Medical Director’s Report

On behalf of the Gynecologic Oncology Team at Inova Fairfax Hospital Women’s Center, I am proud to present this annual report. The Gynecologic Oncology Program has been cultivated and developed over the past 20 years and now represents the largest volume center in the Washington D.C. region for the treatment of gynecologic malignancies. The mission of our multidisciplinary team is to provide top quality care and cutting-edge therapy and diagnostics to our patients. This care is supported by four gynecologic oncologists, fellows, and residents providing state-of-the-art care and clinical and translational research.

Our multidisciplinary team includes radiation oncologists, interventional and diagnostic radiologists as well as gynecologic pathologists who meet regularly with our gynecologic oncologists in a tumor board setting to optimize patient care and maximize treatment options.

We are pleased to share our Gynecologic Outcomes Report with the community to promote quality improvement and public awareness of our comprehensive cancer center. This report provides data on patient volumes and outcomes, a review of surgical approaches and trends, as well as a summary of novel technologies and research protocols available. We invite you to consider the Gynecologic Cancer Program at Inova Fairfax Hospital Women’s Center as your referral center.

Sincerely,
Annette Bicher, MD
Medical Director, Gynecologic Oncology Program
Inova Fairfax Hospital Women’s Center

The future of gynecologic cancer care is here...now.
Award-winning Patient-focused Care

The Gynecologic Oncology Program at Inova Fairfax Hospital Women’s Center provides the highest quality of gynecologic cancer care for women. Our multidisciplinary team of gynecologic oncologists, radiation oncologists, radiologists and pathologists coordinate the best care for each patient from diagnosis to treatment and provide follow-up monitoring and care. Our program is consistently ranked among the nation’s Top 25 hospitals for gynecology by *U.S. News & World Report*. Here are some of the reasons why:

- Four nationally recognized, fellowship trained gynecologic oncologists
- Dedicated gynecologic oncology patient navigator
- Our gynecologic cancer team performs more than 1,200 major surgeries each year
- Access to the latest in clinical research through Gynecologic Oncology Group (GOG), National Cancer Institute (NCI) and pharmaceutical protocols
- Our Center is the major teaching affiliate for the largest gynecologic oncology fellowship program in the Washington D.C. region

Our Gynecologic Oncology Program is nationally recognized for world-class patient care and excellence. Some of our most recent and ongoing accolades include:

**U.S. News & World Report Best Hospitals Ranking.** Inova Fairfax Hospital Women’s Center was named one of “America’s Best Hospitals” in 2010-2011. Our gynecology program was ranked #24 in the nation.

**Magnet™ Recognition.** Inova Fairfax Hospital is the proud recipient of the American Nurses Credentialing Center’s Magnet designation, accepted nationally as the gold standard in nursing excellence.

**Beacon Award.** Inova Fairfax Hospital received the prestigious Beacon Award for critical care nursing excellence from the American Association of Critical Care Nurses. The award recognizes highest-quality outcomes among facilities nationwide.
Gynecologic Cancers: Overview and Treatments

Epithelial Ovarian Cancer

Ovarian cancer is the seventh most common cancer among women. The most common subtype (85-90%) is epithelial. This type of cancer begins on the surface cells of the ovary. Unfortunately, ovarian cancer ranks fifth in cancer deaths among women and causes more deaths than any other cancer in the female reproductive tract. Estimates show there will be approximately 21,880 new ovarian cancer cases diagnosed and 13,850 deaths from ovarian cancer in 2010 in the United States[1].

Risk Factors

The risk of ovarian cancer increases with age. Family history is one of the most important independent risk factors but this only accounts for approximately 10% of cases. In those patients with significant hereditary risk factors, genetic counseling and testing should be recommended. Depending on the family history either BRCA1/2 testing should be considered vs. MSH/MLH (Lynch Syndrome) testing. A personal history of breast cancer, infertility and not bearing children all lead to an increased risk of ovarian cancer. Meanwhile, pregnancy and birth control pill use decrease the risk of the disease.

