF OBSTETRICS**

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**DIVISION OF UROGYNECOLOGY AND RECONSTRUCTIVE SURGERY**

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Department Growth

**Raanan Alter, MD**, received his medical degree from Northwestern University Feinberg School of Medicine and completed his residency in Obstetrics and Gynecology at Loyola University. He is pursuing fellowship training with the University of Chicago/NorthShore Gynecologic Oncology program.

**Brian Carroll, DO**, received his medical degree from University of New England School of Osteopathic Medicine and completed his residency in Obstetrics and Gynecology at MWU/OPTI: Presence Resurrection Healthcare Consortium. He is currently in practice in the NorthShore Medical Group with Drs. Dori Becker, Therese Hughes, Rebecca Jacobson, Brenda Kim and Leslie Oshin.

**Jordan Cavanaugh, MSW, LCSW**, received her Master of Social Work degree from Loyola University Chicago. She is a licensed clinical social worker and is serving as a Perinatal Family Support Specialist in the Perinatal Family Support Center.

**Samantha de los Reyes, MD**, received her medical degree from Pennsylvania State University College of Medicine and completed her residency in Obstetrics and Gynecology from Johns Hopkins University. She is currently pursuing fellowship training in the NorthShore University HealthSystem/University of Chicago Maternal-Fetal Medicine program.

**Sonia Dutta, MD**, received her medical degree from New York University School of Medicine, completed her residency in Obstetrics and Gynecology from Johns Hopkins University and her fellowship in Female Pelvic Medicine and Reconstructive Surgery from University of California, Irvine. She is currently in practice with the NorthShore Medical Group—Urogynecology and Reconstructive Surgery.

**Elizabeth Elliott, AM, LCSW**, received her Master of Arts degree in Social Work from University of Chicago, School of Social Service Administration. She is a licensed clinical social worker and is serving as a Perinatal Family Support Specialist in the Perinatal Family Support Center.

**Jennifer Hirshfeld-Cytron, MD**, received her medical degree from University of Minnesota, completed her residency in Obstetrics and Gynecology from University of Chicago Hospitals and her fellowship in Reproductive Endocrinology and Infertility from Northwestern University Hospital. She is currently in practice with Fertility Centers of Illinois.

**Caitlin MacGregor, MD**, received her medical degree from Northwestern University Feinberg School of Medicine and completed her residency in Obstetrics and Gynecology from Brown University, Women and Infants Hospital. She is currently pursuing fellowship training in the NorthShore University HealthSystem/University of Chicago Maternal-Fetal Medicine program.

**Omar Nelson, PhD**, received his PhD in neuroscience from University of Texas Southwestern Medical Center at Dallas. He is a research scientist working closely with Dr. Gustavo Rodriguez in the Department within the Division of Gynecologic Oncology.

**Autumn Perrault, RN, MSN**, received her bachelor's degree in nursing from Calvin College and her Master of Nursing degree from Western Governors University. She is serving as a Quality Manager for the Illinois Perinatal Quality Collaborative (ILPQC) in the Division of Maternal-Fetal Medicine with Dr. Ann Borders.

**Joseph Pincus, MD**, received his medical degree from Northwestern University Feinberg School of Medicine and completed his residency in Obstetrics and Gynecology from Montefiore Medical Center/Albert Einstein College of Medicine. He is pursuing Urogynecologic fellowship training in the NorthShore Division of Urogynecology and Reconstructive Surgery.

**Elizabeth Puscheck, MD**, received her medical degree from Washington University Medical School, completed her residency in Obstetrics and Gynecology from Barnes-Jewish Hospital, and completed her fellowship in Reproductive Endocrine, Infertility and Genetics from Medical College of Georgia. She is currently in practice with InVia Fertility.

**Sheri Schreiber, MD**, received her medical degree from University of Health Sciences/The Chicago Medical School and completed her residency in Obstetrics and Gynecology from Columbus-Cabrini Health System. She is currently practicing in the Lake County area.

**Erin Tran, MD**, received her medical degree from Dartmouth Medical School, completed her residency in Obstetrics and Gynecology from Brigham and Women's/Massachusetts General Hospitals and her fellowship in Maternal-Fetal Medicine from University of California, San Francisco. She is currently in practice in the NorthShore Medical Group—Maternal-Fetal Medicine.
### Service to the Department Committees

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<td>Cheryl Axelrod, MD</td>
<td>Kathleen Arrecis, RN</td>
<td>Bernhard Allgaier, MD</td>
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<td>Carol Ellman, MD</td>
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<td>Linda Given-Welch, CNM, MS</td>
<td>Kathleen Arrecis, RN</td>
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<td>Peggy King, RN</td>
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<td>Karen Kelly, PharmD7</td>
<td>Debora Lesnick, CNM</td>
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<td>Jo Kim, PhD</td>
<td>Dietra Millard, MD</td>
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<td>Mark Neerhof, DO</td>
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<td>Mark Neerhof, DO</td>
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<td>Katherine Packard, RN</td>
<td>David Ouyang, MD</td>
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<td>Beth Plunkett, MD, MPH</td>
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<td>Gustavo Rodriguez, MD</td>
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<td>Myra Sabini, BSN, RNC-OB, C-EFM</td>
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<td>Aiisya Williamson, MHSA</td>
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1 Chair  
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3 Anesthesiology  
4 Risk Management  
5 Pathology  
6 Family Medicine  
7 Pharmacy  
8 Quality Improvement  
9 Neonatology  
10 Infection Control
GYNECOLOGIC ONCOLOGY

