Winter 2016

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A publication for those who support the University of Minnesota Department of Obstetrics, Gynecology and Women's Health

The Modern Birth Experience

Few moments in life can rival the joy of learning you're pregnant.

Then the questions start rushing in: Is it a boy or girl? What will you name her? What color will his room be?

But beyond these surface-level questions, parents have more fundamental considerations about the baby's health, well-being and the type of delivery experience they hope to have.



Gynecology and Women's Health has been providing exceptional maternity services for more than 100 years. From low intervention pregnancies to highrisk procedures involving fetal abnormalities, the professionals from the Dept. of Ob/Gyn work with expectant moms to monitor their pregnancy and deliver their babies.

The University of Minnesota's Department of Obstetrics,

Trend, Science, or Both?

Like other areas of medicine, "natural" and "holistic" are among the most popular buzzwords in birthing. While these adjectives can be signs of pseudo-science elsewhere, The Birthplace at the University of Minnesota Medical Center is pairing integrative therapies like acupuncture and Reiki with the latest evidence-based clinical practice guidelines to enhance and modernize the traditional birthing experience.

These therapies help women manage the pain, stress and anxiety that come with labor and delivery. By blending such comprehensive care with \$21 million worth of upgrades – like private bathrooms with soaking tubs, microwaves, refrigerators, flat-screen TVs and floor-to-ceiling skyline views – The Birthplace creates a warm, welcoming experience for moms, babies and families.



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Modern Birth Experience, continued

'No Two Pregnancies Are the Same'

Another critical component to a successful birthing experience is the proper providerpatient relationship and creating a customized labor and delivery plan.



Maternal-Fetal Medicine Specialist, Dr. Yasuko Yamamura, talks with a patient

"Pregnancy is a very personal experience and no two pregnancies are the same, which is why we tailor care based on individual patient needs."

~Ann Forster Page, Certified Nurse Midwife "Pregnancy is a very personal experience and no two pregnancies are the same, which is why we tailor care based on individual patient needs," said Ann Forster Page, Certified Nurse Midwife in the Dept. of OB/Gyn and Women's Health. "Our care teams know that delivery is not one size fits all."

Certified Nurse Midwives deliver about 40 percent of newborns at The Birthplace at University of Minnesota Medical Center. These care providers are licensed, registered nurses with Master of Science degrees. Each midwife at The Birthplace is certified by the American College of Nurse-Midwives. Their goal is to help patients minimize technological interventions and offer continuous handson care during labor, birth and postpartum care. Such a certification is unique to The Birthplace because most birthing centers do not have as highly trained staff. UMN nurse midwives also collaborate closely with our OB/Gyn physician specialists. After working with a nurse midwife, a patient might learn that she needs the expertise of an obstetrician, who can offer a prescriptive course of delivery if potential risk factors or complications arise for mom or baby.

Carrie Terrell, M.D., the medical director for M Health Women's Health Specialists Clinic, notes this continuum of care as a point of distinction between academic medical centers and other mother and baby centers.

"Many independent birthing centers will work with expecting moms, but refer their patients to other specialists if something doesn't go according to plan," said Terrell. "What makes The Birthplace at University of Minnesota Medical Center special is that our teams make sure patients have seamless care whether it's routine or rare, and our facilities can accommodate any number of tests and procedures."

When women are experiencing complications with pregnancy, specialty care is critically important. A recent study published in the *New England Journal of Medicine* found that babies born outside of a hospital setting are more than two times more likely to die in severe situations.

In addition to OB/Gyn specialists, M Health's maternal-fetal medicine specialists, neonatologists and geneticists have helped achieve some of the best care in the nation. The University of Minnesota Medical Center has the best neonatology program in the state, according to *U.S. New and World Report*, and is among the top neonatal care providers in the nation. The Birthplace and hospital facilities recently received a \$21 million investment, which includes:

- Newly expanded Level IV neonatal intensive care unit (NICU), which includes a 13-bed expansion to 62 beds and 11 private rooms
- Construction of 24 new postpartum units with private bathrooms, and floor to ceiling windows with skyline views
- Renovated Maternal-Fetal Medicine Center, designed to create a more mother- and familyoriented experience for those needing high-risk obstetrical care.

The Birthplace's updated look builds upon a tradition of breakthrough, multidisciplinary care. Providers at The Birthplace have recently pioneered new techniques for use during labor and delivery, including the tap block, a localized pain management practice that reduces narcotics use and allows mothers to remain more lucid following birth. It was also among the first institutions nationwide to offer the "family-centered" C-section advancements that simulate a natural birth, allowing a mother and child to bond quickly following surgery.