Screening/Prevention

Currently, there is no accepted screening test for the general population. High-risk patients can be followed with either annual or bi-annual ultrasound and CA-125 testing. Studies are ongoing to validate potential use of multi-marker assays as screening tools. Surgical prophylaxis with laparoscopic removal of both tubes and ovaries is generally advised in those patients with proven genetic risk once childbearing is complete.

Treatment

Clinical management of patients with ovarian cancer generally involves a combination of surgery and chemotherapy. Surgical debulking resulting in as little remaining disease as possible (preferably microscopic but less than 1 centimeter of disease remaining) yields a prognostic advantage to the patient). Neoadjuvant chemotherapy followed by an interval debulking is preferred in patients with multiple comorbidities or with imaging suggesting unresectable disease. Current initial chemotherapeutic regimens include a combination of a platinum and a taxane. Multiple clinical trials are ongoing in an effort to continue to improve upon “standard” therapy. Among these trials are different drug schedules, intraperitoneal administration and the addition of biologic agents. The exploration of molecular profiling of tumors and targeted therapeutics is spurring the development of a more personalized approach to treatment.

Endometrial Cancer

Cancer of the uterus is the most common reproductive cancer and the fourth most common cancer in women with only lung, breast and colon cancer occurring more frequently. There were an estimated 43,470 new cases in 2010 and more than 95% were adenocarcinomas with the remaining 5% representing sarcomas. In the U.S., there were approximately 7,950 deaths from uterine cancer in 2010. Fortunately, the majority of endometrial carcinomas are diagnosed early leading to a very high cure rate, especially relative to ovarian cancer.

The most common warning sign is abnormal vaginal bleeding. Early reporting of this symptom allows for early diagnosis and treatment. Additionally, a rapidly growing fibroid either pre- or postmenopausally should heighten concern for a possible evolving sarcoma.

Risk Factors

The primary risk factor for endometrial adenocarcinoma is unopposed estrogen. This can be associated with exogenous estrogen, obesity and tamoxifen use. Additional risk factors include diabetes, hypertension, late menopause and nulliparity. An inherited risk may be present in women with a strong family history of endometrial or colon cancer.

Screening and Prevention

Currently, no routine screening is recommended. A common misunderstanding is that the PAP smear could function as a screening test for this disease. Unfortunately, PAPs are the only effective screening for cervical cancer. Progestin therapy can be helpful in decreasing the risk of endometrioid endometrial cancer either when given alone or in combination with estrogen.

Treatment

Appropriate surgical management is critical in the treatment of this disease. It allows for removal of the primary site of the cancer and an evaluation of the presence of metastatic disease through staging biopsies. Gynecologic oncologists are specifically trained in the management of this disease both surgically and in making the appropriate post-operative treatment recommendations. Frequently, if the disease is discovered in its early stages, surgery alone is adequate treatment. Recent surgical advancements have revealed that minimally invasive surgery (both laparoscopic and robotic) has led to decreased perioperative morbidity with no compromise in survival.

Most patients will present with low risk disease confined to the uterus. The risk of recurrence in this cohort is less than 10% while survival is greater than 90%. In patients with high-risk factors such as age greater than 70, high-grade tumor, high-risk cell type, deep invasion into the uterine muscle, or a more advanced stage at diagnosis, additional therapy is indicated. Multiple clinical trials are currently evaluating the optimal regimens in these cases. A combination of surgery, chemotherapy and radiation is frequently utilized. The utility of adding biologic agents and the evaluation of the benefit of vaccine therapy is ongoing.
Gynecologic Surgery Utilizing the da Vinci®

Our surgeons utilize the da Vinci® robot to treat a range of gynecologic cancers including cervical and uterine, using minimally invasive surgical techniques.

Through incisions as small as 1 to 2 centimeters, our surgeons use the da Vinci® to operate with incredible precision and control, minimizing the pain and risk associated with large incisions while increasing the likelihood of a fast recovery and excellent clinical outcomes.

We performed over 100 da Vinci® cases in 2010 and continue to leverage this technology as a surgical option for those patients who qualify.