Raanan Alter, MD*
Claire Hoppenot, MD*
Mary Tilley Jenkins Vogel, MD
Carolyn Kirschner, MD
Isabel Lazo, MD*
Elena Moore, MD
Omar Nelson, PhD
Gustavo Rodriguez, MD

Kalloog Cancer Center
2650 Ridge Avenue
Evanston, IL 60201
(847) 570-2839

9650 Gross Point Road, Ste. 3900
Skokie, IL 60076
(847) 570-2839

757 Park Avenue West
Highland Park, IL 60035
(847) 570-2839

2180 Pfingsten Road
Glenview, IL 60026
(847) 570-2839

John Knaus, DO
5747 Dempster Street, Ste. 100
Morton Grove, IL 60053
(847) 663-1030

GYNECOLOGICAL PAIN AND MINIMALLY INVASIVE SURGERY

Gerald Gebhart, PhD
Kevin Hellman, PhD
Folabomi (Bomi) Oladosu, PhD
Sanjeeta Senapati, MD, MS
Frank Tu, MD, MPH

9650 Gross Point Road, Ste. 3900
Skokie, IL 60076
(847) 926-6544

757 Park Avenue West
Highland Park, IL 60035
(847) 926-6544

GYNECOLOGY

Joyce Chams, MD
2601 Compass Road, Ste. 115
Glenview, IL 60026
(847) 998-4637

Anna Bonadonna, MD
Margaret Salamon, MD
9650 Gross Point Road, Ste. 3900
Skokie, IL 60076
(847) 677-1400

OBSTETRICS/GYNECOLOGY

(continued)

Carol Ellman, MD
Elizabeth Forbes, MD
Amy Henriot, MD
Stephanie Heraty, MD
Karyn Grimm Herndon, MD
Narissa Jill Hoprasart, MD
Melissa Keene, MD
Jeremy Miller, MD
Ronald Miller, MD
Miriah Plawer, MD
Linda Given Welch, CNM
1000 Central Street, Ste. 700
Evanston, IL 60201
(847) 869-3300

3633 W. Lake Avenue, Ste. 204
Glenview, IL 60026
(847) 869-3300

Pamela Goodwin, MD
Jennifer Jaume, CNM
Kim Johnson, MD
Gaye Koconis, CNM
Debora Lesnick, CNM
Mary Rigoni, CNM
Jean Ruth, MD
H. Jacob Saleh, MD
Sarah Sumagin, CNM
Barbara Zimmerman-Minnich, CNM
328 Linden Avenue
Wilmette, IL 60091
(847) 475-1225

2501 Compass Road, Ste. 130
Glenview, IL 60026
(847) 864-1200

Judith Cothran, MD
4905 Old Orchard Center, Ste. 200
Skokie, IL 60077
(847) 923-6155

45 W. 111th Street
3rd Floor Clinics
Chicago, IL 60628
(773) 995-3466

Dori Becker, MD
Brian Carroll, DO
Therese Hughes, MD
Rebecca Jacobson, MD
Brenda Kim, DO
Leslie Oshin, MD
757 Park Avenue West, Ste. 2800
Highland Park, IL 60035
(847) 432-1558

915 S. Waukegan Road, Ste. 200
Lake Forest, IL 60045
(847) 432-1558

650 W. Lake Cook Road
Buffalo Grove, IL 60089
(847) 432-1558

7900 Rollins Road, Ste. 1100
Gurnee, IL 60031
(847) 432-1558
OBSTETRICS/GYNECOLOGY

Carl Buccellato, MD
Joby George, MD
Susan Kramer, MD
Edward Lee, MD
Erica Smith, MD
Mary Faith Terkildsen, MD
Megan Valassis, MD
225 N. Milwaukee Avenue
Vernon Hills, IL 60061
(847) 941-7600
49 S. Waukegan Road, Ste. 100
Deerfield, IL 60015
(847) 941-7600
757 Park Avenue West, Ste. 102
Highland Park, IL 60035
(847) 941-7600
15 Tower Court, Ste. 300
Gurnee, IL 60031
(847) 941-7600
1329 N. Wolf Road
Mount Prospect, IL 60056
(847) 941-7600
Jeffrey Lerch, MD
777 Park Avenue West
Highland Park, IL 60035
(847) 480-3714
Alla Bodner, MD
Nicole Brady, CNP
Joseph Capezio, MD
Andrew Deutsch, MD
Deborah Johnson, CNM
Carla Loly, MD
Dorina Scaunas, MD
Julie Snow, MD
Sujanya Tummuru, MD
1475 E. Belvidere Road, Ste. 216
Grayslake, IL 60030
(847) 692-9234
1875 Dempster Street, Ste. 245
Park Ridge, IL 60068
(847) 692-9234
Dianna Kim, MD
Sarah Wong, MD
250 East Center Drive, Ste. 101
Vernon Hills, IL 60061
(847) 918-7050

