A deluge of health information, much of it confusing or conflicting, is directed at women in the United States today. Not surprisingly, women have many legitimate questions about how to best manage their health. Each life stage contains specific issues, including decisions about routine care, birth control, fertility, pregnancy, and menopause—each requiring specialized expertise. Additionally, an array of medical issues, such as gynecologic cancers and pelvic floor disorders, specifically afflict women. Some of these conditions, ovarian cancer being a poignant example, represent major challenges in medicine today warranting not only state-of-the-art care but also intensive research leading to better treatment methods.
The Department of Gynecology and Obstetrics at Johns Hopkins Medicine offers a full spectrum of women’s healthcare services—from yearly checkups and prenatal care to specialized gynecologic care—provided by national experts in all areas of women’s health. This care truly spans all stages of a woman’s life.

While providing high-quality care for women with gynecologic needs and disorders, the faculty at Johns Hopkins also conduct cutting-edge research to advance the science underlying care, so as to continuously improve upon the services offered.

**Priority #1: Women’s Reproductive Research Core**

Women’s reproductive health is a primary focus of Johns Hopkins Gynecology and Obstetrics, and research is the driving force for its improvement. It is through research that physician-scientists come to better understand reproductive processes in detail, and to intervene to maintain or restore reproductive function. Studies are necessary to address a multitude of needs. The most productive way to simultaneously support these studies is through a “research core,” an infrastructure that provides resources and services used by multiple studies, and that serves as a hub to connect investigators and pool their expertise.

Through the creation of a Women’s Reproductive Research Core, scientific advances can be made with respect to critical issues in gynecology, gynecologic oncology, reproductive endocrinology, female pelvic medicine, and obstetrics. By providing research teams with designated space, staff, statistical expertise, coordinators, analytic support, and a data registry, the Core can powerfully expedite a wide range of studies. Additionally, it can help advance the careers of physician-scientists focused on women’s reproductive health, thus ensuring a fresh infusion of talent and expertise into this important area. Potential targets of investigation supported through the Women’s Reproductive Research Core include: prevention of prematurity, prevention of fetal loss, strategies for improving perinatal outcomes, ovarian cancer immunology, cervical dysplasia, preservation of fertility, and pelvic floor disorders.

**Priority #2: Center for Weight Management**

Obesity in women of reproductive age is a significant public health issue. In 2012, 30% of American women who became pregnant were obese. By the year 2020, this proportion is expected to climb to 50%. Obesity increases a woman’s risk of pregnancy complications including preeclampsia, cesarean section, and stillbirth, and exacerbates other known risks such as diabetes and cardiovascular disease. The children of obese women also are at higher risk for obesity and its health-compromising, potentially life-threatening, complications.

RISING TO THE CHALLENGE

A CALL TO ACTION

Rising to the Challenge: The Campaign for Johns Hopkins will raise unprecedented levels of support to attract, sustain, and further empower the people of Johns Hopkins—our students, faculty, and researchers—who through their work improve the lives of millions around the world. Together with our philanthropic partners we will:

ADVANCE DISCOVERY AND CREATIVITY
through support of our exceptional faculty and researchers. Their innovative work drives the development of new knowledge, new forms of expression, and new ways to save lives and improve health, and furthers progress across our core disciplines in science and technology, the humanities and arts, and public health and medicine.

ENRICH THE STUDENT EXPERIENCE
by investing in scholarships and fellowships, inspirational spaces for collaborative learning and social opportunities, and new programs that will enhance student-faculty interactions, ensure diversity on campus, link learning in the classroom to life after graduation, and strengthen connections between our students and our surrounding communities.

SOLVE GLOBAL PROBLEMS AS ONE UNIVERSITY
by creating new cross-disciplinary solutions in crucial areas such as sustaining global water resources, revitalizing America’s cities, advancing individualized health, understanding how we learn and teach, and attacking the root causes of global health problems.

The Johns Hopkins Department of Gynecology and Obstetrics is committed to playing a key role in the success of the campaign. Please join with us in this important mission.
“Translational research” starts with discoveries in the laboratory and, through a progression of studies, leads to new and better methods of patient care.

The establishment of a Center for Weight Management led by the Johns Hopkins Department of Gynecology and Obstetrics will create a combined research and targeted clinical program, one designed to exert a strong impact on the overweight—thereby improving health and saving lives.

The Center’s clinical weight management program will deliver nutrition counseling, promote healthy exercise, and provide ongoing culturally-sensitive support for weight reduction. A women’s fitness and exercise program will create an enduring “home” for women’s ongoing weight management efforts. It will also allow the opportunity to study the obese body’s physiological adaptations to exercise in pregnancy and the effect of exercise on health outcomes of mothers and newborns. Research within the Center will initially focus on fertility control, issues related to reproduction after bariatric surgery, and optimal reproductive healthcare for obese women.

