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In FY 16, 6 obstetricians/gynecologists who practice in the community joined our department. They had been part of Temple Physicians, Inc. (TPI) and as of December 1, 2016 they joined the full-time faculty of the Lewis Katz School of Medicine. We now have an increased number of practice sites in Philadelphia and its suburbs. In addition to our clinics at Temple University Hospital we offer obstetrics and gynecology services in the Roxborough area of Philadelphia, the Port Richmond area of the City (at Northeastern Ambulatory Care Center), North Philadelphia (at Temple’s Episcopal Campus), in Center City, at the Bustleton Avenue TPI practice site, in the Fishtown area of the City (Palmer House) and in the suburbs at Fort Washington. We also offer specialty services at Chestnut Hill Hospital, Holy Redeemer Hospital and the Temple Health Center on York Road in Elkins Park. In FY16 we had a total of 48,365 patient visits at these sites; 45% more than in FY15. Most of this growth was due to the new physicians that joined the department at mid-year.

This year we were fortunate to recruit Karen L. Houck, MD to our faculty. She came to us from Rutgers University School of Medicine, Newark where she was the Director of Robotic Surgery at University Hospital. Dr. Houck is a graduate of the State University of New York at Buffalo where she also completed a residency in obstetrics and gynecology. She is a board certified gynecologic oncologist having completed her training in that field at the Massachusetts General Hospital. Dr. Houck will serve as the director of the Division of Gynecologic Oncology at Temple University Hospital and will direct the robotic gynecologic surgery training of our residents and fellows.

The department faculty participates in numerous intra- and extra-mural committees. Of note is that Dr. Gail Herrine, who is the medical director of the post-partum unit and medical director of
lactation, was appointed to the Board of Directors of the Breast Feeding Resource Center. As a member of the Breastfeeding Expert Work Group of the American College of Obstetricians and Gynecologists she was appointed representative to the United States Breast Feeding Committee. Dr. Juan Diaz, who is the director of the General Obstetrics and Gynecologic Division, serves on the Board of Directors of the Society of Latin Ibero-american Medical Professionals. Dr. Laura Goetzl, Vice-Chair for Research, continues to serve in 2 NIH study sections. Dr. Hernandez continues to serve on the Board of Regents of the American College of Surgeons, the Board of Directors of the American Cancer Society East Central Division and the Board of Directors of the Philadelphia County Medical Society and of its Foundation (Pfahler Foundation).

The department was recognized by the Joint Commission on Accreditation of Health Organizations as a top performer in perinatal care. We were named a Blue Distinction Center by Independence Blue Cross for delivering quality maternity care safely and effectively.

Major advances were made towards obtaining Baby-Friendly Hospital Certification status. Dr. Gail Herrine, partnered with Temple Hospital and we were awarded a major grant from the Kellogg Foundation. FY-16 was the first year of the grant. Initial efforts have focused on promoting immediate skin to skin (mother and infant) on labor and delivery, reducing maternal and child separation, prenatal education and promoting breastfeeding. Success will be tracked through improvement in our mPINC score (baseline score was 62 in 2013). We have completed the 2015 questionnaire and are awaiting the results from the CDC. Funds obtained through crowd funding and some of the Kellogg grant money was used to support a safe sleep program (Safe T), which provides a box (with a mattress and other goodies) to all of our babies to sleep in after discharge. This program was modeled after a Finnish program that was shown to decrease infant mortality. In addition to being a device that we hope will decrease SIDS rates in Philadelphia; we also hope it will promote breastfeeding by providing a convenient, safe place for the baby to sleep that could be close to wherever the mother is.

We received a record 960 applications for our five PGY-1 residency positions and interviewed 104 highly qualified applicants. We ultimately ranked 96 applicants and matched in the top third of our rank list. Several of our residents presented their research projects at regional and national meetings. One of our senior residents, Dr. Jessica Murphy, was the winner of the 2016 S. Leon Israel Award which is awarded by the Philadelphia Obstetrical Society to recognize excellence in research by a resident in the discipline of obstetrics and gynecology. Her research project (Delivering bad news in obstetrics and gynecology residency: a pilot curriculum to address identified training gaps) was selected from among those presented by residents from all the obstetrics and gynecology residency in the Delaware Valley.

In 2015, we received approval from the American Board of Obstetrics and Gynecology (ABOG) to begin an accredited fellowship training program in Gynecologic Oncology. The fellowship spans the campuses of Temple University Hospital and the Fox Chase Cancer Center. We accept one fellow each year. The program is 3 years, with the first year being dedicated to research activities. Our inaugural fellow is Jennifer Brown, MD who received her residency training at the University of Alabama. She spent her first year in the laboratory working with James Duncan, PhD on a project examining the kinome in patients with platinum resistant ovarian cancer. Our second fellow is Dr. I. Daniel Benrubri, who comes to us from the University of
Florida. He started on July 1, 2016 in the laboratory of Denise Connolly, PhD and is devoting his research year to a project examining the sensitivity of patient derived ovarian cancer cells and xenografts to targeted inhibition by PARP and HSP90. Dr. Brown is entering the clinical phase of her fellowship and will alternate months between Temple University Hospital and Fox Chase Cancer Center.

Dr. Goetzl continues her NIH/NICHD–funded (R01) study of gestational age variation in human placental transport mechanisms and the Gates Foundation-funded research to identify non-invasive markers of fetal brain development. She continues to be on several of NIH study sections. Dr. Deborah Nelson continues with her NIH-funded (R21) study of unplanned pregnancies among our Family Planning Clinic patients (Perceptions of community-level violence and unintended pregnancy among urban women). Dr. Marisa Rose is a co-investigator on a NIH-funded study of the effects of an electronically-mediated, pregnancy and postpartum, behavioral intervention program on changes in weight and cardiometabolic biomarkers. We continue to be a research site for several pharmaceutical industry-sponsored clinical trials. We continue to participate in NIH-funded Gynecologic Oncology Group clinical trials. Six gynecologic oncology clinical trials are currently open for research subject recruitment. Our faculty continues to be academically productive with publications in peer-reviewed journals and presentations at national meetings, which are listed in this report.

Our faculty clinical productivity continues to be high with total RVUs in FY 16 being 32% higher than in FY 15 (7% after excluding RVUs of community physicians that joined in December 2016). Our hospital patients’ average length of stay continues to be low at 2.6 days. We surpassed our budgeted clinical revenue by 36% (16% after excluding revenue of community physicians that joined in December 2016).

In FY16 there were 2855 obstetrical deliveries of which 816 (28.6%) were delivered by cesarean section, which is below the national average. In FY16 there were 7599 visits to our obstetrical triage unit. The complexity of the obstetrical cases continues to be high with 1839 visits to our high-risk obstetrical service. There were an additional 1041 visits for genetic counseling or screening. In FY16 we performed over 10,000 obstetrical ultrasounds, 641 obstetrical Doppler studies, and 2595 biophysical profile/non-stress fetal tests. The total number of tests and procedures performed at our perinatal center in FY16 was 7% more than in FY15.

In FY16, 713 major and 797 minor gynecologic procedures were performed at Temple University Hospital. This includes 97 major surgical procedures for suspected or documented gynecologic malignancies. One hundred and forty-six abdominal, 138 laparoscopic and 22 trans-vaginal hysterectomies were performed. Fifty-six of the laparoscopic hysterectomies were performed with robotic assistance. There were 67 procedures for urinary incontinence and/or pelvic reconstructive surgery performed at Temple University Hospital in FY16. In addition to the laparoscopic hysterectomies, there were 92 operative and 66 diagnostic laparoscopy procedures. We also performed 385 hysteroscopies.

Our residents continue to rotate to Holy Redeemer Hospital where they gain experience in reproductive endocrinology and infertility. In FY16, 408 major gynecological surgical procedures and 1329 minor procedures were performed at Holy Redeemer Hospital. There were
107 operative laparoscopic procedures, 409 operative hysteroscopies, 65 abdominal, 18 laparoscopic and 20 vaginal hysterectomies in FY16 at Holy Redeemer Hospital. In addition, 11 surgical procedures were performed for urinary incontinence or pelvic floor reconstruction.

In the months, years and decades to come we will continue to strive to completely fulfill our mission:

TO BE A LEADER IN OUR COMMUNITY, CITY AND REGION IN OB/GYN CLINICAL CARE, TEACHING AND RESEARCH AND BY DOING SO BETTER SERVE OUR VULNERABLE PATIENT POPULATION
II. FACULTY

A. SUMMARY

Enrique Hernandez, MD, FACOG, FACS
Abraham Roth Professor and Chairman

1. Full-Time Faculty

Division of Gynecologic Oncology
   Karen L. Houck, M.D., (Associate Professor), Director
   Enrique Hernandez, M.D. (Professor)

Division of Maternal-Fetal Medicine
   Laura Goetzl, M.D., MPH, (Professor), Director, Vice-Chair for Research
   Laura Hart, MD (Assistant Professor)
   Wadia Mulla, MD (Assistant Professor)

Urogynecology and Pelvic Reconstructive Surgery
   Carol Glowacki, MD, (Assistant Professor), Director

Division of Gynecology & General Obstetrics
   Juan Diaz, M.D., (Assistant Professor), Director
   Arleen Ayala, M.D. (Assistant Professor)
   Bruce Carnivale, D.O. (Assistant Professor)
   Gloria Diaz, M.D. (Assistant Professor)
   José De La Mota, M.D. (Assistant Professor)
   Shaliz Dolan, M.D. (Assistant Professor)
   Bethany Goins, D.O. (Assistant Professor)
   Gail Herrine, M.D. (Associate Professor)
   Amanda Horton, M.D. (Assistant Professor)
   Stacey Jeronis, M.D. (Associate Professor)
   Deslyn Mancini, M.D. (Asssitant Professor)
   Bruce Mabine, M.D. (Assistant Professor)
   Erin Myers, M.D. (Assistant Professor)
   Marisa Rose, M.D. (Associate Professor)
Anthony Milicia, M.D. (Assistant Professor)  
*Adjunct*  
Shwetha Shrivatsa, M.D. (Assistant Professor)  
Todd Stearns, D.O. (Assistant Professor)  
Henry Su, M.D. (Assistant Professor)  
Clinton Turner, M.D. (Assistant Professor)  

**Research**  
Sarmina Hassan, MBBS., PhD, (Assistant Professor),  

**Subtotal: 26**

2. **Part-Time Faculty**  

Division of Reproductive Endocrinology and Infertility  
Arthur Castelbaum, M.D., (Assistant Professor), Co-director  
Martin Freedman, M.D., (Assistant Professor), Co-director  

Division of Gynecology & General Obstetrics  
David Dzurinko, M.D. (Assistant Professor)  
Adrienne Ligouri, M.D  
Kathleen O’Neill, M.D.  
Gerald Reme, M.D. (Assistant Professor),  

**Subtotal: 6**

3. **Secondary Appointments**  

**Computer and Information Sciences**  
Jie Wu, PhD (Professor)  

**Epidemiology**  
Deborah Nelson, PhD (Associate Professor)  

**Department of Internal Medicine**  
Sharon Herring, M.D. (Associate Professor)  

**Fox Chase Cancer Center, Behavioral Medicine**  
Suzanne Miller, PhD (Professor)  

**Subtotal: 4**
4. **Affiliate Faculty**

   **Fox Chase Cancer Center**
   - Stephen Rubin, MD, (Professor), Chief Gynecologic Oncology
   - Christina Chu, MD, (Associate Professor)
   - Cynthia Bergman, MD, (Assistant Professor)
   - Stephanie King, MD, Associate Professor
   - Gina Mantia-Smaldone, MD, (Assistant Professor)

   **Subtotal: 5**

5. **Adjunct Faculty**

   - Abington Memorial Hospital
   - Crozer Chester Medical Center
   - Fox Chase Cancer Center
   - Geisinger Medical Center
   - Holy Redeemer Hospital
   - Jeanes Hospital
   - St. Luke’s Hospital
   - West Penn Hospital

   **Subtotal: 98**

**Total Number of Faculty: 139**

B. **NEW FACULTY**

Karen L. Houck, MD, a former Temple faculty member (2000-2005), board-certified in gynecologic oncology rejoined our faculty on June 1, 2016 as Associate Professor and Director of the Division of Gynecologic Oncology at Temple University Hospital. She was recruited from Rutgers University School of Medicine at Newark where she was the Director of Robotic Surgery.