The Gynecologic Cancer Multidisciplinary Team

Inova Fairfax Hospital Women’s Surgical Center, PACU and Gynecology Inpatient Unit

Inova Fairfax Hospital provides operating and recovery rooms designed exclusively for gynecologic procedures and a post anesthesia unit (PACU) dedicated to women’s care. Our specialized gynecologic surgical teams support the minimally invasive advanced laparoscopic and hysteroscopic pelvic and surgical procedures performed by our surgeons, including da Vinci® robotic procedures. Our inpatient gynecology unit provides care for women staying for short post-surgical recovery to those who need longer and repeat hospital care.

Inova Fairfax Hospital Outpatient Infusion Center and Inpatient Oncology Ward

These units provide expert oncology nursing care to our gynecologic oncology patients. In addition to standard therapies and transfusion services, a core group of nurses receive additional training to provide care to our patients receiving combination intravenous and intraperitoneal chemotherapy. This unit has provided this service to our patients for several years and has truly developed expertise in this technique.

Inova Fairfax Hospital Radiation Oncology Program

The Radiation Oncology Program at Inova Fairfax Hospital provides a variety of therapies for patients with gynecologic malignancies. External beam radiation therapy, using 3-dimensional conformal planning or intensity modulated radiation therapy (IMRT) with image guidance, is delivered using state-of-the-art linear accelerators (Varian Trilogy) or the only TomoTherapy® unit in Northern Virginia. With built-in CT image capabilities, these units allow physicians to visualize the areas being treated, leading to higher precision, and better avoidance of normal structures. Brachytherapy (implant) procedures using high dose rate (HDR) and low dose rate (LDR) sources are also available for patients. Over 600 HDR brachytherapy treatments have been done since 2008.
The Radiology Oncology staff consists of six board-certified radiation oncologists, including Dr. Stella Hetelekidis who specialize in gynecologic radiation therapy. In addition, the department is staffed with five board-certified physicists and six dosimetrists who help the physicians develop customized, precise treatments for each patient. Treatments are delivered by a staff of well-trained, experienced therapists. A dedicated social worker and dietician meet with each patient in the course of her treatments, and five oncology nurses assist the physicians in monitoring and following patients during and after treatment. The physicians work very closely with the gynecologic oncologists to provide the best treatment for our patients. Overall, the program provides all of the treatment options available at most large university centers in a convenient outpatient setting, allowing patients to receive these complex treatments, close to home.

Interventional Radiology

The Division of Vascular and Interventional Radiology provides important minimally invasive, image-guided procedures for patients with gynecologic malignancies. Many of these procedures are supportive and some are direct therapeutic procedures. We do this through a group of eight board-certified, specialty-trained interventionists. Our interventionists use ultrasound, fluoroscopic or CT guidance to perform these procedures. Many of these procedures are integral to the patient’s overall care, including placement of mediports for venous access or peritoneal ports for direct instillation of chemotherapy. Gastrostomy tubes can provide major relief for intestinal obstructions or be used for supplemental nutrition, and fluid can be removed from the abdomen or chest in simple outpatient procedures. David Spinosa, MD, is the section chief of Vascular and Interventional Radiology.

Some patients with gynecologic malignancies develop metastasis or spread to the liver. While the original tumor may respond to conventional treatments, in many cases the liver metastases do not. Our interventionists, working through a dedicated cancer clinic at the Inova Center for Interventional Oncology, are able to evaluate patients for minimally invasive liver directed therapies using either local ablation or directed arterial therapy. We are the first in Northern Virginia to have used radiofrequency and microwave ablation as well as an arterial therapy called Y90 radioembolization. With local ablation, a small needle is directed into a tumor mass in the liver under imaging guidance in a sedated patient. Energy is delivered to the tip of the probe either with microwave or radiofrequency, and the lesion is killed by the localized heat. The arterial therapies are suitable for treating a larger area of the liver with more tumor involvement. Millions of tiny beads, each with a small radioactive particle embedded within it, are injected into the artery supplying the liver. These beads congregate around areas of tumor and preserve normal liver tissue. Y90 radioembolization is appropriate for some patients with widespread disease in the liver but controlled tumor outside the liver. This process is a coordinated effort between Interventional Radiology and Radiation Oncology.