"We all share the philosophy that moms and families choose where they want their prenatal care," said Daniel Landers, M.D., director of the maternal-fetal medicine division. "It's our responsibility as the only academic medical center in the Twin Cities to offer the latest evidenced-based medical practice, leading-edge amenities, compassion and attentiveness."





Gynecologic Cancer Clinic moving to the new innovative M Health Clinics & Surgery Center

As one of the largest gynecologic cancer programs in the Midwest, our nationally recognized team of gynecologic oncologists treats all cancers of the reproductive system, including cervix, ovaries, uterus and vulva. We offer a full range of treatment options, including specialized chemotherapy, radiation and surgical options. Clinical research is core to the gyn onc mission and sets our care apart. The new Clinics and Surgery Center was designed to accommodate research and it is an opportunity for patients to be part of the process of innovation and discovery. The gynecologic cancer clinic starts seeing patients in the new building on February 22, 2016.

Read more at www. mhealth.org/blog

UMP Midwives Collaborate with the School of Nursing

Newborn babies rarely stick to schedules, plans or preparations. For midwives at University of Minnesota Physicians (UMP), that calls for a special set of skills. They must always be on their toes and ready for the moment their services are needed.



Melissa Avery (left) and Ann Forster Page

"We're hoping the collaboration creates a stronger partnership between midwives who are teaching and those who are full-time clinicians."

~Melissa Avery

The hectic nature of midwifery can make interacting with students on their clinical rotations in the midwifery clinic challenging.

"In the clinic setting, we as midwives didn't feel we could get as close to students as we would have liked because of the time restraints and the busy clinic setting," said

Ann Forster Page, director of midwifery services at UMP.

That's why the University of Minnesota School of Nursing and UMP have created a partnership aimed to build and improve the interprofessional learning experience for nurse-midwife students.

Three practicing midwives from M Health's Women's Health Specialists Clinic will each co-teach courses in a formal university setting, not just a clinical setting. The university-based midwives will continue to be committed clinicians full-time while contributing more in the classroom setting.

Forster Page, along with Melissa Avery, Ph.D., professor in the School of Nursing, created this plan to fill a need for faculty in the growing School of Nursing and to bring the expertise of full-time clinicians to students. It's also an excellent opportunity for collaborative research. "We're hoping this collaboration creates a stronger partnership between midwives who are teaching and those who are fulltime clinicians," Avery said.

Forster Page and her fellow midwives, Margaret Szondy and Carrie Neerland, are excited to become more involved with the classroom setting. Some of the midwives already provide guest lectures, but the midwives wanted to become more involved with the teaching process.

Kayla Fuller, a second-year midwifery Doctor of Nursing Practice student, likes that instructors who are currently practicing in their fields usually bring real world scenarios into the classroom.

"They bring the relevant practicum piece of learning midwifery," Kayla said. "Though professors stay up-to-date on current guidelines, it's beneficial for students learning midwifery to have professionals teach the guidelines used daily in practice."

The collaboration will give practicing midwives and nursing students the structure needed to build stronger relationships with one another and allow students to learn from practicing midwives in a classroom setting.

"While students have access throughout their courses, this goes a little deeper to have three current practicing midwives who are committed as their teachers, not just in a clinical preceptor setting," Forster Page said.

The initial two-year collaboration will begin in the fall of 2016, but Avery and Forster Page are hoping it will be an ongoing relationship.

MNhpv Initiative Aims to Increase HPV vaccination rates across Minnesota

Recently, all 69 National Cancer Institute (NCI)-designated cancer centers released a groundbreaking consensus statement that captures the reason UMN's Division of Gynecologic Oncology and the Masonic Cancer Center, University of Minnesota launched the Minnesota HPV (MNhpv) program last year:

"The Human Papilloma Virus (HPV) infects about 79 million each year in the United States and over 27,000 women and men are affected by a cancer caused by HPV – that's a new case every 20 minutes. Yet, the most life threatening HPVs are preventable with the availability of the safe and effective vaccine. HPV vaccination prevents several deadly cancers and is lifesaving. HPV vaccination is a game changer for several cancers including cervical, anal and oral cancers."

The MNhpv initiative brings together students and faculty from medicine, nursing, dentistry and pharmacy to meet one objective: *increase HPV vaccination rates across Minnesota*. We know that UMN is uniquely positioned to lead this charge and to do so in a way that emphasizes *interprofessional collaboration* – something that is as important in academic medicine as it is in patient care.

MNhpv is fortunate to partner with Minnesota Department of Health and the American Cancer Society in this important cancer prevention initiative. On April 25, UMN Gynecologic Oncology and Masonic Cancer Center, University of Minnesota are hosting a meeting of stakeholders from across the state to share ideas and create a plan to increase HPV vaccination rates throughout Minnesota.

MNHPV Summit - April 25, 2016 http://cancer.umn.edu/community-events-and-outreach/index.htm

"HPV vaccination is a game changer for several cancers including cervical, anal and oral cancers."