C. **FACULTY DEPARTURES**

   J. Stuart Ferriss, MD, moved to Dell School of Medicine of the University of Texas at Austin where he will direct their Division of Gynecologic Oncology.

D. **HONORS/PRIZES**

   **Christina Chu, MD**

   Listed in Philadelphia Magazine “Top Doctors” 2016
Laura Hart, MD

Teaching Award Council of Resident Education in Obstetrics and Gynecology

Laura Goetzl, MD

Listed in Castle Connolly Philadelphia Top Doctors 2016
Listed in Best Doctors in America 2015-16

Enrique Hernandez, MD

Board of Directors East Central Division American Cancer Society
Board of Directors Philadelphia County Medical Society and the Society’s Pfahler Foundation
Board of Regents American College of Surgeons
Listed in Philadelphia Magazine “Top Doctors” 2016
Listed in Castle Connolly Philadelphia Top Doctors 2016
Listed in Best Doctors in America 2015-16

Stephanie A. King, MD

Listed in America’s Top Doctors 2016
Listed in Philadelphia Magazine “Top Doctors” 2016

Jessica Murphy, MD (PGY4)

S. Leon Israel Research Award of the Obstetrical Society of Philadelphia for best resident research paper, 2016

Erin Myers, MD

Association of Professors of Obstetrics and Gynecology Excellence in Teaching Award

Stephen Rubin, M.D.

Listed in America’s Top Doctors 2016
Listed in Philadelphia Magazine “Top Doctors” 2016

Rachel Shank, RN, OCN

Elected to Board of Directors of the Society of Oncology Nurses (SON), July 2015
III. RESEARCH
   A. Research Grants

1. Peer-Reviewed

Laura Goetzl, M.D.
Principal Investigator for R01HD069238: Gestational Age Variation in Human Placental Transport Mechanisms  Goal: To elucidate gestational age changes in placental transport proteins and to correlate with fetal levels of psychoactive substances. NIH/NICHD 04/01/2012-03/31/2017 (shared support with Shriners)

Principal Investigator for Grand Challenges Explorations Grant for Groundbreaking Research in Global Health and Development funded by the Bill & Melinda Gates Foundation. “Maternal Blood Biomarkers to Assess Fetal Neurodevelopment.”

Co-PI with Department of Internal Medicine: Targeting pregnancy-related weight gain to reduce disparities in obesity: a randomized control trial. The study is funded by the Health Resources and Services Administration (HRSA).

Enrique Hernandez, M.D.
Principal Investigator at Temple for NRG/Oncology (Gynecologic Oncology Group) clinical trials (per capita funding), July 2000 to present.

Deborah B. Nelson, PhD
Principal Investigator for R21 HD071200: Factors Predicting Unintended Pregnancy among Young, Urban Women.

Marisa Rose, MD
Co-PI with Department of Internal Medicine: The effects of an electronically-mediated, pregnancy and postpartum, behavioral intervention program on changes in weight and cardiometabolic biomarkers: Healthy4Baby. NIH

2. Commercial/Industrial/Governmental

Carol Ann Glowacki MD.
Principal Investigator: A single-blind, multi-center, randomized, controlled, non-inferiority clinical study to assess the safety and performance of the Neurotech Vital Compact device compared to the itouch Sure Pelvic Floor Exerciser for the treatment of stress urinary incontinence in female patients.

Enrique Hernandez, M.D.
Principal Investigator: GOG-3005: (AbbVie Study No.: M13-694) A Phase 3 Placebo-Controlled Study of Carboplatin/Paclitaxel With or Without Concurrent and Continuation Maintenance Veliparib (PARP inhibitor) in Subjects with Previously Untreated Stages III or IV High-Grade Serous Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer.
Juan Diaz Quinones, MD.
Principal Investigator: A Phase 2B Study to Evaluate the Safety and Efficacy of Elagolix in Pre-Menopausal Women with Heavy Menstrual Bleeding associated with Uterine Fibroids

B. TOTAL RESEARCH DOLLARS EXPENDED: $102,130 (includes NIH funding passed through Shriners)

C. DEPARTMENT MEMBERS SERVING AS GRANT/AWARDS REVIEWERS
   Laura Goetzl, MD, NIH Study Sections (Translational Research in Pediatrics and Obstetric Pharmacology, Behavioral Genetics and Epidemiology)

D. Journal Reviewers/Editorial Board

   American Journal Obstetrics and Gynecology
   Obstetrics and Gynecology
   Journal of Reproductive Medicine
   Gynecologic Oncology
   Pediatrics
   American Journal of Perinatology
   Anesthesiology
   Anesthesia & Analgesia
   British Journal of Obstetrics & Gynecology
   International Journal of Gynaecology and Obstetrics
   European Journal of Obstetrics, Gynecology and Reproductive Biology
   Obstetrics and Gynecology International (Editorial Board, Dr. Hernandez)
   New England Journal of Medicine
   Post-graduate Ob/Gyn (Editorial Board, Dr. Hernandez)
   International Journal of Gynecologic Cancer
   European Journal of Obstetrics, Gynecology and Reproductive Biology
   Medical Journals, Gynecology and Obstetrics: Open Access (Editorial Board, Dr. Hernandez)
   Frontiers in Pharmacology (Editorial Board, Dr. Goetzl)
   Up to Date
   Brain Research (Special Issue Editor, Dr. Goetzl)
   Reproductive Toxicology
   Translational Behavioral Medicine (Editorial Advisory Board, Dr. Hernandez)
IV. TEACHING PROGRAM

A. Professional Students

1. Medical Students

This program is directed by Dr. Marisa Rose and Dr. Shaliz Dolan is the Associate Clerkship Director. The site program directors contribute to program development, and other related matters. The final examination is given in the standardized format (shelf-exams). Questions for this examination have been revised. The students' performance in OB/GYN in the USMLE is satisfactory, and residency placement is excellent.

**Clinical Affiliates Used for Teaching Medical Students**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
<th>Hospital</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethany Perry, MD</td>
<td>Course Director</td>
<td>Department of OB/GYN</td>
<td>Abington Memorial Hospital</td>
<td>1235 Old York Road, Abington, PA 19001</td>
</tr>
<tr>
<td>Kelli Daniels, MD</td>
<td>Course Director</td>
<td>Department of OB/GYN</td>
<td>Crozer-Chester Medical Center</td>
<td>1 Medical Center Boulevard, Upland, PA 19013</td>
</tr>
<tr>
<td>James Anasti, M.D.</td>
<td>Program Director</td>
<td>Department of OB/GYN</td>
<td>St. Luke’s Hospital</td>
<td>801 Ostrum Street, Bethlehem, PA 18015</td>
</tr>
<tr>
<td>Andrew Sword, M.D.</td>
<td>Course Director</td>
<td></td>
<td>West Penn Hospital</td>
<td>4800 Friendship Avenue, Pittsburgh, PA 15224</td>
</tr>
<tr>
<td>Paul Swanson, M.D.</td>
<td>Course Director</td>
<td>Geisinger Medical Center</td>
<td></td>
<td>100 N. Academy Ave, Danville, PA 17822</td>
</tr>
<tr>
<td>Kathryn Abello, M.D.</td>
<td>Course Director</td>
<td>Lancaster General Hospital</td>
<td></td>
<td>964 Good Drive, Suite 11, Lancaster, PA 17604</td>
</tr>
<tr>
<td>Vahideh Ameri, M.D.</td>
<td>Course Director</td>
<td>Holy Redeemer Hospital</td>
<td></td>
<td>1648 Huntingdon Pike, Meadowbrook, PA 19046</td>
</tr>
</tbody>
</table>

a. Program Accomplishments:
1. Seven students from the class of 2016 applied for an Ob/Gyn residency.
2. FY15 is the thirteenth consecutive year of a successful OB/GYN sub-internship.
3. The web-based self-study modules and practice questions provided by the Association of Professors of Obstetrics and Gynecology is available to all our students.
4. The Blackboard site was redesigned to provide a central clearinghouse for all students enrolled in the MS-3 Ob/Gyn Clerkship. Links to the course syllabus, clerkship objectives, orientation training, educational materials, lecture slides and online learning modules ensure comparability in student education between sites.

   b. A longitudinal faculty outpatient experience for the MS-3 clerkship was piloted in 2015 and rolled out in 2016. Faculty members from the Lewis Katz School of Medicine at Temple University Hospital and satellite offices participate.

c. Lunch-time teaching sessions are held with the students every Wednesday at Temple University Hospital.

d. Faculty members from the Lewis Katz School of Medicine at Temple University Hospital lead the core lecture series every Friday afternoon and all Temple students in their OB/GYN block who are in Southeast Pennsylvania attend. The lectures are transmitted to all distant sites by video conferencing.

The following Temple University School of Medicine students were accepted into an Obstetrics and Gynecology residency in 2016:

<table>
<thead>
<tr>
<th>Name</th>
<th>Matched</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Kelly DiMattio</td>
<td>UT Austin</td>
</tr>
<tr>
<td>2 Shaina Feldman</td>
<td>Abington</td>
</tr>
<tr>
<td>3 Kaitlyn Ferrill</td>
<td>Abington</td>
</tr>
<tr>
<td>4 Sarah Moreland</td>
<td>Temple</td>
</tr>
<tr>
<td>5 Lisa Naujoks</td>
<td>Abington</td>
</tr>
<tr>
<td>6 Andrew Stahler</td>
<td>Richmond Univ Med Ctr- NY</td>
</tr>
<tr>
<td>7 Heather Winn</td>
<td>University Iowa</td>
</tr>
</tbody>
</table>

The following electives are available at Temple University Hospital and other Lewis Katz School of Medicine affiliates:

Temple University Hospital:

   Women’s Health
   Gynecologic Oncology
   Maternal Fetal Medicine
   Obstetrics and Gynecology Sub-internship
Urogynecology
Abington Memorial Hospital:
- Obstetrics and Gynecology
- Maternal Fetal Medicine
- Gynecologic Oncology
- Reproductive Endocrinology
Holy Redeemer Hospital:
- Reproductive Endocrinology & Infertility
St. Luke’s Hospital:
- Maternal Fetal Medicine
- Gynecologic Oncology
- Urogynecology
- Obstetrics and Gynecology Sub-internship
West Penn Medical Center:
- Gynecologic Oncology
- Maternal Fetal Medicine
- Reproductive Endocrinology
- Obstetrics and Gynecology Sub-internship
Fox Chase
- Gynecologic Oncology

2. Department of OB/GYN/RS’s Involvement with Other Professional Programs

a. Internal Medicine and Emergency Medicine residents of Temple University Hospital residency program spend time in our clinics. Family Practice and Emergency Medicine residents from Aria Health spend time in the labor and delivery unit and/or our clinics. We also have visiting residents from Family Practice and Internal Medicine from Crozer Chester Medical Center that enhance their education in the labor and delivery unit and/or our clinics.

b. Training site for Arcadia University Master of Genetic Counseling program.

c. Clinical training site for Salus University Physician Assistant Program. The PA students are integrated into the medical clerkship through an innovative curriculum supporting interprofessional education and collaboration.

3. Fellowship training

Fellowship Program in Gynecologic Oncology

In 2015, we received approval from the American Board of Obstetrics and Gynecology (ABOG) to begin an accredited fellowship training program in Gynecologic Oncology. Christina Chu, MD is the Program Director, and receives assistance from Karen Houck, MD. The fellowship spans the campuses of Temple University Hospital and the Fox Chase Cancer Center, combining the resources of a busy inner city academic hospital with an NIH designated comprehensive cancer center to provide excellent and diverse
educational experience for the fellows. We accept one fellow each year through the Match. The program is 3 years, with the first year being dedicated to research activities. The second and third years of the fellowship consist of monthly clinical rotations divided between the Fox Chase and Temple campuses. In addition to surgical cases and in/outpatient gynecologic oncologic care, fellows participate fully in the prescribing and ordering of chemotherapy, as well as consultation and planning for radiation therapy. Two off-service rotations on the Gastrointestinal Surgery Service at Fox Chase and the Surgical Intensive Care Unit at Temple University Hospital will round out the fellows’ clinical training.

The Fellows have protected didactic lectures once a week on average. In addition, they are the primary presenters at weekly Tumor Boards at both Temple and Fox Chase. Our Divisions have monthly joint tumor board as well as quarterly joint journal clubs.