Appointments are coordinated through our navigator, Stacey Steves, NP at 703-205-2618. Alain Drooz, MD, is the medical director of the Center for Interventional Oncology.
A Story of Hope

How could this be? Why me? Those were the questions that raced through my mind after I learned I had Stage I cervical cancer at the age of 25. I had gone for my annual Ob/Gyn exam and a few days later received the news that I had an abnormal pap smear. My doctor referred me to Dr. John Elkas, a gynecologic oncologist, who performed a biopsy and made the diagnosis.

According to Dr. Elkas, the only solution was to operate immediately. I was newly engaged, finishing my last semester in college and looking forward to graduating and starting my career. Even though surgery would delay my graduation, I agreed my health had to come first.

Following surgery at Inova Fairfax Hospital Women’s Center, I learned from Dr. Elkas that my tumor wasn’t centralized and he had to perform a radical hysterectomy. This meant that my uterus, cervix and fallopian tubes were removed. I was initially devastated because I wanted to start a family and bear my own child. However, Dr. Elkas gave me some bright news. He was able to preserve my ovaries and therefore I was biologically able to have a baby, just not carry one myself. How would I go about this? Who would carry my baby?

I just celebrated 2 years of being cancer free and I’m reminded every day of the gift I have — my beautiful one-year-old baby girl, Isabella.

The answer came from within my own family, from my oldest sister, Arpi who offered to carry my baby. Wow, I thought. What a remarkable gesture considering she already has three children of her own. Let’s go ahead and see what transpires. Two months following my surgery, Arpi and I began a series of tests, psychological evaluations and physicals to determine if she could bear my child. We were excited to learn that Arpi could be my gestational carrier and became pregnant after the first IVF treatment.

Throughout the entire pregnancy, I was by Arpi’s side and with my baby every day. We ate lunch together, I gave her pep talks and saw my baby grow and move. I couldn’t wait for my baby girl’s arrival and we knew this delivery would be like no other. In July 2010, just over a year after my surgery, Isabella was born at Inova Fairfax Hospital Women’s Center. I was in the delivery room hand-in-hand with my sister and when she was placed in my arms, I was overjoyed and blessed with this miracle that came true.

During this journey, my relationship with my husband and family has grown. I cherish each moment with them, more than ever before. Arpi and I have always been connected as sisters, but now we share a closer bond. It’s a bond that not many people have and I’m grateful for it.

I just celebrated 2 years of being cancer free and I’m reminded every day of the gift I have — my beautiful one-year-old baby girl, Isabella. When I look at Isabella, I think about how lucky I am to be given a second chance at life and everything that has to offer. Isabella represents hope for all those who have lost hope. She’s my little miracle baby.
Gynecologic Cancer Survival Rates at Inova Fairfax Hospital Women’s Center

Key Statistics

The number of newly diagnosed gynecologic cancer patients at our center has grown 51% from 292 in 2003 to 440 in 2009.

Newly Diagnosed Gynecologic Oncology Patients at Inova Fairfax Hospital Women’s Center 2003 - 2009

Year

Number of Newly Diagnosed Patients

Source: IFH Cancer Registry (Analytic and non-Analytic patients)

Key Statistics

From 2009 to 2010, the percent of cancer abdominal surgery procedures performed laparoscopically increased from 31% to 40%.

Surgical Caseload by Tumor Site 2009 - 2010

Year

Surgical Cases by Cancer Diagnosis

Source: IFH Cancer Registry (Analytic and non-Analytic patients)
50% of total surgeries for uterine, ovarian, vaginal, vulvar and cervical cancers were performed on an outpatient basis in 2010 and an additional 22% of patients were hospitalized for three days or less.