HEALTH	Vision: Improving the health of all Minnesotans through interprofessional practice and research		
MN hpv.org	Mission: To increase HPV vaccination rates across all of Minnesota regardless of geography, demographics or socioeconomic status		
	Goals	Strategy	Execution
Adolescent Vaccines	1. 个 HPV vaccine initiation	Increase provider urgency to recommend the vaccine to parents	Surveys (pre- and post-education) aimed at raising provider awareness of their own biases
1 Tdap 1 MenACWY 3 HPV (F) 3 HPV (F) 3 HPV (M) 3 HPV (M) 3 HPV (M)	2. 个 HPV vaccine completion	Coordinate inter- professional teams to promote and give the full series of the vaccine	Qualitative analysis of the professionalism, respect and adaptability of different types of providers as they work together



ACGME honors Phillip Rauk, M.D., with the Parker J. Palmer Courage to Teach Award

The Accreditation Council for Graduate Medical Education (ACGME) recently announced the 2016 recipients of their annual Courage to Teach Award.

The Courage to Teach Award is presented to up to 10 program directors across the country who have fostered innovation and improvements in their residency programs and serve as exemplary role models for residents. Dr. Rauk is the first Obstetrics & Gynecology program director to receive the award since its inception in 2010. Congratulations, Dr. Rauk!

What's new?

Promotions

Congratulations to the Department of Ob/Gyn & Women's Health faculty members on their promotions:

Promotion from Associate Professor to Full Professor Dr. Phillip Rauk, *Division of Maternal Fetal Medicine*

Promotion from Assistant Professor to Associate Professor Dr. Rahel Ghebre, *Division of Gynecologic Oncology*

NIH Research

Carrie Terrell, M.D. is a Co-PI on the NIH continuation grant to research the *Effect of Exercise and Wellness Interventions on Preventing Pregnancy Postpartum Depression.* Dr. Beth Lewis is Principal Investigator.



New faculty and staff

Christy Boraas, M.D., M.P.H., joined the Obstetrics & Gynecology division in July 2015. Dr. Borass completed her M.D. at the University of Minnesota, her residency at the Ohio State University Wexner Medical Center, and went on to complete a fellowship in Family Planning at Magee-Womens Hospital in Pittsburgh. Her clinical and research interests include family planning, contraceptive counseling, global health, colposcopy and LEEP and adolescent gynecology and contraception.



Britt Erickson, M.D., joined the Gynecologic Oncology division in September 2015. Dr. Erickson received her M.D. from the Mayo Clinic College of Medicine, and completed both her residency and fellowship at the University of Alabama, Birmingham. Her current interests include early detection of ovarian cancer and health care delivery and quality outcomes in ovarian cancer treatment.



Katherine Jacobs, D.O., joined the Division of Maternal-Fetal Medicine in July 2015. Dr. Jacobs received her D.O. from the University of North Texas Health Science Center in Fort Worth and completed both her residency and fellowship training at the University of Minnesota. Her current research involves a cross-sectional study analyzing if anterior abdominal wall depth affects the correlations between transabdominal and transvaginal cervical length.



Colleen Rivard, M.D., joined the Gynecologic Oncology division in August 2015. Dr. Rivard received her M.D. from Loyola University Stritch School of Medicine and completed her residency at Loyola and her Gyn Onc Fellowship at the University of Minnesota. Her research interests include surgical outcomes and her clinical interests include minimally invasive and robotic surgical techniques. Dr. Rivard will be involved in resident research education to improve surgical skills and simulation techniques.

Ashley Daniels, Nurse Practitioner, joined M Health Gynecologic Cancer Clinic.

Carrie Kneisl, Certified Nurse Midwife, joined M Health Women's Health Specialists.

Inspiration in Women's Health Award

In October 2015, the National Organization of Nurse Practitioners in Women's Health awarded Diana Drake, D.N.P., W.H.N.P., the Inspiration in Women's Health Award in Education. Dr. Drake is the program director in Women's Integrative Health at the Women's Health Specialists Clinic and program director of the D.N.P., W.H.N.P. program at the UMN School of Nursing.

Photo: left to right: Susan Hoffstetter, Chair of the Board of Directors, NPWH, Ajaya Das, TEVA Women's Health, Diana Drake, Gay Johnson, CEO NPWH.



Research Update

Basic and translational research is an integral part of the work being done by the faculty and staff in the Department of Obstetrics, Gynecology and Women's Health at the University of Minnesota. Our goal is to take our research from the lab to clinical trials and then finally into the clinic or hospital setting, where it can improve the lives of patients. Many exciting research projects are currently being conducted by the physicians and researchers in the Department, from testing new drugs to creating mouse models of ovarian cancer.