Our inaugural fellow is Jennifer Brown, MD who received her residency training at the University of Alabama. She has spent her first year in the lab working with James Duncan, PhD on a project examining the kinome in patients with platinum resistant ovarian cancer. Our second fellow is Dr. I. Daniel Benrubbi, who comes to us from the University of Florida. He started July 1st of this year in the lab of Denise Connolly, PhD and is devoting his research year to a project examining the sensitivity of patient derived ovarian cancer cells and xenografts to targeted inhibition by PARP and HSP90.

The upcoming academic year will be a busy one, with Dr. Brown entering the clinical phase of her fellowship. We expect ongoing modifications of our planned educational program to achieve continued improvement and efficiency in our training. In addition, as ABOG is transitioning accreditation of all fellowships to the American Council on Graduate Medical Education (ACGME), we will be making application for a new accreditation over the summer of 2016. As the OBGYN residency makes application for an additional resident, we hope to also integrate a Temple resident into a formal Fox Chase Gynecologic Oncology rotation to enhance the educational experience for the housestaff. Our fellowship interviews will take place in July and August 2016 for a new fellow expected to enter the program in July of 2017.
4. **Residency Program**

Since 2011 Dr. Stacey Jeronis has led the Residency Program which continues to be a fully accredited four year program and consistently remains citation free with the annual RRC review. Dr. Marisa Rose has been appointed Associate Program Director and is responsible for the educational curriculum and organizing the educational conferences. Dr. Arleen Ayala is in charge of our clinical simulation program with frequent educational sessions in the simulation center. Jaclyn Feeney continues as our full time coordinator and has been instrumental in the stability and organization of our program.

Our residency is a competitive fully approved 4-year program with five residents at each level plus a 6th non-categorical (preliminary) intern. Last year we received 980 applications for our five positions and interviewed 104 highly qualified applicants. We ultimately ranked 96 applicants and matched in the top third of our rank list. In addition, Family Practice and Emergency Medicine residents rotate through our department.

**Clinical**

At Temple University Hospital the OB/GYN residents rotate through Obstetrics, Maternal-Fetal Medicine, Gynecology, Urogynecology, Night Float and Gynecologic Oncology. At Holy Redeemer Hospital they gain additional experience in Gynecologic Surgery (with emphasis in laparoscopy), Gynecologic Ultrasonography, and Reproductive Endocrinology and Infertility. Additional experience in Urogynecology is obtained at Temple’s Jeanes Hospital. Exposure to pregnancy terminations occurs at Temple University Hospital and at the Philadelphia Women’s Center. We have a busy Family Planning Clinic. Our chief residents spend time in the Breast Clinic with Dr. Kathleen Reilly. Residents may also be approved for a 5-week outside elective during their third year. During the last academic year Dr. Erin Cavanaugh did an away elective in Bolivia and upon her return gave a grand rounds presentation sharing her experience with the department.
**Education and Research**

Formal education presentations are held on Wednesday mornings from 7:30 AM to 9:30 AM to include Grand Rounds, Morbidity and Mortality Review, Journal Club, and Case Presentations. Third hour presentations typically involve review of ACOG practice bulletins and Chapter reviews from standard textbooks. The Gynecology Tumor Board meets every Wednesday from 10:30 AM to noon. Chairman rounds are on Tuesdays at 7:00 AM. Gynecology Oncology review occurs every Friday morning at 8:00 AM and Obstetrics review on Thursday evenings.

On December 9, 2015, we held our 55th Annual Isador & Rose Forman Symposium funded by the Forman family. Our visiting lecturer was Lee Learman, MD, PhD, Senior Associate Dean for Graduate Medical Education, Academic Affairs and Designated Institutional Officer at the Charles E. Schmidt School of Medicine, Florida Atlantic University. At this meeting our senior residents presented their research theses, which are listed below.

Elizabeth Andes, MD  
Evaluation of Nuanced Beliefs Concerning Abortion

Scott Jordan, MD  
Preparing for the First Milestone in Obstetrics and Gynecology: Room for Improvement?

Jessica Murphy, MD, MPH  
Delivering Bad News in Obstetrics and Gynecology Residency: A Pilot Curriculum to Address Identified Training Gaps

Manpreet Sen, MD  
Factors that Contribute to Discontinuation of Long-Acting Reversible Contraception

Alyssa Zackler, MD  
Clinical Chorioamnionitis and Myometrial Contractility: Mechanisms for Cesarean and Post-Partum Hemorrhage Risk

A number of our chief residents presented their research projects at local and national meetings this year.

Dr. Alyssa Zackler was the winner of the Best Resident Research Award for our department and presented her research at Society of Maternal Fetal Medicine annual meeting February 5, 2015.

Dr. Jessica Murphy was the winner of the S. Leon Israel Award which is awarded by the Philadelphia Obstetrical Society to recognize excellence in research in the discipline of
obstetrics and gynecology. The award is open to all current obstetrics and gynecology residents in programs associated with the Obstetrical Society of Philadelphia. Dr. Murphy presented her work at the Resident Day Symposium and at President’s Night, Thursday, May 7, 2015.

Dr. Manpreet Sen presented her research as a poster presentation at the Annual ACOG Clinical and Scientific Meeting held in Washington D.C. May 2016.

Dr. Scott Jordan had an oral presentation at the March 2016 APGO/CREOG Annual Meeting held in New Orleans, LA

*Academic profile*

There is significant scholarly activity among residents with several publications in peer-reviewed journals.

**Resident Publications and Presentations FY15:**


8. **Murphy J**, Jeronis SL, **Kean K**, Rose M. Delivering bad news in obstetrics and


**Future Plans**

In the Next Accreditation System, we are evaluating residents using Milestones and the appointed Clinical Competency Committee meets twice yearly to review the performance of each resident. We have also appointed faculty and residents to participate in a Program Evaluation Committee. This committee continues to plan, develop, implement, and evaluate educational activities of our residency program to promote continued improvement and innovation in the department. Additionally, we have identified Subspecialty Educators in all of the OB/Gyn subspecialties. In partnership with Dr. Jeronis, these chosen educators oversee the specific educational content and will help develop and implement curriculum in their subspecialty area.

We were recently approved by the RRC for a three year gynecologic oncology fellowship that began in 2016. This is a 3-year fellowship program with clinical time spent at both Fox Chase and Temple Hospital. Given the approval of the fellowship at Fox Chase we plan to request an increase in our resident complement so that we can integrate the health system from a gynecologic oncology perspective by sending a resident to that site. We believe this will be beneficial to the health system from a strategic growth and development standpoint.

One of our top priorities this year is to focus on resident well-being within our department. The second annual resident retreat is planned for November 20, 2016. During this retreat the residents will focus on team building, conflict resolution as well as mindfulness to enhance their overall educational experience both clinically and professionally.

<table>
<thead>
<tr>
<th>Residency Program</th>
<th>ACGME Full Accreditation.</th>
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<tbody>
<tr>
<td>PGY-IV</td>
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<tr>
<td>PGY-III</td>
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<tr>
<td>PGY-II</td>
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<tr>
<td>PGY-I</td>
<td>6</td>
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<td><strong>TOTAL</strong></td>
<td><strong>21</strong></td>
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## Graduating Residents June 2016

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Elizabeth Andes, MD</td>
<td>Private Practice</td>
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<tr>
<td></td>
<td>Women's Health Center of Lebanon</td>
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<tr>
<td></td>
<td>Lebanon, Pennsylvania</td>
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<tr>
<td>Manpreet Sen, MD</td>
<td>Private Practice</td>
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<td></td>
<td>Kaiser Permanente Medical Group</td>
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<td></td>
<td>Washington, DC</td>
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<tr>
<td>Scott Jordan, MD</td>
<td>Minimally Invasive and Advanced Pelvic Surgery</td>
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<td></td>
<td>Fellowship</td>
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<td></td>
<td>Fox Chase Cancer Center</td>
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<td>Philadelphia, Pennsylvania</td>
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<tr>
<td>Alyssa Zackler, MD</td>
<td>Private Practice</td>
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<td></td>
<td>Henry Mayo Newhall Memorial Hospital</td>
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<td></td>
<td>Valencia, California</td>
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<tr>
<td>Jessica Murphy, MD</td>
<td>Private Practice</td>
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<tr>
<td></td>
<td>University of Virginia Physician’s Group</td>
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<td></td>
<td>Charlottesville, Virginia</td>
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**Chief Residents 2015-16 at the 55th Forman Ob/Gyn Symposium (left to right: front row – Drs. Jordan, Zackler, Hernandez; back row - Drs. Murphy, Sen, Andes)**
**Incoming Interns June 2016**

| Sarah Ackroyd, MD, MPH | Holly Boyle, MD  
<table>
<thead>
<tr>
<th>University of Rochester</th>
<th>Pennsylvania State University</th>
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</thead>
</table>
| Samantha Jagannathan, MD | Sarah Moreland, MD  
| St. Louis University | Temple University |
| Katyayani Papatla, MD | Leah Roberts, MD  
| University of Miami | Florida Atlantic University |
V. GRAND ROUNDS

GRAND ROUNDS PROGRAM
Marisa Rose, MD, Grand Rounds Director
Continuing Medical Education (CME) Program 2015-2016

Residents as Teachers (lecture 2)
When: Wed, July 1, 2015, 7:30am – 8:30am
Dr. Melissa Blum

Basics of Chemotherapy for Gynecologic Malignancies
When: Wed, July 1, 2015, 8:30am – 9:30am
Dr. Enrique Hernandez

Databases for Health Services Research in Obstetrics and Gynecology
When: Wed, July 8, 2015, 7:30am – 8:30am
Dr. Ellen Tedaldi

Journal Club–Obstetrics
When: Wed, July 8, 2015, 8:30am – 9:30am
Dr. Kathryne Sanserino, MD

OB/Gyn & Oncology Case Presentations
When Wed, July 15, 2015, 7:30am – 9:30am
Drs. Sen, Murphy, Jordan and Stearns

The Ongoing Conundrum of Fetal Growth Restriction
When: Wed, July 22, 2015, 7:30am – 8:30am
Dr. Emily Su

Pelvic Anatomy
When: Wed, July 22, 2015, 8:30am – 9:30am
Dr. Carol Glowacki

Recurrent Pregnancy Loss
When: Wed, July 29, 2015, 7:30am – 8:30am
Dr. Martin Freedman

Journal Club Review
When Wed, July 29, 2015, 8:30am – 9:30am
Dr. James S. Ferriss
Infant Safety in the Hospital Setting and the Prevention of Sleep Related Infant Deaths
When Wed, August 5, 2015, 7:30am – 8:30am
Dr. Eileen Tyrala

Understanding Human Milk Banking
When Wed, August 5, 2015, 8:30am – 9:30am
Kimberly Updegrove, RN, CNM, MPH, MSN

Case Presentations
When Wed, August 12, 2015, 7:30am – 8:30am
Drs. Sen, Murphy Jordan and Stearns

Journal Club – Ob/Gyn
When Wed, August 12, 2015, 8:30am – 9:30am
Dr. Lauren Goetsch

M&M Ectopic Pregnancy
When Wed, August 19, 2015, 7:30am – 8:30am
Dr. Lauren Mayer

PGY2 Residents Research Presentation
Wed, August 19, 2015, 8:30am – 9:30am
Drs. Eliasinski, Goetsch, Maramara, Martin and Sanserino

SIM
When Wed, August 26, 2015, 7:30am – 9:30am
Dr. Ferriss

Utilization Review
When Wed, September 2, 2015, 7:30am – 8:30am
Dr. Carnivale

Postpartum Hemorrhage & OB massive Transfusion Protocol: Putting it all Together
When Wed, September 2, 2015, 8:30am – 9:30am
Dr. Wadia Mulla

Postpartum Defecation Disorders
When Wed, September 9, 2015, 7:30am – 8:30am
Dr. Ron Schey

Intern Workshop
When Wed, September 9, 2015, 8:30am – 9:30am
Dr. Laura Goetzl

**Patient Safety symposium** (Ernie Auditorium)  
When Wed, September 16, 2015, 8am – 9am  
“In harm’s Way: Heuristics, Habits & Happenstance in Achieving Patient Safety”  
RAMABADRAN LECTURE

**PGY3 Research Presentations**  
When Wed, September 16, 2015  
Drs. Arnett, Cavanaugh, Guitarte, Maher, Zitsman

**OB, Gyn & Oncology Case Presentations**  
When Wed, September 23, 2015, 7:30am – 8:30am  
Drs. Sen, Murphy Jordan and Stearns