Percentage of Gynecologic Oncology Surgical Patients with Hospital Stay 3 Days or Less
Ovarian Cancer Survival Rates by Stage III - IV
Inova Fairfax Hospital Women’s Center vs Southeast Region vs National Cancer Data Base (NCBD)
2003 - 2008 (Up to 5 years after diagnosis)

Stage III

Stage IV
Uterine Cancer Survival Rates by Stage II - IV
Inova Fairfax Hospital Women’s Center vs Southeast Region vs National Cancer Data Base (NCBD)
2003 - 2008 (Up to 5 years after diagnosis)
Patient and Family-Centered Care Services

The Care Team

Navigator

As part of the Gynecologic Oncology Program at Inova Fairfax Hospital Women’s Center, we offer a patient care navigator. The goal of a navigator is to provide individualized assistance, information and support to patients, families and caregivers through the cancer care experience in order to minimize stress and maximize opportunity for a positive care experience.

Marcy Osterhaus is a certified oncology nurse with over 20 years of oncology nursing experience. She utilizes her vast knowledge of gynecologic cancer, treatments and the healthcare system to guide patients and their families through the medical process from diagnosis through treatment and recovery. Through collaboration with providers and other healthcare professionals, Marcy assists women with a diagnosis of gynecologic cancer to receive optimum care and offers access to resources they need in a timely and efficient manner. For international patients, Marcy coordinates multi-language translators and provides cancer literature.

Case Management

A case manager is part of the care team for all gynecologic oncology patients. This manager provides assessments of the patient’s clinical, social, functional and continuing care needs throughout their hospital experience. The patient assessments and evaluations are done to determine the interventions needed and are shared with the professional care team to plan for immediate and ongoing needs.

As part of the multidisciplinary team, the case manager contributes quality measures of the planning process to ensure patient’s needs are being met effectively and with compassion.

Nutritionist

Gynecologic oncology patients have access to an inpatient clinical dietitian for nutrition assessment, education and nutritional support. The dietitian develops an individualized nutrition plan of care, based on assessment findings including patient interviews, interpreting laboratory data and information from other members of the healthcare team.

The dietitian then coordinates and assists the healthcare team with the integration of the nutrition care plan into the overall care of the patient. This includes creating a nutrition plan for improved wound healing and teaching patients healthy nutritional choices during therapy.

The clinical dietitian is a valuable resource to the patient and care team in providing optimal patient care.

Social Worker

The social worker is an integral part of the gynecologic oncology care team. The social worker is available to provide an initial patient psychosocial assessment for identifying discharge and ongoing needs as well as other support resources that may be helpful. Recommendations are then given to the patient and the care team. Community referrals are placed as directed by the patients needs.

The social worker participates with the care team to offer support to the patient and the caregivers, especially during end of life issues and resolution of complex discharge needs.
Support Programs

Life with Cancer®

A gynecologic cancer support group meets monthly as part of Inova Health System’s Life with Cancer® community support and education program for cancer patients, their families and friends. The program offers creative, physical and social outlets that can help ease fears and improve quality of life for all those affected by the disease. Funded primarily by community contributions, Life with Cancer® programs are provided free of charge regardless of where a patient lives or receives treatment.

The staff at Life with Cancer® focuses on the total needs of the patient, going beyond medical treatment to address psychological and social needs created by the disease. It is so rewarding to see all the ways we are able to help people affected by cancer and improve their quality of life.

The newly opened Dewberry Life with Cancer® Family Center—the largest of its kind in the nation—provides a warm, welcoming environment for those affected by cancer. It includes the Sharon Nicolaisen Appearance Center, a one-stop-shop where cancer patients can find everything they need to improve their appearance and quality of life during treatment.

Genetic Counseling

Inova Cancer Services is proud to offer the only comprehensive genetic counseling program for cancer in Northern Virginia. The Inova Cancer Genetic Counseling Program serves patients with a personal and/or family history of many different types of cancers, including ovarian and uterine cancer. Our board-certified genetic counselor conducts individualized hereditary cancer risk assessments, facilitates the ordering of appropriate genetic tests and interprets test results. Services are provided with compassion and attention to the emotional impact on patients and families.