The Johns Hopkins Department of Gynecology and Obstetrics

PRIORITY PROGRAMS OF THE DEPARTMENT OF GYNECOLOGY AND OBSTETRICS

In addition to these two overarching priorities, there are priorities within the subspecialties of the Department of Gynecology and Obstetrics. Some of these include:

PREVENTING UNINTENDED PREGNANCIES:
Over 50% of pregnancies in the United States are unintended; this ratio has remained nearly unchanged for over a decade. Unintended pregnancies exact a significant medical, emotional, social, and financial toll on women, their families, and society. The Department of Gynecology and Obstetrics has a visionary two-pronged plan for reducing unintended pregnancies. First, it will offer a comprehensive contraceptive education program that encompasses peer group counseling, interactive teaching tools, web-based materials, counseling, and community outreach. The program will empower all patients for contraceptive choice and family planning, but will especially target women with evidence of unprotected sexual activity. And second, it will increase the availability of long-acting reversible and permanent contraception. These efforts will serve many women who desire longer-acting contraceptive methods but hope to have children in the future. It also will help others who have completed childbearing and desire a permanent method of contraception, but are discouraged by issues such as cost and insurance coverage.

TRANSLATING RESEARCH INTO BETTER MATERNAL AND FETAL HEALTH:
‘Translational research’ starts with discoveries in the laboratory and, through a progression of studies, leads to new and better methods of patient care. By establishing a Center for Translational Research in Women’s Health, Reproduction, and Fetal Medicine, the Department will be able to assemble a multi-specialty research team capable of addressing important Gynecologic and Obstetric issues such as: discovering how conditions during pregnancy affect individuals at different life stages, from fetus to adulthood; developing biomarkers of disease to guide personalized care; designing and testing therapies for disease prevention and treatment; and training future physicians and researchers dedicated to improving the health of women and infants. Research will be wide ranging, focusing on topics such as: the use of bone marrow stem cells to cure sickle cell disease and other severe conditions; the use of adipose (fat) stem cells to prevent preterm birth and prematurity-related fetal brain injury; and the improvement of reproductive outcomes, and long-term outcomes, for obese mothers and their infants.

CARING FOR PATIENTS WITH GYNECOLOGICAL CANCERS:
A diagnosis of a gynecologic malignancy can be stressful and sometimes terrifying. Good patient care for gynecologic cancers attends to a woman’s needs in a comprehensive fashion, seamlessly integrating care provided by multiple specialties. At the Gynecologic Oncology Multidisciplinary Cancer Clinic, in a single day, patients receive a comprehensive evaluation that incorporates education, diagnosis, and treatment by some of the top specialists in the country. Patients have access to a full spectrum of treatments, ranging from complementary and alternative modalities such as massage and acupuncture to cutting-edge therapies available through clinical trials. Women who desire to maintain childbearing options benefit from the expertise offered by Johns Hopkins infertility specialists regarding fertility sparing options.

OFFERING PERSONALIZED, MINIMALLY INVASIVE APPROACHES TO PELVIC SURGERY:
The past 30 years have ushered in a variety of minimally invasive surgical options in gynecology, including advanced hysteroscopic, laparoscopic, and robotic techniques. Advantages of these methods are lower cost, fewer complications, and fertility sparing. Established in 2008, the Johns Hopkins Minimally Invasive Pelvic Surgery Program initially focused on uterine fibroids, which occur in 20-30% of American women. The Program’s scope quickly expanded to include the full spectrum of minimally invasive surgical techniques. Under the director’s leadership, the Program is a center of excellence in patient care, education, training, and research. Multidisciplinary care is personalized for each woman. Next generations of minimally invasive pelvic surgeons are being trained through this world-class Program which offers: (1) comprehensive training in evidence-based minimally invasive surgery, delivered in a compassionate and holistic manner; (2) opportunities for minimally invasive surgical research, and; (3) experience within a multidisciplinary research/clinical environment that promotes collaboration.

NUTRITION AND OBESITY IN PREGNANCY:
Obesity begins in the womb. In 2011, the John Hopkins Department of Gynecology and Obstetrics established the Obesity in Pregnancy Research Group to investigate the causes and progression of adverse outcomes in obese mothers and children, through long-term follow-up of mother-and-child dyads. This research group convenes scientists in gynecology and obstetrics, internal medicine, public health, pediatrics, psychiatry, nursing, nutrition, and exercise physiology. Shortly after establishing the Group, the Department opened the Nutrition in Pregnancy Clinic to provide medical, nutritional, and emotional support for the growing population of obese mothers and mothers-to-be, and to educate physicians about best care of and counseling for pregnant women who are obese.