**Journal Club – Ob/Gyn**  
When Wed, September 23, 2015, 8:30am – 9:30am  
Dr. Lauren Maramara

**SIM**  
When Wed, September 30, 2015, 7:30am – 8:30am  
Dr. Ferriss

**Chief Presentations**  
When Wed, October 7, 2015, 7:30am – 8:30am  
Drs. Andes, Jordan, Murphy, Sen, Zackler

**Menopause Treatment**  
When Wed, October 7, 2015, 8:30am – 9:30am  
Dr. Myers

**Updates in HIV Testing**  
When Wed, October 14, 2015, 7:30am – 9:30am  
Dr. Ellen Tedaldi

**SIM**  
When Wed, October 21, 2015, 7:30am – 9:30am  
Dr. Ferriss

**Cost Effective Gyn robotic Surgery**  
When Wed, October 28, 2015, 7:30am – 8:30am  
Dr. Kathy Huang

**Journal Club-Ob/Gyn**  
When Wed, October 28, 2015, 8:30am – 9:30am
Dr. Sanserino

**Targeted Therapeutics in Gynecologic Cancers**  
When: Wed, November 4, 2015, 7:30am – 8:30am  
Dr. Ferriss  
*Interview Day*

**M&M Case Presentations**  
When: Wed, November 11, 2015, 7:30am – 8:30am  
Dr. Arnett

**Journal Club - Gyn**  
When: Wed, November 11, 2015, 8:30am – 9:30am  
Dr. Lauren Goetsch

**The Evil Triad: Vulvodynia, Bladder Pain Syndrome and Pelvic Floor Dysfunction**  
When: Wed, November 18, 2015, 7:30am – 8:30am  
Dr. Carol Glowacki  
*Interview Day*

**Resident MFM Q&A**  
When: Wed, November 25, 2015, 7:30am – 8:30am  
Dr. Laura Goetzl

**CREOG Review - Genetics**  
When: Wed, November 18, 2015, 8:30am – 9:30am  
Dr. Wadia Mulla

**Vulvar Cancer**  
When: Wed, December 2, 2015, 7:30am – 8:30am  
Dr. Enrique Hernandez  
*Interview Day*

“The Natives are Restless and the Immigrants don’t’ speak their language.”  
When: Wed, December 9, 2015, 8:00am – 9:00am  
Dr. Marisa Rose

**Isador Forman Lecture – “The Making of an Obstetrician/Gynecologist: Fulfilling our Commitment to Women’s Health”**  
**Guest Speaker: Dr. Lee Learman**  
When: Wed, December 9, 2015, 11:30am – 12:30am

**Fertility Preservation**
When Wed, December 16, 2015, 7:30am – 8:30am
Dr. Castelbaum
*Interview Day

**University Holiday – Cancelled**
When Wed, December 23, 2015

**University Holiday - Cancelled**
When Wed, December 30, 2015

**Hematologic Diseases in Pregnancy**
When Wed, January 6, 2016 7:30am – 8:30am
Dr. Goetzl
Interview Day

**CREOG Review - Oncology**
When Wed, January 13, 2016 7:30am – 8:30am
Dr. James Ferriss

**CREOG Review - Urogynecology**
When Wed, January 13, 2016 8:30am – 9:30am
Dr. Glowacki

**CREOG Review – Reproductive Endocrinology & Infertility**
When Wed, January 20, 2016 7:30am – 9:30am
Dr. Arthur Castelbaum

**Do LGBTQ Patients Get Pregnant?**
When Wed, January 27, 2016 7:30am – 8:30am
Randi Singer, CNM, M.Ed

**Contraception**
When Wed, January 27, 2016 8:30am – 9:30am
Dr. Juan Diaz

**Faculty Development: Updates to Health Maintenance in Epic – Implications for OB/Gyn Providers**
When Wed, February 3, 2016 7:30am – 8:30am
Dr. David Fleece

**Resident Wellness Day**
When Wed, February 3, 2016 7:30am – 8:30am

**Rank List Day**
When Wed, February 10, 2016 7:30am – 8:30am
Neonatal and Perinatal Palliative Care  
When Wed, February 17, 2016 7:30am – 8:30am  
Dr. Michael Spear

Journal Club - GYN  
When Wed, February 17, 2016 8:30am – 9:30am  
Dr. Eliasinski

Inter-disciplinary M&M  
When Wed, February 24, 2016 7:00am – 8:00am  
Dr. Zitsman, Dr. Golberg (Surgery) and Radiology

Case Presentations  
When Wed, February 24, 2016 8:00am – 9:00am  
Drs. Jordan and Sen

Management of Common Breast Problems for the Gynecologist  
When Wed, March 2, 2016 7:30am – 8:30am  
Dr. Kathleen Reilly

Everything you ever needed to know about neonatology….well not exactly  
When Wed, March 2, 2016 8:30am – 9:30am  
Dr. Kirstie Marcello

SIM  
When Wed, March 9, 2016 7:30am – 9:30am

M&M  
When Wed, March 16, 2016 7:30am – 8:30am  
Drs. Sanserino and Goetsch

Flipped Classrooms  
When Wed, March 16, 2016 8:30am – 9:30am  
Dr. Marisa Rose

Chief Residents Case Presentations  
When Wed, March 23, 2016, 7:30am – 9:30am  
Dr. Jordan and Sen

Updates in Breast Imaging for the Ob/Gyn-Don’t Be “Dense”  
When Wed, March 30, 2016 7:30am – 8:30am  
Dr. Sharon Mass
**Obstetric Anesthesia**
When Wed, March 30, 2016 8:30am – 9:30am
Dr. Sumita Bhambhani

**Healthcare Reform: Financial & Patient Safety Implications**
When Wed, April 6, 2016 7:30am – 8:30am
Dr. Thomas Westover

**Journal Club**
When Wed, April 6, 2016 8:30am – 9:30am
Dr. Sarah Martin

**Improving Communications on Labor & Delivery using Patient-Centered Rounds**
When Wed, April 13, 2016 7:30am – 8:30am
Dr. Jessica Murphy

**Bleeding, Infection, Damage to Adjacent Organs: Wait….What?!!**
When Wed, April 13, 2016 8:30am – 9:30am
Dr. Shaliz Dolan

**SIM**
When Wed, April 20, 2016 7:30am – 9:30am

**OB/Gyn Physician Workflow Demos**
When Wed, April 27, 2016 7:30am – 8:30am
Bernadette Sanabria

**Bolivia Presentation**
When Wed, April 27, 2016 8:30am – 9:20am
Dr. Erin Cavanaugh

**Women’s Health in Bolivia: Notes from a Month Abroad**
When Wed, May 4, 7:30am – 8:30am
Dr. Erin Cavanaugh

**Case Presentations**
When Wed, May 4, 8:30am – 9:30am
Dr. Cavanaugh

**QA/QI Project - Review of Practices for Making Follow-up Appointments Postpartum**
When Wed, May 11, 2016 7:30am – 8:00am
Dr. Andes
**QA/QI Project – Delays in Induction of Labor in Primapara**  
When Wed, May 11, 2016 8:00am – 8:30am  
Dr. Jordan

**Journal Club - Obstetrics**  
When Wed, May 11, 2016 8:30am – 9:30am  
Dr. Maramara

**SIM**  
When Wed, May 18, 2016 7:30am – 9:30am

**QA/QI Project**  
When Wed, May 25, 2016 7:30am – 8:00am  
Dr. Sen

**QA/QI Project**  
When Wed, May 25, 2016 8:00am – 8:30am  
Dr. Zackler

**LGBT Health**  
When Wed, May 25, 2016 8:30am – 9:30am  
Dr. Lin Wang

**QA/QI Project – Implementation of Gardasil Vaccination in Family Planning Clinics**  
When Wed, June 1, 2016 7:30am – 8:30am  
Dr. Zackler

**Pregnancy Related Dermatoses**  
When Wed, June 1, 2016 8:30am – 9:30am  
Dr. Adaobi Nwaneshiudu

**Billing and Coding**  
When Wed, June 8, 2016 7:30am-8:30am  
Dr. Erin Myers

**Half the Sky: Turning Oppression into Opportunity for Women Worldwide, by Nicholas Kristof**  
When Wed, June 8, 2016 8:30am-9:30am

**Welcome New Interns**  
When Wed, June 15, 2016 7:30am – 8:30am

**Medical Student Annual Review: Residents as Teachers**  
When Wed, June 15, 2016 8:30am – 9:30am
Dr. Marisa Rose

**TUH Billing and Compliance**
When Wed, June 22, 2016 7:30am – 8:30am

**Pregnancy & Diabetes**
When Wed, June 22, 2016 8:30am – 9:30am
Dr. Gary Scheiner, MS, CDE

**Diseases of the Vulva**
When Wed, June 29, 2016 7:30am – 8:30am
Dr. Enrique Hernandez

**Residents as Teachers – Medicine vs Ob Faculty**
When Wed, June 29, 2016 8:30am – 9:30am
Dr. Marisa Rose

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Dr. Lee Learman, Senior Associate Dean for Graduate Medical Education, Academic Affairs and Designated Institutional Officer at the Charles E. Schmidt School of Medicine, Florida Atlantic University, 55th Forman Lecturer
VI. CLINICAL PROGRAMS

A. DIVISIONS REPORT

1. Gynecologic Oncology

The Division of Gynecologic Oncology counts with two gynecologic oncologists: Enrique Hernandez, MD, FACOG, FACS and Karen L. Houck, MD, FACOG. The Division counts with two oncology nurses and two part-time medical assistants. In addition to the gynecologic oncologists, an Ob/Gyn colposcopist staffs the Division’s colposcopy clinic. The mission of the Division is to provide comprehensive care to women with malignant and premalignant gynecologic conditions within the Temple Health Care System in partnership with our colleagues at the Fox Chase Cancer Center. The gynecologic oncologists perform surgery ranging from minimally invasive (including robotic-assisted) to radical surgery (including intestinal and urological). Difficult or high-risk surgery for benign gynecologic pathology is also performed, as well as laser surgery of the lower genital tract.

Clinical

At Temple University Hospital the Division utilizes two days (Tuesdays and Thursdays) in the operating room for open surgery and 1-2 days (Mondays and Fridays) for robotic-assisted surgery. In 2010 we launched our gynecologic oncology robotic-assisted surgery program. In 2012 Temple University Hospital acquired three state-of-the-art, double console Da Vinci SI robots. Two state-of-the-art operating rooms for robotic surgery were built and became fully operational in April 2013. In 2014 Temple University Hospital was the first in the region to acquire the newest Da Vinci Xi robotic surgery system. The Division of Gynecologic Oncology provides outpatient and inpatient chemotherapy for women with gynecologic cancers. Approximately 400 chemotherapy treatment cycles were administered to women with gynecologic cancer at the Fox Chase Cancer Center at Temple University Hospital in FY16. The Division of Gynecologic Oncology cooperates with the radiation oncologists in providing radiation therapy to women with gynecologic malignancies. On any given week there are approximately a dozen women receiving radiation therapy for gynecologic malignancies. We perform the placement of the hardware for gynecologic high-dose rate brachytherapy in conjunction with the radiation oncologists. We perform difficult intrauterine implants under ultrasound guidance.

The Division has separate Colposcopy and Tumor Clinics. The Colposcopy Clinic meets on Monday afternoon on the 5th floor of the hospital Zone B. Over one dozen patients are seen at each clinic session. The clinic is staffed by the gynecologic oncologists and by an obstetrician/gynecologist experienced in colposcopy. A weekly multidisciplinary conference reviews colposcopy clinic cases. We also have a Wednesday afternoon session where the chief resident on the oncology service discusses with the patients the Pap smear diagnosis, biopsy results, and treatment plans as established by the Division faculty. Cryocautery continues to be used in the clinic to
treat cervical dysplasia when appropriate. However, the residents are exposed to all the modern diagnostic and treatment modalities to include laser, LEEP, and conization. The Tumor Clinic meets on Friday afternoon at the Temple Cancer Center (4th floor Ambulatory Care Center). This provides the patients who are undergoing cancer therapy with on-site laboratory, pharmacy, social work support, nutritionist and infusion capabilities.

The gynecologic oncologists also see patients in Zone B of Temple University Hospital, one-half day session a week. Even though the bulk of the clinical efforts of the Division are at Temple University Hospital, consultation services continue to be provided at Holy Redeemer Hospital and at Chestnut Hill Hospital. The Division is able to provide excellent care to over 70 patients each week at the above mentioned sites. The Division faculty members performed over 125 major surgical procedures in FY16 for gynecologic cancer or suspected gynecologic malignancy.

