Dear Friends,

Since the passage of the NIH Revitalization Act of 1993, mandating the inclusion of women in federally funded clinical trials, there has been a growing body of evidence that sex differences are found in all body systems beyond reproductive health. Sex differences can have significant and underestimated consequences in clinical medicine. The purpose of sex-based research is undermined if we don't translate it into sex appropriate clinical care. Gone are the days when women's health was simply bikini medicine! It is important to sensitize physicians about sex differences and provide tools to ensure that treatment is tailored to one's sex.

The Women's Health Research Institute has partnered with six clinical services at Northwestern Medicine that address the special needs of women outside of the traditional women-only conditions such as female cancers. These clinics are described below.

Sincerely,

The Institute Staff

Treating Women Differently
The intent of sex specific clinics is to integrate new knowledge about sex differences related to gene expression, drug pharmacokinetics, hormonal cycling and reproductive function to complex chronic diseases and overall health. These clinics are not intended to be primary care centers but rather authoritative consulting services where physicians can refer their patients for complicated conditions.

The Women's Neurology Center
For example, conditions that affect the brain can be more complicated to treat in women, and Northwestern Medicine neurologists have joined together to create a unique Women's Neurology Center. Women with neurologic conditions such as epilepsy, multiple sclerosis, stroke, migraines, and sleep disorders have extra challenges when it comes to contraception, pregnancy and menopause. According to Elizabeth Gerard, MD, co-director of the multidisciplinary Women's Neurology Center at Northwestern Medicine, and expert on epilepsy in women, "Brain differences between men and women complicate the response of targeted therapies for neurological conditions. Dealing with hormonal fluctuations during the menstrual cycle and menopause, choosing appropriate contraception, planning pregnancy, and addressing infertility issues are among the unique challenges faced by females with neurological disease." These challenges are best approached with the help of physicians with neurological expertise in caring for female patients.

Cardiology Programs Focusing on Women
Research has identified many sex differences in heart disease symptoms, diagnoses, and treatments. The Program for Women's Cardiovascular Health in the Department of Cardiology provides a standard of care that recognizes women as unique individuals and tailors treatment strategies to optimize their specific cardiovascular needs. The staff conducts clinical research and educates physicians and the public about sex differences. The Heart Disease and Pregnancy Program under the direction of Marla Mendelson, MD, working closely with specialists in maternal-fetal medicine, has helped many women with cardiovascular disease undergo a safe pregnancy for both mother and baby.

Psychiatry
Women with a history of depression and other mood disorders fear taking medication to control their illness during pregnancy, but without intervention, they put both their pregnancy and themselves at risk. According to Katherine L. Wisner, MD, MS, director, Asher Center for the Study and Treatment of Depressive Disorders at Northwestern Medicine, "Very few doctors feel comfortable treating their pregnant patients with drugs, since medications have rarely been studied in pregnant
Physicians rely on instinct and experience in difficult cases, but also hesitate because of concern about the fetus and the potential for litigation, should something go wrong. "A severely depressed pregnant woman may need medication to prevent harm to herself or her baby, and litigation is also possible for failing to treat with medication," says Wisner. The attitude toward the inclusion of pregnant women changed somewhat when the H1N1 flu virus appeared and pregnant women were particularly vulnerable. Physicians like Wisner who specialize in treating women with mental conditions, including pregnant women, understand the human agony of these cases and are willing to provide clinical care and conduct research studies to address this issue.

**Pelvic Floor Disorders**

The *Women's Integrated Pelvic Health Program at Northwestern Medicine*, led by Kimberly Kenton, MD, MS, brings a multidisciplinary approach and includes a team of experts in female pelvic medicine and reconstructive surgery, urogynecology, colon and rectal surgery and physical therapy. One in four women will experience a pelvic floor disorder; yet, despite increasing high quality medical research showing treatments are safe and effective, myths continue to discourage women from seeking treatment. Kenton and her team participate in clinical and translational research aimed at improving treatment outcomes, advancing understanding of neuromuscular injury in pelvic floor disorders, and identifying strategies to prevent women from developing pelvic floor disorders after childbirth.