Commitment to the Community

The gynecology oncology program at Inova Fairfax Hospital Women’s Center is committed to providing resources and education to the Northern Virginia community. We partner with organizations that share our mission, and our physicians and staff volunteer at events to spread the word about cancer prevention and care. Highlights include:

- **Women’s Health Month (May) and Ovarian Cancer Month (September)** – Sponsored a series of free lectures on Gynecologic Cancer topics to educate the public on prevention, risk factors and treatment options. More than 50 women attended.

- **The Foundation for Women’s Cancer National Race to End Women’s Cancer** – Inova Fairfax Hospital Women’s Center sponsored the 1st annual race in Washington in November 2009. Inova physicians, nurses and staff ran or walked the 10K, 5K and 1 mile race. More than 2,200 people participated, raising $320,000. The Inova team provided a booth for participants to learn about our services and receive free massages and nutritional guidance before and after the race.

Annette Bicher, MD, logging out the 10K race at the finish line.
Research

Current research efforts are being conducted in collaboration with the National Cancer Institute, the Gynecologic Oncology Group and various industry sponsored protocols to offer patients the opportunity to participate in cutting-edge research. Our research protocols include first line treatment for those patients newly diagnosed with gynecologic malignancies as well as trials for those diagnosed with recurrent or progressive disease. Currently, available clinical trials are geared towards ovarian, endometrial and cervical carcinomas.

Each protocol offers the patient standard of care treatment along with investigational products that have shown promise in the treatment of cancer. PARP inhibitors, HER 2 pathway blockers, Anti-VEGF and investigational chemotherapies are being utilized. A Phase I vaccine trial in advanced epithelial and ovarian cancer is also being launched. Tissue acquisition at the time of a patient’s initial surgery is another area of research that may offer benefit to the patient by offering specific treatment tailored to the genetic typing of the tumor. This tissue can be sent for chemo sensitivity and/or molecular profiling in an effort to help individualize therapy.

Ovarian Epithelial Cancer

Phase I
Dr. John Elkas - E39 - Phase Ib trial of folate binding protein (FBP) peptide (E39) vaccine in ovarian and endometrial cancer patients.

Phase III
Dr. John Elkas - GOG0212 - A randomized phase III trial of maintenance chemotherapy comparing 12 monthly cycles of single agent paclitaxel or xytax versus no treatment until documented relapse in women with advanced ovarian or primary peritoneal cancer who achieve a complete clinical response to primary platinum/taxane chemotherapy.

Dr. John Elkas - GOG0252 - A phase III clinical trial of bevacizumab with IV versus IP chemotherapy in ovarian, fallopian tube and primary peritoneal carcinoma.

Dr. John Elkas - GOG0262 - A randomized phase III trial of every-3-weeks paclitaxel versus dose dense weekly paclitaxel in combination with carboplatin with or without concurrent and consolidation bevacizumab in the treatment of primary stage III or IV epithelial ovarian, peritoneal or fallopian tube cancer.

Dr. John Elkas - Amgen - A phase III, randomized, double-blind trial of Pegylated Liposomal Doxorubicin (PLD) plus AMG 386 or placebo in women with recurrent, partially platinum sensitive or resistant epithelial ovarian, primary peritoneal, or fallopian tube cancer.

Dr. Annette Bicher - Morphotek - MORAb003-003 - A randomized, double-blind, placebo-controlled study of the efficacy and safety of MORAb-003 (farletuzumab) in combination with paclitaxel therapy in subjects with first platinum-resistant or refractory relapsed ovarian cancer.

Dr. Annette Bicher - Morphotek - MORAb003-004 - A randomized, double-blind, placebo-controlled, phase III study to assess the efficacy and safety of weekly farletuzumab (MORAb-003) in combination with carboplatin and taxane in subjects with platinum-sensitive ovarian cancer in first relapse.

Endometrial Cancer

Phase I
Dr. John Elkas - Walter Reed - E39 Phase Ib trial of folate binding protein (FBP) peptide (E39) vaccine in ovarian and endometrial cancer patients.