**Education**

All third-year medical students assigned to Temple University Hospital spend two weeks in the Gynecologic Oncology Service. Teaching/work rounds by the attending staff with the residents and the students are consistently done every day. The students are assigned patients to follow. They present and discuss their patients on rounds. The Division's faculty gives at least two formal lectures to the third-year medical students during each block. The Division Faculty gives at least one grand rounds lecture per quarter. The Division continues to have a weekly multidisciplinary gynecologic tumor board. All active cases are presented and discussed including patients receiving chemotherapy or radiation therapy. This is a teaching/working conference with participation of residents and students. On the first Thursday of every month the Division holds a joint Tumor Board conference with our colleagues at Temple’s Fox Chase Cancer Center campus.

Our residents participate not only in the surgical management of women with gynecologic malignancies, but also are involved in the administration of chemotherapy, the placement of hardware for brachytherapy and the surgical and medical management of complications due to the malignancy or its therapy. The residents are assigned two textbook chapters to read each week and a quiz and discussion is held every Friday.

In FY15 the American Board of Obstetrics and Gynecology approved our application to establish a 3-year gynecologic oncology fellowship at Temple. The fellowship program takes advantage of the resources and strengths of Temple University Hospital and Fox Chase Cancer Center. The fellows (one per year) spend one year doing research and two years on the clinical services. Our first fellow started in July 2015 and spent the year working in an ovarian cancer research laboratory at the Fox Chase Cancer Center. She started her first clinical year in July 2016 splitting her time evenly between Temple University Hospital and Fox Chase Cancer Center. Our second fellow started in July 2016 and will be spending the year in the research laboratory. We are now interviewing the candidates for the 20117-18 academic year. Dr. Christina Chu, who is based at Fox
Chase, is the director of the fellowship program. In addition to the seven board-certified gynecologic oncologists on our faculty, the program is fortunate to have faculty from the departments of pathology, radiation oncology, and surgery. In addition, the fellows have access to research mentors who are members of the Fox Chase Cancer Center research enterprise or from Temple's Fels Institute for Cancer Research and Molecular Biology. The fellows also have access to the vast academic and research resources of Temple University.

Research

We continue to actively participate in Gynecologic Oncology Group (GOG), now part of NRG Oncology, clinical trials. Six clinical trials are currently IRB-approved and open for patient entry at Temple University Hospital. These include:

GOG 237: Evaluation of Pap smears with atypical glandular cells

GOG 263: Pelvic radiation +/- cisplatin for intermediate risk cervical cancer after radical hysterectomy and pelvic lymphadenectomy

GOG 264: Carboplatin/paclitaxel vs. bleomycin, etoposide, cisplatin for ovarian stromal tumors

GOG 275: Pulse actinomycin-D (every 2 weeks) vs. 5-day methotrexate regimen for low risk GTN

GOG 277: Gemzar/Taxotere followed by Doxorubicin for stage I uterine leiomyosarcoma

GOG 279: Cisplatin/Gemcitabine and radiation for locally advanced vulvar cancer

GOG 3005: A Phase 3 Placebo-Controlled Study of Carboplatin/Paclitaxel With or Without Concurrent and Continuation Maintenance Veliparib (PARP inhibitor) in Subjects with Previously Untreated Stages III or IV High-Grade Serous Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer

The following articles were published in full or abstract form in FY16 by members of the Division faculty:


The Division faculty had several external presentations in FY16:

Hernandez E, Weissler MC. Do you want (or need) the sales rep in your OR? Town Hall meeting sponsored by the Committee on Ethics, American College of Surgeons Annual Clinical Congress, Chicago, Illinois, October 6, 2015.


Future Plans

- Maintain and grow our clinical practice and our clinical trials portfolio
- Develop a robotically-assisted surgery training program for our residents and fellows
- Recruit top candidates for the fellowship program
- Continue to fully integrate the Divisions of Gynecologic Oncology at Temple University Hospital and Fox Chase Cancer Center

2. Maternal-Fetal Medicine

The 2015-16 academic year saw stability in the MFM division with no major changes in personnel. The Division is headed by Laura Goetzl, Division Director with two core faculty members, Drs. Laura Hart and Wadia Mulla (Total division FTEs 2.8). The division applied for both a Pennsylvania Opioid Center of Excellence grant to fund clinical care for Opioid dependence and was a major participant in the Temple application for a Research Center of Excellence in Opioid research. The MFM team also included three clinical nurse coordinators (two in the high-risk outpatient offices and the other in the Prenatal Diagnosis Center) and two part time medical assistants. Five sonographers performed ultrasound examinations under the supervision of our ultrasound manager, Dawn Cramer. The MFM service includes a PGY-3 and PGY-1 resident. The division will continue to fulfill its mission of providing prenatal care to women with high-risk pregnancies and to oversee the prenatal and obstetrical care of all patients at Temple University Hospital.

Clinical Activities

The Maternal Fetal Medicine division provides high-risk obstetrical services in outpatient and inpatient settings. The Maternal Fetal Medicine specialists staff a twice weekly high-risk pregnancy clinic. The combination of broad and deep knowledge in the field of maternal fetal medicine and the available advanced technology enables the team to provide the most up-to-date medical management. The perinatologists provide inpatient and out-patient consultation at Temple University Hospital. Through a very active transfer service, high-risk pregnancies that cannot be managed in other facilities are transported to Temple University Hospital under the care of the MFM service. Pregnant patients with various medical, surgical and obstetrical complications including diabetes, hypertensive disorders, cardiac disease, pulmonary pathology, poor obstetrical history, history of pregnancy losses, multifetal pregnancies, surgical problems, and cancer are taken care of at Temple University Hospital by the MFM team.

General Obstetrics activities in fiscal year 2015-16 included:

- Our Triage area continued to be very busy and accommodated almost 7600 visits.
• Advanced practice nurses (two nurse practitioners and 2 certified nurse midwives) continue to staff the triage area along with a PGY 1 resident under the supervision of the attending physician.
• A nurse midwife, Vivian Lowenstein, assisted with post-partum patients and in monitoring and delivering patients when residents are on their protected didactic time.
• Dedicated labor and delivery anesthesia team continues to serve with 24-hour coverage/7 days a week, with the majority of laboring patients receiving adequate pain control with epidural anesthesia if desired.
• Major advances continue to be made towards obtaining full Baby-Friendly Hospital Certification status through the collaboration of Dr. Gail Herrine, the medical director of our post-partum unit and medical director of ILactation, who is also a board-certified lactation consultant and OB nursing leadership under Jennifer Rodriguez. We have continued to focus on promoting immediate skin to skin on labor and delivery and couplet care. Training via the “Milk Mob” is going well and we are celebrating with “Breastfest”. Success will be tracked through improvement in our mPINC score: Baseline 62 (in 2013). The 2015 questionnaire was completed and are awaiting the results from the CDC.
• This year we are applying for a 2017 Kellogg grant focused on improving postpartum care (4th Trimester). If obtained, funding will include support for lactation consultants, psychiatric consultation, peer counselors and social service support.
• Kellogg funding and a successful fundraising drive was also used to support a safe sleep program we called Safe T which provides a box for all of our babies to sleep in after discharge. This program was modeled after a Finnish program to decrease infant morbidity and mortality. Use of the “Baby Box” has received considerable media attention and should support both a reduction in SIDS rates and improved breastfeeding adherence. Outcomes are being tracked immediately post discharge and at 3 and 6 months.
• Perinatal Core Measure PC-05-exclusive breastmilk feeding for this year was up from 21% to 23.2% (50% is the goal)
• Temple maintained membership in the Keystone 10 program, which is a Pennsylvania Department of Health and Academy of Pediatric funded program to assist Pennsylvania hospitals move along the Baby Friendly Hospital Initiative pathway. As well as the EMPower Initiative which is a selective granted program to promote Baby-Friendly practices.
• We continue to have a vibrant cord blood donation program that is one of the most successful in the state. This critical service provides potential stem cell transplants, especially for minority populations for whom available matches are currently more limited.
• We instituted an Obstetric Massive Transfusion policy for acute life threatening obstetric hemorrhage.
• We incorporated sponge counts into all vaginal deliveries to reduce the likelihood of a retained vaginal sponge.
• An insulin drip policy was implemented to optimize glycemic control in labor.
• Quality initiatives that have been ongoing include: Monitoring of blood cell utilization, cesarean delivery rates, and wait times. The Obstetric department was in the top three departments for quality projects and initiatives.
• Established post discharge telephone calls to guarantee that all our patients have a post-partum appointment
• Dr. Hernandez and Nancy Fox instituted a Nursing Recognition Program to recognize excellence in obstetric nursing with a monthly award.
• The postpartum floor is undergoing some renovations and improvements including some redecoration and the addition of recliners and pullouts for family members.
• Clear drapes for cesarean deliveries are being piloted to increase patient-centered, family friendly care.
• Drs. Ayala-Crespo and Mulla are codirecting our Obstetric simulation program – focusing on emergency obstetric situations with high liability including shoulder dystocia, breech delivery and obstetric hemorrhage. This year we hope to acquire a full body obstetric simulation model to improve drills.
• We rolled out a new postpartum tubal policy on labor and delivery to increase the number of patients receiving this critical procedure prior to discharge.
• Pre-cesarean scheduling and lab testing was streamlined
• We created a complete set of EPIC order sets and notes to support obstetric care under the EPIC inpatient transition

30-day all cause postpartum readmission rate remains at 1%.  
Antibiotic prophylaxis given prior to the skin incision in cesarean sections was 100%.  
Rates of elective induction <39 weeks was 0%  
Steroid administration at <34 weeks was 100%.  
Obstetrical infection rate (post-partum endometritis) remains low at 1%.

**MFM Activities**

1. Temple Prenatal Diagnosis Center
   Temple University Hospital has a long-standing Prenatal Diagnosis Center that provides comprehensive prenatal diagnosis, and treatment for high-risk pregnancies. The Prenatal Diagnosis Center operates 5 days a week and is staffed by attending perinatologists. It is supplemented by a full-time perinatal nurse, ultrasonography technicians and support staff. The Prenatal Diagnosis Center provides comprehensive maternal fetal medicine and genetic consultations for high-risk pregnancies within the Temple University Health System and from a number of other referring clinics. We have three state of the art ultrasound machines that were replaced in 2014. These machines are fully capable of providing 3-D imaging as needed.

   This year with the assistance of the hospital; we upgraded our ultrasound software. In addition, we received state approval to add a 4th ultrasound examination room which will be used to expand our ultrasound volume and add new services. In addition we added screening fetal echocardiography services.

   During 2015-16, we performed a total of 10,340 ultrasounds (2388 anatomy ultrasound examinations, 1330 first trimester nuchal translucency, 2491 transvaginal ultrasounds and an additional 4131 otherwise classified as depicted on Chart 4).
The Prenatal Diagnosis Center also provides comprehensive antenatal testing and consultative services around timing of delivery in complicated pregnancies. A total of 2592 antenatal tests (biophysical profile/non-stress test) were provided over the last year. Six hundred and twenty eight (628) umbilical artery Doppler studies were performed to aid in the management of intrauterine growth restriction. Ninety-one (91) screening fetal echocardiograms and 13 Doppler echocardiograms were performed; this is a new service for 2015-16.

2. **Perinatal Genetics**
   Perinatal genetics is an integral part of the Maternal Fetal Medicine division, under the direction of Ms. Janet Ober Berman, MS, LCGC. All services are provided by board-certified genetic counselors. This year we recruited Amy Coleman, MS, LCGC as a second genetic counselor. The program provides and disseminates genetic information, coordinates screening for genetic disorders of the mother and fetus and provides genetic counseling to the obstetric and pre-conception patients as needed. The most frequent genetic problems encountered include advanced maternal age, abnormal maternal serum screening, history of genetic syndromes and abnormal ultrasound findings. One thousand forty-one patients received genetic screening or counseling through Temple University Hospital’s services in 2015-16. Charts 2 and 3 illustrate our genetic services.

The perinatal genetics and fetal treatment program includes procedures such as amniocentesis, chorionic villus sampling, multifetal reduction and PUBS. Less of these procedures are being performed nationwide due to the availability of non-invasive prenatal diagnosis. NIPT is currently recommended instead of screening for all patients over 35 or those with risk factors. Additional services include selective reduction. The traditional second trimester prenatal diagnosis screening test has been improved through first trimester screen, which is now encouraged for all pregnant patients who present prior to 14 weeks. In the fiscal year, we performed 1330 first trimester screens. Paternity testing is also available in collaboration with the DNA Diagnostic Laboratory.