**Dermatology**

The *Women's Skin Program* under the direction of Bethanee Schlosser, MD, PhD, in the Department of Dermatology in the Feinberg School of Medicine, provides medical treatment and education regarding common skin disorders as well as surgical and cosmetic consultation. Participating dermatologists have a strong interest in vulvar diseases and infections and skin conditions that occur in pregnancy. While most are not life threatening, these conditions can seriously impact a woman’s quality of life. Ironically, most skin research in the laboratory is done on cells grown from male foreskin, establishing an understanding of skin cell function that has never been tested in female skin cells. However, Amy S. Paller, MS, MD, Director of the Skin Disease Research Center and Chair, Department of Dermatology at the Feinberg School of Medicine, is generating a skin cell and tissue bank that includes both male and female cells enabling sex variables in function and response to medication to be studied in conditions including eczema and psoriasis that impact tens of millions of individuals, both male and female.

**Women and HIV**

In 1991, Pat Garcia, MD, professor of Maternal and Fetal Medicine at Feinberg School of Medicine and Michelle Till developed one of the first Women’s HIV
Programs in the country to address the unique needs of these women. A critical segment of the population is HIV-positive expectant mothers, so this innovative program was tailored to provide the necessary support to treat these women and bring their HIV-free babies into the world. Today, Garcia along with Sarah Sutton, MD, assistant professor of Medicine at FSM, oversee the Women's HIV Program of the Infectious Disease Center at Northwestern Memorial Hospital. Their dedicated multidisciplinary team of professionals have delivered over 390 babies who have been born HIV free.

**Specialty Clinics Address Complex Cases**

Women's specialty clinics beyond the disciplines of obstetrics and gynecology are an important resource for family practitioners, internists, and even, in certain cases, specialists. An endocrinologist with a diabetic patient who becomes pregnant may need advice on glucose/hormonal interactions. An obstetrician may have a postpartum patient with complicated pelvic injury. As the research community moves to a greater inclusion and understanding of sex differences, health care providers need to be alert to these ongoing changes and seek counsel for their more complex cases.

*Author: Sharon Green, MHA, Executive Director, Women's Health Research Institute.*

**Gender Matters, Too**

To further personalize clinical health care in men and women, gender differences also matters. While 'sex' refers to the biological and physiological characteristic that define men and women (male or female), 'gender' refers to roles, behaviors, activities and attributes that a given society considers appropriate for men and women (masculine or feminine). While gender is not measureable in animals and cells, it is an important factor in clinical care and impacts the doctor-patient relationship significantly.

**Special CME Program for Physicians to Provide More on Specialty Services and Sex Differences**

*Treating Women Differently: the Case for Sex-Based Medicine*

Friday, November 21, 2014 1-5 pm

Prentice Women’s Hospital, Chicago

*Accreditation Statement*

*The Northwestern University Feinberg School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing*
medical education for physicians.

Credit Designation Statement
The Northwestern University Feinberg School of Medicine designates this live activity for a maximum of 3.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The registration fee is $25 for physicians and $15 for all other healthcare professionals. To register, please contact Sarah Baggs at sbaggs@nmh.org.

UPCOMING EVENTS

September 9, 2014: Mended Hearts Chapter 106 Meeting at Northwestern Memorial Hospital

September 16, 2014: Our September research forum will be presented by Lauren Streicher, MD. Her presentation is entitled "Slip Sliding Away? Post Menopause Sexual Health" and will be presented on September 16, 2014. Click here to register today!

October 9, 2014: 16th Annual Lynn Sage Breast Cancer Symposium

October 19, 2014: Lynn Sage Town Hall Meeting

October 21, 2014: October Research Forum--"Sex Differences in Musculoskeletal Diseases Across the Lifespan"

Forward email

This email was sent to b-cushing@northwestern.edu by womenshealthresearch@northwestern.edu | Update Profile/Email Address | Rapid removal with SafeUnsubscribe™ | Privacy Policy.

Northwestern University | Inst for Women's Health Rsrch | 30E E Superior St, Lurie 10-121 | Chicago | IL | 60611