TACKLING MENOPAUSE:
By the year 2020, seventy-five million postmenopausal women will be living in the United States. Surviving well into their eighties, most of today’s women will spend one third of their lives in menopause. Younger female cancer patients who undergo early menopause due to chemotherapy, radiation, or surgery will be menopausal for several decades.
With an increasing number of women reaching menopause, the Menopause Program at Johns Hopkins Gynecology has been developed. The program includes hormone therapy, which is hotly contested. The field of Gynecology and Obstetrics remains controversial and requires a focus on the pathophysiology of hormone therapy. The Department of Obstetrics at Johns HopkinsHospital has created the Menopausal Medicine curriculum for residency programs worldwide.

**Improving Methods of Treatment for Ovarian Cancer:** Among women in the United States, ovarian cancer ranks fifth as a cause of cancer-related death. Because the majority of cases are diagnosed at an advanced stage, the five-year survival rate for ovarian cancer patients remains below 30%. Novel treatments for ovarian cancer are urgently needed. Recently, immunotherapy has shown promise as a strategy to fight ovarian cancer. Immunotherapies take two basic approaches: (1) a vaccine that trains a patient’s immune system to destroy cancer cells; or (2) antibodies administered to the patient that can either neutralize cancer cells or stimulate the patient’s own defenses. Research at Johns Hopkins has shown that ovarian cancer inhibits immune system response. Hopkins scientists have identified several cell types associated with this immunosuppression. Their current studies focus on understanding specific cells’ roles as a healthy immune response against ovarian cancer. With the new knowledge discovered in the field of Gynecology and Obstetrics, the researchers intend to develop novel treatments for ovarian cancer, as well as, new screening tests focused on early detection.

**Outcomes Research in Gynecology and Obstetrics:** Historically, medical choices have often been based on factors such as anecdotal experience, poorly designed studies, and the desire to use new technologies. For best patient care, what is needed is a sound “evidence base” with which to make treatment decisions; that is, data regarding the efficacy, safety, and cost of available treatments. For example, Minimally Invasive Surgery has only recently been applied to pelvic surgery and there is limited evidence related to the relative effectiveness of different techniques for both short- and long-term outcomes, safety, and cost. The Laparoscopy and Birth Outcomes Research Program is a multidisciplinary approach to outcomes research in Gynecology and Obstetrics. Its purposes are to: (1) analyze surgical care and outcomes, so as to reduce risk to gynecological surgical patients; (2) build capacity for research among gynecologic surgeons, in collaboration with other departments; and (3) mentor future providers of gynecologic care to further build the body of knowledge from which Gynecology and Obstetrics surgical care will grow and improve.

**Why Johns Hopkins?**

We provide the best of the best patient care. The name Johns Hopkins, virtually synonymous with excellence, U.S. News & World Report has consistently ranked Johns Hopkins Hospital as the best in the United States, and the field of Gynecology and Obstetrics among the top in the nation. Patients come to Hopkins from the mid-Atlantic region, across the United States, and around the world. They are drawn by the long tradition of Johns Hopkins’ leadership and by evidence of our continued excellence at the cutting edge of medicine.

**We are proven innovators.**

The history of the Department of Gynecology and Obstetrics is one of innovation. Certain procedures, instruments, and the leading textbook on gynecologic surgery bear the legendary names of Johns Hopkins physicians Howard Kelly and Richard TeLinde. In 2009, a gynecology member of the minimally invasive surgery team performed the first transvaginal extraction of a donor kidney in collaboration with the renal transplant team. In short, the Department’s research programs yield important results that lead to better clinical care and better health for women.

**What will it take?**

As National Institutes of Health support continues to decrease and reimbursement for clinical care falls short of covering the costs of education and discovery, the Department must depend on significant philanthropic support.

**Philanthropy can make the difference.**

Philanthropic funding can help jumpstart new research studies, make rapid progress with current research agendas, and build research capacity that will powerfully support future studies and translation of results to clinical care. Being more flexible than grant funding, philanthropic dollars can help to enhance programs and services in ways that make care more patient-friendly, accessible, and comprehensive. These funds can underwrite important nonclinical (i.e., not reimbursed) activities that expand the services offered to patients and the community—for example, efforts to support women challenged with obesity to adopt a healthy lifestyle, or to build a robust evidence base to guide medical decision-making for women.
Rising to the Challenge:
The Campaign for Johns Hopkins
The Johns Hopkins Department of Gynecology and Obstetrics
Johns Hopkins Medicine
100 North Charles Street, Suite 316
Baltimore, Maryland 21201
410-516-8986
rising.jhu.edu

rev. 03/03/14