Educational activities include training of medical students, OB/GYN residents and genetic counseling interns. Temple’s perinatal genetic program is a clinical training site for Arcadia University’s Masters of Genetic Counseling program.

3. **MFM Satellite Activities**
   In the 2016-17 academic year, with a full complement of MFM personnel, the division plans to reopen 1 to 2 satellites to provide maternal fetal medicine and genetic services to other sites in the Philadelphia area. We are currently training a sonographer from Episcopal hospital who will be able to provide on-site obstetric ultrasound at both Episcopal and Northeastern sites.

4. **Obstetric Service**
   The Maternal Fetal Medicine division supervises the high-risk patients of the obstetrical service.
   In the 2015-16 Fiscal Year:
• Total Deliveries decreased by only 2% to 2856
• Our primary cesarean rate fell 1% to 13%
• Our overall cesarean rate fell from 29.0% to 28.6%.

Chart 5 shows the annual number of deliveries at Temple University Hospital from 1999 to present. Chart 6 shows the mode of delivery of infants delivered at Temple University Hospital in FY16. Charts 7 through 9 depict the number and types of visits of obstetrical patients seen at our two main sites (Residents Clinic at 5th floor Zone B and the Temple University Physicians practice at Temple University Hospital 7th floor Zone B). The total number of new obstetrical patients seen in FY16 at all our sites to include our community practices was 1500. Charts 10 and 11 demonstrate the origin of the obstetrical patients delivered at Temple University Hospital in 2015-16.

5. Obstetrics and MFM Education

   a. Medical students- All third year medical students rotating through Temple University Hospital spend two weeks on the obstetrics service. They are exposed to the maternal fetal medicine service through rotations to the high-risk clinics and inpatient rounds. While on this rotation, they are expected to integrate themselves with the health care teams with assignments in the inpatient and outpatient care areas. The medical students are expected to follow patients, write comprehensive notes, and participate in procedures including deliveries. Their educational experience is through formal and informal didactics from MFM faculty and residents, morning rounds, chapter reviews, journal clubs, and grand rounds. Fourth year medical students can also choose to spend elective time in an MFM rotation. The fourth year MFM elective includes exposure to prenatal ultrasound examinations, high-risk patients with a variety of medical or obstetrical complications, procedures including deliveries, and didactics. The students upon the completion of their rotation are expected to be familiar with the most common high-risk conditions such as preterm labor, premature rupture of membranes, hypertensive disorders of pregnancy, basic prenatal diagnosis, and principles of management.

   b. Resident education-The residents are required to rotate through the Maternal Fetal Medicine service. A PGY3 and PGY1 resident are assigned to Maternal Fetal Medicine and are responsible for admitting, follow-up, and management of high-risk inpatients under the direction of the MFM specialist covering the service. The residents also see patients in the MFM clinics on Tuesday and Thursdays. Mondays and Fridays, the residents undergo ultrasound training at the fetal center. The PGY3 also observes and/or participates in prenatal diagnosis and treatment procedures. This year we instituted a formal training program for transvaginal ultrasound with an online course and image verification required for certification. By the end of the rotation the PGY3 is expected also to be able to perform a basic anatomic evaluation and an accurate transvaginal ultrasound. The PGY1 is also expected to be able to measure fetal biometry, perform a biophysical profile and evaluate amniotic fluid. The Maternal Fetal Medicine faculty provides formal and
informal lectures in the field of high-risk obstetrics and perinatology. Morbidity and mortality conferences are conducted bimonthly along with the neonatology services and subspecialist from St Christopher Hospital. Obstetric testing scores increased significantly this year for the Ob/Gyn residents.

6. Research Activities

Each Maternal Fetal Medicine attending has a particular area of research interest. The medical students and residents are encouraged to participate in the many clinical and basic science research activities in the division. The diverse field of interest is illustrated below:

Dr. Laura Hart

Dr. Hart is collaborating with Drexel University researchers studying the obstetrical outcomes of morbidly obese women and whether or not induction of labor at 40-week gestation will improve the outcome.

Dr. Hart is planning to do research with opioid dependent pregnant women who will participate in a state-funded treatment program.

Dr. Laura Goetzl

Dr. Goetzl serves as the Division Director for Maternal Fetal Medicine, the Medical Director of Labor & Delivery and the Vice-Chair for Research and Academic Development in our Department. Dr. Goetzl has an active laboratory in the Shriner’s Research Institute (MERB6). Her lab is staffed with two associate scientists: Nune Sarkissian-Darbinian, Nana Merabova. In addition, she has a full time study coordinator for patient recruitment, Tamara Tatevosian. Dr. Goetzl is a standing member of the PN NIH study section as well as multiple ad-hoc study sections.

Translational Research:
- Placental transport mechanisms for psychoactive medications
- Fetal brain injury secondary to ethanol and psychoactive medications.
- Effects of in utero exposure to inflammation and obesity on neonatal outcomes
- Development of non-invasive biomarkers for fetal brain development

Clinical Research
- Epidural fever
- Normal Labor Mechanisms and Outcomes
- Obesity

Current Funding:

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Gestational Age Variation in Human Placental Transport Mechanisms

Gates Foundation Grant to Develop Non-Invasive Markers of Fetal Brain Development

$100,000 2014-2016

Dr. Goetzl, Co-PI with Dr. Sharon Herring: Targeting pregnancy-related weight gain to reduce disparities in obesity: a randomized control trial. HRSA

Dr. Goetzl is co-PI on study with Vanderbilt University and the University of Pennsylvania that looks at fetal lung development.

Current Resident Mentees:

- Alyssa Zackler – The effect of maternal fever on labor progression and myometrial contractility. Accepted as poster. SMFM Feb 2015
- Lauren Maher – Augmented vs. Standard Clear liquids in labor and obstetric outcomes.
- Lauren Maramara – Obesity as a risk factor for failed induction

Dr. Wadia Mulla

Dr. Mulla’ IRB-approved research involves measuring diabetes and pancreatic markers in cord blood. Her research interests are in obesity, gestational diabetes and glucose metabolism.

7. Faculty Mentorship:

Dr. Goetzl works with all of the junior faculty in the department to aid in their academic development. She meets with each faculty member yearly to review their CV, focus their goals and aid them in making academic connections. Dr. Goetzl assists faculty members in grant and manuscript preparation.

The future of Maternal Fetal Medicine at Temple

The goals of the Maternal Fetal Medicine Division for the next fiscal year are:

a. Continue to pursue an application for maternal fetal medicine fellowship
b. Cross train sonographers across the health system in Ob/Gyn ultrasound.
c. Continue to implement evidence based obstetric and MFM practice protocols in the high and low-risk obstetric clinics and on labor and delivery.
d. Increase the volume of obstetric ultrasounds at the Prenatal Diagnosis Center.
e. Pursue work as a center of excellence in the care of pregnant women with opioid use disorders
f. Develop non-invasive markers of in-utero brain development to support the Zika Virus Crisis.
g. Obtain and utilize a full body obstetric simulation model to improve multidisciplinary care/performance in high liability and risk scenarios.

3. Gynecology & General Obstetrics

The Division of Gynecology and General Obstetrics is committed to promoting women’s health care using the latest and most advanced technology available. Part of our mission is to include our patients as an integral component of the decision making process.

Providers

Dr. Juan J. Diaz is the director of the Division. The other full time faculty physicians are: Drs. Arleen Ayala, Bruce Carnivale, Jose De La Mota, Gloria Diaz, Shaliz Dolan, Bethany Goins, Gail Herrine, Amanda Horton, Stacey Jeronis, Bruce Mabine, Anthony Milicia, Erin Myers, and Marisa Rose.

Adjunct Faculty: Drs. David Dzurinko, Deslyn Mancini, Shwetha Shrivatsa, Todd Stearns, Henry Su, and Clinton Turner.

We also include two nurse midwives, Deborah Appleyard and Vivian Lowenstein, and a nurse practitioner, Teresa Smigo, who helps the faculty and residents with the heavy patient load of the Low-Risk Obstetrics Clinic, 7th Floor Zone B private practice, and in the 8th Floor Family Planning Clinic.

Clinical

The members of this Division see patients at multiple sites, which include: Family Planning Clinic (8th Floor, TUH Out-Patient Building), Episcopal Continuing Health Care Center, 7th Floor TUH Zone B Private Practice, 5th Floor TUH Zone B, Roxborough (Jamestown Medical Office Building), Temple Health Women’s Care at (Salus University Campus) Elkins Park, Temple Health at Fort Washington, Northeastern Ambulatory Care Center, and Bustleton Avenue and Palmer House Temple Physicians, Inc. practice sites.

In addition, we see patients referred to Temple for inpatient management from clinics located throughout the city such as Greater Philadelphia Health Action, Esperanza Health Center and Delaware Valley Community Health clinics.

The general gynecological inpatient service team is constituted by an attending physician (service attending), a PGY4, PGY3, PGY2, two interns, the rotating third year medical students, and a fourth year medical student. This team is responsible for managing gynecological emergency cases, performing elective surgery on patients from the family planning clinic, and caring for these patients post operatively. This team also serves as a consultant for gynecological cases to other departments within our institution.
Surgical Volume for the Benign and Gynecologic Oncology Services

The department performed 1509 surgical cases in FY 2016. After comparing the number of surgeries of YTD FY 2015 and FY 2016 a drop of 10% can be observed.

This decline is partly attributed to the retirement of some of our busiest obstetricians/gynecologists, and to the fact that now we perform postpartum tubal ligations in the Labor and Delivery Unit instead of the main Operating Room, and those numbers are not counted in the Operating Room statistics reported above.

It is also a known fact that there has been a drop in the number of inpatient gynecologic surgeries in the Southeastern Pennsylvania area for the last few years.
The department has been working very closely with hospital and health system leadership and the staff of 5 East in order to improve our patient satisfaction scores. Our scores have shown improvement (FY15 vs. FY16). In FY 16 we were at or above goal in the following
areas: care of transitions, discharge, cleanliness, pain, communication with nurses, communication with doctors, and hospital rating.

**Patient Safety**

Patient safety is one of the key issues prioritized by the Institute of Medicine as critical for effective health care delivery. Creating a more robust safety program is essential as we build a busier surgical program with more surgeons with different levels of experience.

To keep track of our surgical outcomes we utilize the National Surgical Quality Improvement Program (NSQIP) database. The information is risk adjusted data, and it collected from our hospital and other major teaching institutions throughout the country. It gives us the opportunity of comparing our outcomes against a large database. An analysis of the odds ratios for the different Patient Safety Quality Indicators show that our results are satisfactory.

![NSQIP Patient Safety Quality Indicators](image)

NSQIP patient Safety Quality Indicators. Targeted cases 1/1/2014-12/31/2015.

**GYN ROR = GYN Unplanned Return to OR**

The above graph is a representation of the 7/2014-6/2015 and 1/2015-12/2015 data (with 6 months overlap). There is an overall improvement in the safety indicators for benign gynecology and gynecologic oncology.

**Operating Room**

Reagan Rose RN (department Service Line Coordinator) reports:

OR GYN Projects Fiscal Year 2015-2016
• Tote System and Custom Pack Revision
  o GYN custom packs were reviewed repeatedly throughout the year and unnecessary items were removed
  o Case specific “Totes” are being finalized
    ▪ Totes will include Custom Packs and disposable supplies in a single package
    ▪ Will lead to simplified case picking and will reduce waste
  o GYN specific totes that are being created include:
    ▪ Laparoscopic Tubal Ligation
    ▪ D&C/Hysteroscopy
    ▪ TAH/GYN Abdominal Procedures
    ▪ Vaginal Hysterectomy

• Preference Card Review & Standardization
  o With the help of surgeons and staff, Preference Cards continue to be edited and updated
  o Preference Cards were uploaded into EPIC and are being checked for accuracy and completeness.

• Instrumentation
  o To meet the needs of our patient population, a 2.9mm Hysteroscope was purchased and made available for procedures
  o Additional RUMI 2 hand-pieces were purchased to meet increasing demand
  o New laparoscopic instruments were purchased to replace older instruments on the GYN laparoscopy tray
  o Additional 5mm Falope Ring applicers were purchased

• GYN Supplies
  o 5mm Endobag was made available for laparoscopic tubal sterilization procedures, laparoscopic salpingo-oophorectomies, etc
  o Containment Extraction System is available for Laparoscopic Total Hysterectomies
  o As part of the Supply Chain Transformation, all supplies, including GYN supplies, were inventoried, pars increased or decreased depending on need and relocated to a centralized location where they are easier to find

Education

Medical students:

All third-year medical students assigned to Temple University Hospital spend two weeks in the general gynecological inpatient service. Teaching/work rounds are directed every day by an assigned attending physician. The students are assigned their own patients to follow. They present and discuss the patients during rounds.