Clinical trials are conducted by the Department's faculty to determine whether or not novel therapies or practices will produce better outcomes for our patients. There are currently 18 clinical trials being conducted by our basic scientists and physician-scientist faculty members. Several of these trials are testing novel therapies, including immunotherapies and PARP inhibitors for the treatment of cancer. In addition to testing new therapies, other studies include: conducting trials aimed at improving rapid recovery after a patient has had surgery; using mobile phone applications for cervical cancer screenings; and improving sexual function and quality of life after cancer treatment. To read more about these trials, visit omis.cancer.umn. edu/research/clinicaltrials/ and click on gynecologic malignancies.

Before new drugs and other types of treatments can be tested in clinical trials, researchers and physicians must first have a thorough understanding of the underlying causes of the disease.



Above: Dr. Martina Bazzaro Right: Makayla Maile and Wiebke Heilmann

Ph.D. scientists in the Department, including Drs. Martina Bazzaro, Amy Skubitz and Tim Starr, are conducting several basic research projects that could eventually lead to clinical trials. One of these projects, led by Dr. Bazzaro, is focused on finding out why some patients with endometrial cancer relapse after surgery and chemotherapy. She has discovered a protein that is more likely to be found in patients with recurrent endometrial cancer. This discovery has potential to be used as a biomarker for identifying high risk patients. She is also testing new drugs that can counteract this protein, which could lead to the development of a new treatment for chemotherapy-resistant endometrial cancer.

Work in Dr. Starr's lab includes three research projects aimed at understanding how ovarian cancer develops and becomes resistant to currently available chemotherapies. The first project, in collaboration with Dr. Bazzaro and Dr. Melissa Geller, uses mice as surrogate patients in what are referred to as "pre-clinical" trials. In this study, tumor samples from ovarian cancer patients are grafted into mice and the mice are then treated with different therapies. In the future, these mice could be used to screen for efficacious drugs tailored to a specific patient.



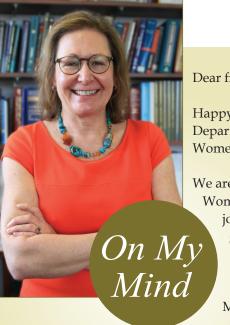
A second project, developed by Dr. Michelle Glasgow, a Gynecologic Oncology Fellow working in Dr. Starr's lab, is using state-of-the-art RNA sequencing technology to analyze changes in gene expression after a patient is treated with chemotherapy. The goal of this project is to determine which genes may be responsible for patients developing resistance to chemotherapy. A third project is to analyze the role of a protein named APOBEC3B that is normally involved in combating viral infection in cells. When this protein becomes active in breast cancer it can cause hundreds of mutations and may contribute to metastasis, but its role in ovarian cancer is unclear. This project was recently awarded a generous grant from the Mayo Clinic in Rochester, and Dr. Starr is collaborating with another University of Minnesota professor, Dr. Reuben Harris, one of the world's leading APOBEC3B experts. Together they will generate mice that turn on the protein in the ovaries and use these mice to discover how the protein may contribute to ovarian cancer growth and chemotherapy resistance. Drugs are currently being developed that specifically counteract the activity of the APOBEC3B protein, and these could eventually be tested in ovarian cancer patients.

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Dear friends,

Happy New Year, and welcome to the Department of Obstetrics, Gynecology and Women's Health 2016 newsletter.

We are excited to welcome several new Women's Health providers to our team. They join a nationally honored and recognized group of obstetrical providers in M Health, where they practice in our newly created Birthplace and its associated NICU at the University of Minnesota Masonic Children's Hospital.

Our department, along with National Cancer Institute-designated Cancer Centers across the country, has also participated in the creation of a consensus statement regarding HPV vaccination. Nationally and locally, rates of HPV vaccination are extremely low despite the availability of this safe and effective method of cancer prevention. Together with a multidisciplinary team of health care providers, we plan to work with our colleagues in greater Minnesota to strongly encourage

parents to immunize their sons and daughters prior to age 13. This is truly an interprofessional initiative: the University of Minnesota's schools of Nursing, Dentistry, and Pharmacy, the Minnesota Department of Health, the American Cancer Society, the Rural Physicians Associates Program and the Masonic Cancer Center, University of Minnesota have partnered with our department in this effort.

Our research will be completed in early 2017, at which time we hope to demonstrate an improvement in HPV vaccination rates throughout the state of Minnesota.

Best wishes for a happy and healthy 2016!

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Linda Carson, M.D., F.A.C.O.G. Professor and Chair, Department of Obstetrics, Gynecology and Women's Health

women's health Winter 2016

Published by the Department of Obstetrics, For more information, please contact Gynecology and Women's Health Writers AHC Office of Communications Staff

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