OBSTETRICS/GYNECOLOGY (continued)

Karen Mass, MD
900 N. Westmoreland Road, Ste. 223
Lake Forest, IL 60045
(847) 295-0433
1475 E. Belvidere Road, Ste. 212
Grayslake, IL 60030
(847) 295-0433
Robert Rosenberg, MD
1170 E. Belvidere Road, Ste. 102
Grayslake, IL 60030
(847) 548-9999
Sheri Schreiber, MD
222 S. Greenleaf Street, Ste. 112
Gurnee, IL 60031
(847) 336-8472

REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

Anne Borkowski, MD
4250 Dempster Street
Skokie, IL 60076
(847) 763-8850
Susan Davies, MD
2640 Patriot Boulevard, Ste. 260
Glenview, IL 60026
(847) 972-0300
Sigal Klipstein, MD
Elizabeth Puscheck, MD
1585 N. Barrington Road, Ste. 406
Hoffman Estates, IL 60169
(847) 884-8884
1535 Lake Cook Road, Ste. 506
Northbrook, IL 60062
(847) 884-8884
880 W. Central Road, Ste. 3400
Arlington Heights, IL 60005
(847) 884-8884

REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY (continued)

Jennifer Hirshfeld-Cytron, MD
Laurence Jacobs, MD
Brian Kaplan, MD
Edward L. Marut, MD
John Rapisarda, MD
Allison Rodgers, MD
767 Park Avenue West, Ste. 190
Highland Park, IL 60035
(847) 433-4400
3703 W. Lake Avenue, Ste. 106
Glenview, IL 60026
(847) 998-8200
135 N. Arlington Heights Road, Ste. 195
Buffalo Grove, IL 60089
(847) 215-8899
2260 W. Higgins Road, Ste. 200
Hoffman Estates, IL 60169
(847) 843-1510
2592 E. Grand Avenue, Ste. 208
Chicago, IL 60610
(312) 222-8230

SHweta Nayak, MD
John Rinehart, MD, PhD, JD
2500 Ridge Avenue, Ste. 308
 Evanston, IL 60201
(847) 869-7777
233 E. Erie Street, Ste. 307
Chicago, IL 60611
(312) 337-1611
1535 Lake Cook Road, Ste. 102
Northbrook, IL 60062
(224) 261-8710
2425 W. 22nd Street, Ste. 200
Oak Brook, IL 60523
(630) 954-0054
5851 W. 95th Street, Ste. 117
Oak Lawn, IL 60453
(708) 741-7012
471 W. Army Trail Road, Ste. 105
Bloomington, IL 61708
(630) 221-8131

S niea Dutta, MD
Adam Gafni-Kane, MD
Roger Goldberg, MD, MPH
Svjetlana Lozo, MD, MPH*
Joseph Pincus, MD*
Ghazaleh Rostami Nia, MD, MSPH*
Peter Sand, MD
225 N. Milwaukee Avenue, Ste. 1500
Vernon Hills, IL 60061
(224) 251-2374
9650 Gross Point Road, Ste. 3900
Skokie, IL 60076
(224) 251-2374
2050 Pfingsten Road, Ste. 128
Glenview, IL 60026
(224) 251-2374
757 Park Avenue West, Ste. 3870
Highland Park, IL 60035
(224) 251-2374
15 Tower Court, Ste. 300
Gurnee, IL 60031
(224) 251-2374

Sandjay Gandhi, MD
660 N. Westmoreland Road
Lake Forest, IL 60045
(847) 234-1100
Marko Jachtorowycz, MD
5747 Dempster Street, Ste. 100
Morton Grove, IL 60053
(847) 663-1030
Michael Noone, MD
Brett Vassallo, MD
1375 W. Dempster, Ste. 665
Park Ridge, IL 60068
(847) 825-1590

*2018 Fellow
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NorthShore Evanston Hospital
2650 Ridge Avenue, Evanston, IL 60201
(847) 570-2000

NorthShore Glenbrook Hospital
2100 Pfingsten Road, Glenview, IL 60026
(847) 657-5800

NorthShore Highland Park Hospital
777 Park Avenue West, Highland Park, IL 60035
(847) 432-8000

NorthShore Skokie Hospital
9600 Gross Point Road, Skokie, IL 60076
(847) 677-9600

NorthShore Medical Group
1301 Central Street, Evanston, IL 60201
(847) 570-5235

NorthShore Foundation
1033 University Place, Suite 450, Evanston, IL 60201
(224) 364-7200

NorthShore Research Institute
1001 University Place, Evanston, IL 60201
(224) 364-7100