Each third year medical student rotating through our department pairs up with an attending physician for one-half patient session a week providing the medical student with direct one to one instruction.
The core division’s faculty gives at least one formal lecture to the third-year medical students during each block. The medical students also participate during surgical procedures.

Residents:

We follow an educational curriculum for the residents which involves weekly faculty-led discussions of the most relevant topics in the field of General Gynecology.

During these discussions the residents learn the principles of preventive health, family planning, and the medical treatment of gynecologic conditions.

We also have a faculty-supervised pre-operative clinic, where the chief resident on the Gynecology Service evaluates and counsels patients before proceeding with surgical treatment. The residents act as a first- or second- assistant during gynecological procedure according to the complexity of the case. Every resident also participates in the daily teaching/work rounds.

Research

Publications:


Presentations:


Current Resident Mentees:

Camila Guitarte: “Correlation of cone biopsy findings with radical hysterectomy”.

Sarah Zitsman: “Identifying Modifiable Risk Associated with Perioperative Blood Transfusion”
Action Plans for FY 2017

- Restructure the gynecology patient satisfaction committee:

  We are planning to formulate, with the assistance of the hospital patient experience department, a committee to improve the patient’s satisfaction scores in our inpatient unit (5 East) floor.

- Action plan to improve surgical volume:

  - Recruitment of a new physician: we are actively recruiting for an obstetrician/gynecologist to join our faculty. There is patient demand that cannot be met timely. Another faculty member will increase both our clinic and surgical volume.

  - Recruitment of a Physician Assistant (PA) for our Minimally Invasive Gynecologic Surgery (MIGS) program: The same trained PA assisting with our minimally invasive procedures will improve our efficiency in the operating room and patient safety. A PA will allow us to promote and grow our robotic surgery program and will facilitate our residents’ training. The position has been approved by the hospital leadership. We are waiting for approval to move forward with hiring.

- Development of a Training Program in robotic-assisted laparoscopic surgery:

  We are developing a training curriculum in conjunction with the departments of surgery and urology that will allow residents to gain proficiency and confidence in performing robotic-assisted surgery through didactic instruction, psychomotor training, and operating room-based application.

4. Female Pelvic Medicine and Reconstructive Surgery

Carol Glowacki, MD, FACOG is the Director of the Section of Female Pelvic Medicine and Reconstructive Surgery (also known as urogynecology). She joined the Temple faculty in September, 2012. Dr. Glowacki specializes in problems of the female pelvic floor. These include bladder dysfunction (urinary frequency, urgency and incontinence), pelvic organ prolapse, fecal incontinence, pelvic pain, vulvar pain (vulvodynia or vulvar vestibulitis), painful bladder syndrome (interstitial cystitis), urinary tract infections, hematuria, genito-urinary fistulas, and sexual dysfunction. Following appropriate evaluation and testing, treatment options are discussed and implemented. Treatment options may include medications, physical therapy, pessaries (vaginal support devices) and surgery. Surgical options include outpatient, abdominal, vaginal, minimally invasive and robotic-assisted approaches, depending on the needs and preferences of the patient. The Section of Female Pelvic Medicine and Pelvic Reconstructive Surgery at Temple often emphasizes a transvaginal surgical approach to female pelvic floor dysfunction.
Sacral neuromodulation, which utilizes a technology similar to a pacemaker, is used for treating patients with overactive bladder, urinary retention or bladder pain syndromes. This modality is also approved for the use in the treatment of fecal incontinence. Botox injections at different sites in the bladder are used and effective in treating bladder symptoms in patients with neurological disorders, as well as refractory overactive bladder.

Dr. Glowacki sees patients at Temple University Hospital, Temple Health satellite in Montgomery County at Salus University on Old York Road and expanded to Center City Philadelphia in early FY16. The office at Temple University Hospital has also increased hours to accommodate more patients and decrease prolonged wait times for both new and follow up appointments. She operates at Temple University Hospital, Jeanes Hospital and Holy Redeemer Hospital. In FY16, the surgical volume continued to grow with a total of 108 procedures for female pelvic reconstruction performed at Temple University Hospital, Jeanes Hospital and Holy Redeemer Hospital. A second year (PGY 2) or third year (PGY3) gynecology resident is assigned to the urogynecology service. The residents are exposed to the initial evaluation of the patients with pelvic floor disorders and this frequently includes cystoscopy and urodynamics. The residents are also exposed to the medical therapy of pelvic floor disorders and to complex pelvic floor reconstruction procedures. Dr. Glowacki also operates with the Urology residents on their Female Pelvic Medicine and Reconstructive Surgery cases to broaden their exposure to the surgical aspect of the field. Additionally, fourth year students and third year medical students rotate on to the Urogynecology service for sub-internships and Urogynecology clinic, respectively.

Due to the increased volume seen in the Female Pelvic Medicine and Reconstructive Surgery clinics, a request has been made to add a second physician to the service. This provider would enhance trainee exposure to the specialty and clinical volume in both the Department of Obstetrics and Gynecology and the Department of Urology at Temple University Hospital.

**5. Reproductive Endocrinology and Infertility**

PGY-3 and -4 residents rotate in the Operating Room at Holy Redeemer Hospital (HRH) and Medical Center, spending the majority of their time with the doctors of the Division of Reproductive Endocrine and Infertility (Reproductive Medicine Associates of Philadelphia). The Division of Reproductive Endocrinology and Infertility is co-directed by Dr. Arthur Castelbaum and Dr. Martin Freedman. The large majority of these cases are operative laparoscopy and hysteroscopy.

Operative laparoscopic experience is quite varied and includes surgical treatment of pelvic endometriosis, lysis of adhesions, laparoscopic tuboplasty, laparoscopic ovarian cystectomy and laparoscopic myomectomy. Residents can identify typical and atypical endometriotic implants, and gain experience in its surgical ablation and/or resection. Presacral neurectomy is often performed as an adjuvant treatment of endometriosis and severe pelvic pain. Residents also have significant exposure to hysteroscopic treatment
of uterine polyps, myomata, division of uterine septae and treatment of intrauterine adhesions. PGY-3 residents scrub on laparotomies for myomectomies and microsurgical tubal anastomoses.

PGY-4 and PGY-2 residents spend three days each week in the outpatient office of Drs. Castelbaum and Freedman. Residents gain proficiency in performing vaginal ultrasonography for the evaluation of ovarian follicles, endometrial thickness, and uterine anomalies. Residents also perform many first trimester pregnancy ultrasounds, and evaluation and non-surgical treatment of ectopic pregnancies.

PGY-4 and PGY-2 residents participate in the initial evaluation of infertile couples. The resident integrates history, physical findings, ultrasonographic images and laboratory data in formulating a differential diagnosis and establishing an evidenced based treatment plan.

PGY-4 and PGY-2 residents are exposed to cutting edge ovulation induction protocols including clomiphene citrate, aromatase inhibitors, gonadotropins, gonadotropin agonists, gonadotropin antagonists, and luteal estradiol priming. They become proficient in interpreting ultrasound and hormonal data in order to maximize pregnancy rates while minimizing the risks of high order multiple gestations and ovarian hyperstimulation syndrome. They also perform, under supervision, many of the 500 annual hysterosalpingograms.

Drs. Castelbaum and Freedman opened a state of the art In Vitro Fertilization and Surgicenter facility in the first quarter of 2011, templated upon prior Reproductive Medicine Associates IVF laboratories. Residents are actively involved in the evaluation of patients undergoing IVF and embryo transfer. They gain experience in pre-IVF assessment including clomiphene citrate challenge testing, Anti-Müllerian Hormone levels, semen analysis, and semen analysis interpretation. They also are exposed to IVF ovulation induction regimens tailored to patient’s unique infertility issues. Residents attend oocyte retrievals and embryo transfers. They also observe IVF laboratory procedures including ICSI, embryo biopsy, laser assisted hatching and embryo/oocyte cryopreservation. Residents participate in outpatient diagnostic hysteroscopies and mock embryo transfers. They are exposed to thoughtful evidenced-based patient counseling to minimize the number of embryos transferred and lower the risk of multiple gestations. Approximately forty-percent of IVF patients elect to have their embryos biopsied at the blastocyst stage for Comprehensive Chromosomal Screening. Transfer of a single euploid embryo has resulted in implantation rates of 55 to 60% in women up to age 42. Residents and medical students are encouraged to watch laser biopsies and interpret biopsy results.

At the conclusion of their office rotation, it is expected that PGY-4 and PGY-2 Resident will be capable of managing all aspects of the initial work-up of infertile patients. They should also be proficient in managing ovulation with oral medication, and performing transvaginal ultrasonography and hysterosalpingograms.
Drs. Castelbaum and Freedman give a total of eight Grand Round lectures annually for the Department of Obstetrics, Gynecology and Reproductive Sciences. Drs. Castelbaum and Freedman also lecture third year medical students during their Obstetrics and Gynecology rotation. Fourth-year medical students can take advantage of a 4-week elective in Reproductive Endocrinology and Infertility (REI) with Drs. Castelbaum and Freedman. Four to seven senior medical students rotate annually. Their experience mirrors that of the 3rd and 4th year Residents. The students taking this elective are required to present one formal talk on a REI topic. Five to ten first-year medical students also shadow Drs. Castelbaum and Freedman for an initial exposure to evidenced based infertility treatment.

Since 2007 Drs. Castelbaum and Freedman offer consultation services at Temple University Hospital. They project increasing the number of new patient visits during the next academic year. It is hoped that junior level obstetrics and gynecology residents will have the opportunity to participate in the evaluation of these patients as well, providing them with an earlier exposure to the field of Reproductive Endocrinology.

6. Administration

Revenue/Expenses:

The Department had an exciting year with the addition of three new practices expanding our services to six new locations. To accurately reflect our financial position to budget, the data will be presented both with and without the new practices included.

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<th>New practices excluded</th>
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<tr>
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<tr>
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</tr>
<tr>
<td>Visits</td>
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Faculty productivity as measured by adjusted (by clinical FTE) RVUs was at the 68th percentile of MGMA compared to a budgeted target of 50%.

Staffing:

23  Clerical/secretarial staff
33  Clinical staff
6   Advanced Practice Providers
9   Administrative staff
1   Research staff
2   Genetic Counselor
1   Education coordinator
75  Total staff
New Staff Recruitment:

We successfully recruited two additional nursing personnel. One registered nurse to assist with telephone triage and OB patient education required for the Baby Friendly initiative and a medical assistant to primarily work with our residents in our family planning/GYN clinic.

Accomplishments:

- Assumed the management of three OBGYN practices midyear transferring from Temple Physicians Inc. to Temple University. This included 6 new faculty, 3 advance practitioners and 24 additional staff members, across six locations. Policies and procedures needed to be realigned with Temple University Physician guidelines especially for scheduling, billing and new clinical protocols.

- Our GYN services at the Temple Health satellite located in Ft. Washington are now part of an expanding Women’s Health Program in its own designated space. We participated in large Temple Health marketing campaign with GYN services appearing on highway billboards and promotional material distributed to primary care physicians in the community.

- Continued participation with Temple University Hospital and our lead role in the implementation of the Baby Friendly Program into the outpatient practices and increased resources and education for breastfeeding. This also included championing, along with TUH Nursing and Pediatrics, the idea for distribution of the Temple Baby Boxes to all delivering patients. Developed outpatient practice protocols and teaching tools for implementation across the Temple Health System. These tools will be shared with outside agencies within our outreach area.

- IT updates: Continued to improve and streamline the EPIC electronic medical record for OB/GYN services, as well as supported TUH with both preparation for implementation of their inpatient EPIC EMR and upgraded GE Viewpoint software for the Fetal Center.

- Urogynecology services successfully established in the Temple Health satellite in Center City.
VII. SERVICE

The Department of Obstetrics, Gynecology and Reproductive Sciences is involved in a variety of community service activities. A few of these activities are described below:

A. COMMUNITY OUTREACH EVENTS

1. Participated in the annual Temple University’s sponsored health fair at the Main Campus location promoting all of our general OBGYN and subspecialty services.

2. Participated in a community health fair and outreach event at the YMCA on Broad & Masters Street in North Philadelphia promoting primarily our OB and Family Planning services.