Prospective/Retrospective Studies

Dr. John Elkas - Walter Reed - Tissue and data acquisition for the study of gynecologic disease.

Dr. John Elkas - Precision Therapeutics - A non-interventional, longitudinal, multi-center initiative examining outcomes associated with the use of the ChemoFx Assay in solid tumor malignancies.

Dr. Walter von Pechmann - Natural history of urinary symptoms in women receiving paclitaxel/carboplatin for treatment of gynecologic cancers.

Dr. John Elkas - NCI - In vitro evaluation of binding of optical imaging compounds to human epithelial ovarian adenocarcinoma tissue specimens.

Dr. Annette Bicher - Caris Dx - A registry of the Target Now test results (biomarker expression patterns) for evaluation of correlation with clinical outcomes for cancer patients.
Inova/Walter Reed: Women’s Translational Research Center

The Women’s Health Integrated Research Center at Inova Health System (WHIRC) is a state-of-the-art research center newly opened in October 2010. The Lab has been established by the Department of Defense Gynecologic Cancer Center of Excellence (GYN-COE) for the purpose of identifying molecular alterations associated with gynecologic cancer and facilitating the development of novel early detection, prevention and treatment strategies for the management of these diseases.

The ongoing work and strategic mission of the Center is in alignment with Inova Health System’s commitment to developing clinically relevant applications for personalized medicine. The science of biomarker identification and validation enabled by the WHIRC at Inova Health System offers abundant promise for making inroads to novel molecular-based diagnostics and classification of pathologies unique to women’s health. These studies are expected to lead rapidly to translational applications that can be used by doctors for personalizing care that is optimized for the individual. These applications include the ability to:

• Diagnose cancer at its earliest and most manageable stages
• Provide prognostic information on individual patients
• Determine which patients will benefit most from a given therapy
• Provide improved and early assessment of individual patients’ responses to therapy
• Identify patients who can be treated effectively with minimally toxic therapies
• Stratify patients to determine those potentially lethal pathologies that would require intensive and aggressive clinical interventions
• Identify new drug targets
• Enhance the understanding of how therapies work at the cellular level

The same strategies and state-of-the-art technologies employed for cancer biomarker research can also be applied to other areas of women’s health. WHIRC at Inova Health System will be investigating perinatal diseases and maternal fetal health. Since Inova Fairfax Hospital cares for the largest population of gynecologic cancer patients in the region, and has one of the largest high-risk perinatal units in the country, having access to this level of women’s research and the clinical trials that this research will enable, will benefit both patients and scientists.

The lab within the Research Center houses high-tech research equipment including two 5500xl SOLiD second generation genomic sequencers. In addition, the lab represents one of the world’s first sites to receive the third generation single molecule genome sequencers in early 2011 from Pacific Biosciences. Each of these sequencers will have the capacity to sequence the entire genome of human biologic samples.

Inova is very pleased to advance women’s research in association with the Women’s Health Integrated Research Center at Inova Health System.
Philanthropy

As a not-for-profit hospital, Inova Fairfax Hospital Women’s Center has a commitment to meet the healthcare needs and improve the health status of the community we serve. We rely on generous charitable gifts to enhance many of our programs, particularly the Gynecology Oncology Program and to fund cutting-edge research and technologies which are critical to patients in our region. To learn more about supporting the Gynecologic Oncology Program and the Women’s Health Integrated Research Center, please contact the Inova Health System Foundation at 703-776-6693 or dayna.kuhar@inova.org.

To refer a patient to our Gynecologic Oncology Program, please contact our patient navigator, Marcy Osterhaus, RN, at 703-776-2901.

For more information about our program, visit inova.org/gyn-onc.
Inova Fairfax Hospital Women’s Center

World-Class Women’s Care, Conveniently Located in Northern Virginia

Inova Fairfax Hospital Women’s Center has a commitment to providing the highest quality gynecologic cancer care for women. We treat women throughout our region and beyond, making us a destination hospital for compassionate cancer care.

To refer a patient to our Gynecologic Oncology Program, please contact our patient navigator, Marcy Osterhaus, RN, at 703-776-2901.

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