3. Participated in the annual Delaware Valley NOCC (National Ovarian Cancer Coalition) walk/run. Temple OBGYN has registered with the largest hospital team for the last 5 years, with 110 participants and many volunteers staffing the booths this past year.

B. FAMILY PLANNING:

1. Family Planning Services Grant through Access Matters – more than 7,000 visits in FY2016 at Temple GYN/Family Planning Clinic site.

2. The Healthy Women Program (HWP) is a breast and cervical cancer early detection program that provides free clinical breast examinations, mammograms, pelvic exams and Pap Smears, education, and follow-up diagnostic care for abnormal results to uninsured and underinsured women 40 – 64 years of age. In FY 2002, the Breast and Cervical Cancer Prevention and Treatment (BCCPT) program was introduced as a funding source for women whose cancer screenings show breast or cervical cancer or pre-cancerous conditions. The BCCPT program provides a fast track Medical Assistance application approval, providing the patient full coverage for all treatment within five days of the application date. This grant also supports other departments in the Temple Health System, including Diagnostic Imaging, Surgery and Colposcopy Clinic.

   Temple Center for Women’s Health GYN/FP Clinic has been a recipient of this grant for over 18 years.

3. HIV Education and Prevention Expansion Project. We are currently in our final project year of this 3 year grant. Project runs September through
August. Goals of the project: (1) Provide high impact HIV prevention (HIP) services, which include opt-out HIV testing, linkage of HIV positive clients to care and treatment, and for at-risk clients, behavioral interventions through counseling sessions, condom distribution, and STI screening and treatment; (2) Increase effective linkage partnerships between Title X family planning sites and other community-based organizations that provide care and treatment services; and, (3) Provide training focused on the provision of high impact HIV prevention services in order to build staff capacity. Priority for funding was given to sites in areas with high HIV prevalence.

a) HIV rapid testing is provided during triage by FP clinic staff. Data indicates our family planning program is on track to meeting our goals and objective for this project year ending August 31, 2016.

b) Testing data indicate that over 50% of family planning patients served thus far in this project year received an annual HIV test. At this rate we are expected to meet our benchmark of 70% for year 3 by August 31, 2016. Our clinical staff continues to provide opt-out rapid testing as the primary method of HIV screening during the triage process, communicating that HIV testing is a routine service in our clinic. The clinical staff have all been trained to offer and perform HIV rapid testing and risk reduction counseling via the CDC approved intervention, RESPECT.

c) Thus far in project year 3, we have identified 1 HIV positive client. This patient was subsequently linked to Temple Hospital’s Internal Medicine department for HIV care. The patient is current with her HIV care appointments since being diagnosed in our clinic and is currently on ART.

4. **Satellites operating under the Family Planning umbrella**

Student Health Services (operated by Student Health), provides family planning services, HIV testing and gynecology examinations to University students at all their locations. As of May 31, 2016, with resources provided by Temple’s HIV Expansion Project, Student Health has provided HIV screening to 556 Temple University Students at their main campus location.

C. **COMMITTEES:**

The faculty participate on a number of intra- and extra-institutional committees. These include:

Dr. Ayala
   Epic Physician Oversight Committee
   Director Obstetrical Clinical Simulation
Dr. Carnivale  
TUH OR Committee  
Health Partners Utilization Management

Dr. De la Mota  
Robotic Surgery Committee  
Credentials Committee

Dr. Juan Diaz  
LCME Self-study Subcommittee  
Robotic Surgery Committee  
Epic Physician Oversight Committee  
EPIC Surgery Workgroup  
Peer Review  
AAGL Annual Meeting Abstract Review Committee  
Board of Trustees Society of Ibero-Latin American Medical Professionals

Dr. Dolan  
OB/Gyn Residency Clinical Competency Committee

Dr. Glowacki  
TUSM Personnel and Faculty Affairs  
OB/Gyn Residency Clinical Competency Committee

Dr. Goetzl  
IRB  
Perinatal Core Measures  
PI/Patient Safety  
OB Relationship Building  
EPIC Physician Champion  
PhD Mentoring  
Dean’s Advisory  
Perinatal Research Society – Council member  
Philadelphia Maternal Mortality Review  
Philadelphia L&D Leadership Group  
Research Committee Society for Obstetric Anesthesia and Perinatology  
Nominating Committee Society of Reproductive Investigation

Dr. Goins  
OB/Gyn Residency Clinical Competency Committee  
TUSM Personnel & Faculty Affairs  
LCME Self-study Subcommittee

Dr. Herrine  
Perinatal Core Measures  
Baby Friendly Steering Committee
Breastfeeding Task Force
PI/Patient Safety
OB Relationship Building
OB & PI Committee
Baby Friendly Policy Committee (Chair)
Philadelphia Multihospital Task Force
ACOG’s Breastfeeding Expert Workgroup
American College of Obstetricians and Gynecologists Representative to
the United States Breastfeeding Committee
Board member Breastfeeding Resource Center

Dr. Jeronis
Claims Committee
Peer Review Committee
Medical School Admissions Committee

Dr. Rose
LCME Self-study Subcommittee
Transfusions Committee
OB/Gyn Residency Clinical Competency Committee
Residency Program Evaluation Committee
Residency Wellness Committee

Dr. Hernandez
LCME Self-study Steering Committee
LCME Self-study Medical Committee - Students Standards – Co-Chair
OB Relationship Building Committee
Diversity Council
American College of Surgeons
Regent
Ethics Committee
Member Services Committee
American Cancer Society, East Central Division, Board Member
Pennsylvania Medical Society
House of Delegates
Member CME Council
Philadelphia County Medical Society, Board Member
VIII. PUBLICATIONS AND PRESENTATIONS

A. PUBLICATIONS


42. Gonzalez Rios AR, Chu Lam MT, Shollenberger C, Wagner J, **Anasti J**. Tissue insufficient for diagnosis on endometrial biopsy: what’s the next step (abst.). Obstet Gynecol 2016 (May);127:73S.

43. Gonzalez Rios AR, Chu Lam MT, Herrera Gonzalez A, **Anasti J**. What does an endometrial biopsy suggestive of an endometrial polyp mean? Obstet Gynecol 2016 (May);127:83S.

44. Paredes I, **Anasti J**, Stolzfus J. Postpartum contraception: what do our patients understand? (abst.) Obstet Gynecol 2016 (May);127:125S.


B. **PRESENTATIONS (extra-mural)**

1. **Hernandez E**, Weissler MC. Do you want (or need) the sales rep in your OR? Town Hall meeting sponsored by the Committee on Ethics, American College of Surgeons Annual Clinical Congress, Chicago, Illinois, October 6, 2015.


12. Goetzl L. Exosome research in Perinatal Models; University of Texas, College Station, Texas, 2016


14. Goetzl L. Maternal Fever at Term; Jefferson School of Medicine, Philadelphia PA, 2016

15. Goetzl L. Noninvasive Measures of Fetal Brain Injury, Gates Foundation Grand Challenges, Beijing, China 2015

16. Goetzl L. Maternal Exposures and First Trimester Fetal Brain Development: Direct and Indirect Assessment; Seminar, University of Pennsylvania, Philadelphia, PA 2015


19. Gonzalez Rios AR, Chu Lam MT, Herrera Gonzalez A, Anasti J. What does an endometrial biopsy suggestive of an endometrial polyp mean (poster)? Annual


# IX. CONTACT INFORMATION

**Chairman’s Office**  
(215) 707-3002

**Practice Locations:**

<table>
<thead>
<tr>
<th>Service</th>
<th>Location</th>
<th>Appointments</th>
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<tbody>
<tr>
<td><strong>Faculty OB/GYN Practice</strong></td>
<td>Temple University Hospital 7th floor, Zone B</td>
<td>(215) 707-3008</td>
</tr>
<tr>
<td><strong>GYN/Family Planning Clinic</strong></td>
<td>Temple University Hospital 8th floor, Zone B</td>
<td>(215) 707-3232</td>
</tr>
<tr>
<td><strong>OB/High-Risk OB/Diabetes in Pregnancy Clinics</strong></td>
<td>Temple University Hospital 5th Floor, Zone B</td>
<td>(215) 707-3008</td>
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<tr>
<td><strong>Gynecologic Oncology</strong></td>
<td>Temple University Hospital 7th floor, Zone B</td>
<td>(215) 707-3015</td>
</tr>
<tr>
<td><strong>Holy Redeemer Hospital</strong></td>
<td>1648 Huntingdon Pike Meadowbrook, PA 19046</td>
<td>(215) 707-3015</td>
</tr>
<tr>
<td><strong>Chestnut Hill Hospital</strong></td>
<td>8815 Germantown Ave., Ste. 46</td>
<td>(215) 707-3015</td>
</tr>
<tr>
<td><strong>Temple Cancer Center</strong></td>
<td>3401 N. Broad Street 4th floor, Zone D</td>
<td>(215) 707-3015</td>
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<td><strong>Colposcopy Clinic</strong></td>
<td>Temple University Hospital 5th Floor, Zone B</td>
<td>(215) 707-3015</td>
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<td><strong>Maternal-Fetal Medicine Consultation</strong></td>
<td>Temple University Hospital 5th floor, Zone B</td>
<td>(215) 707-3008</td>
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<tr>
<td><strong>Perinatal Diagnosis Center</strong></td>
<td>Temple University Hospital 8th floor, Zone B</td>
<td>(215) 707-3648</td>
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<tr>
<td><strong>Obstetrics &amp; Gynecology</strong></td>
<td>Episcopal OB/Gyn Practice 100 E. Lehigh Avenue, Philadelphia, PA 19125</td>
<td>(215) 707-1840, 707-1118</td>
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<tr>
<td></td>
<td>Roxborough OB/Gyn Practice Jamestown Medical Building Suite 107</td>
<td>(215) 483-7700</td>
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<tr>
<td></td>
<td>TPI Women’s Care at Northeastern 2301 E. Allegheny Ave. Ste. 180</td>
<td>(215) 926-3700</td>
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<tr>
<td></td>
<td>Jeans GYN Associates-Temple NE 9931 Old Bustleton Ave. Suite 203</td>
<td>(215) 324-0600</td>
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<tr>
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<td>Hunting Park Avenue Practice 133 W. Hunting Park Avenue, Philadelphia, PA 19140</td>
<td>(215) 602-8900</td>
</tr>
<tr>
<td></td>
<td>Palmer Park Practice 1741 Frankford Ave., Suite 100, Philadelphia, PA 19125</td>
<td>(215) 425-2424</td>
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<td>Fort Washington 515 Pennsylvania Avenue, Fort Washington, PA 19034</td>
<td>(215) 707-3008</td>
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<tr>
<td><strong>Urogynecology</strong></td>
<td>Temple University Hospital 7th Floor, Zone B</td>
<td>(215) 707-3008</td>
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<td></td>
<td>Temple Health – Salus 8380 Old York Road, Suite 100, Elkins Park, PA 19027</td>
<td>(215) 517-5000</td>
</tr>
<tr>
<td></td>
<td>Center City Office Medical Arts Tower 255 S. 17th Street, Suite 2101, Philadelphia, PA 19103</td>
<td>(215) 707-3008</td>
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**Appointments for Reproductive Endocrinology and Infertility:**  
215-938-1515
X. Illustrations and Charts

Chart 1. Procedures performed at Temple’s Prenatal Diagnosis Center in FY16

TOTAL = 13705 (7% increase over FY15)
Chart 2. Genetic screening and counseling visits at Temple University Hospital

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<td>713</td>
<td>997</td>
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Chart 3. Genetic Screening and Counseling FY16 (AMA = Advanced Maternal Age)
Chart 4. Satellite MFM Activities (Northeastern Ambulatory Care Center), inactive since 2014.
Chart 5. Obstetrical Deliveries at Temple University Hospital

Chart 6. Mode of Delivery at Temple University Hospital FY16
Chart 7. New Obstetrical patients (low-risk) seen at the Residents Clinic

Chart 8. Total obstetrical visits at the Residents Clinic
Chart 9. Outpatient obstetrics: High-Risk (HR), and low-risk at obstetrical visits
Temple University School of Medicine FY16

5th Floor (Residents clinic)
7th Floor and Roxborough (pvt.)
Community OB
Chart 10. Deliveries at Temple University Hospital by referral source FY16
Chart 11. Site of prenatal care of patients delivered at Temple University Hospital and number of teenage mothers.

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<th>DVCH</th>
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<td>550</td>
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