

**DEPARTMENT OF  
OBSTETRICS & GYNECOLOGY**

**Virginia Commonwealth University  
School of Medicine**

**Annual Report  
2014 -2015**

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### Chair's Message

We have had another great year in the department. The work we have done over the last several years on facilities and faculty recruitment has really begun to show. I think this is most obvious in our volume growth. We did 2585 deliveries last year. This is over 250 deliveries more than any of the prior 10 years. Our maternal transports have almost doubled from 70 two years ago to 128 last year. Particularly notable are the new patients and employees wanting to deliver here. We are looking forward to continuing improving our facilities with renovations to the Main 5 ORs this year and remodeling of 8E next year.

We have achieved significant accomplishments in quality while building our volume. We were recognized by Anthem for our consistently excellent obstetrical outcomes, particularly our near zero early term delivery rate and our consistently low cesarean delivery rate, which has been consistently at the top of the state three consecutive years. Our invited presentation included nursing, midwifery, and low and high risk OB, emphasizing the multidisciplinary collaborative culture that has allowed us to achieve these tremendous outcomes while delivering patient centered care. This Anthem webinar was their most highly attended ever, with participants from over 300 medical centers across the country. There were so many people on the webinar that all the regular connections were full, and some attendees could only watch the slides without audio, but stayed through the entire webinar anyways. I look forward to working with all of you to achieve similar outcomes across our other services.

Our clinical services have continued their regional growth. Under Frances Casey's guidance, our family planning program has completed its first year and has a growing number of referrals for complex contraception and, in collaboration with our community partner, Planned Parenthood, provides the full range of family planning and termination services to the women of Central Virginia. Under Ron Ramus' guidance, our Maternal Fetal Medicine Division has significantly increased its footprint and become truly regional in scope. Outside referrals and transfers have increased. Our relationship with Bon Secours continues. We experimented with opening our first satellite office in Williamsburg. We are building a long term relationship with Mary Washington Hospital which will include operating their MFM unit. I am deeply grateful to Ron for his leadership and the significant accomplishments to which he has led his Division this year. Scott Lucidi has had similar success with the Reproductive Endocrine service, with a significant increase in IVF cycles. Ground is being broken for a new building in Stony Point that will include a new REI Center. Gynecologic Oncology continues to provide superb care. Under Ed Gill's leadership, our Pelvic Floor Center continues to grow as well. The generalist division continues to grow, providing the highest quality specialty care to a broad mix of private and underserved patients. The division's work with the Health Departments and Crossover Ministry provides a critical contribution to regional health care for the underserved.

Our educational programs continue to thrive. Under the leadership of Nicole Karjane and Ashley Carroll, our residency continues to both recruit extraordinary new trainees and to provide superb training and excellent placement of residents into practice and fellowships. Megan Brady got a superb position as a urogynecology fellow at Loyola. I have already received tremendous feedback about her performance. Nicole Karjane was recognized this year with the VCU Graduate Medical Education Leadership Award for Program Directors.

Our student programs also continue to thrive. Fidelma Rigby continues to do an absolutely superb job administering the clerkship. This is reflected in our number of student applicants. For a program to have 17 applicants be a slow year is extraordinary. I am also very grateful to Sarah Milton and Nathan Webb for assuming educational leadership roles as directors of the reproductive pathophysiology course. I wish them the best as they take on integrating new teaching techniques into the curriculum.

Our research continues to grow. A number of residents published papers. We have had very successful continued collaborations with researchers from other departments, particularly the P60 Center for Health Disparities and the Microbiome Project. Our own researchers continue to do well. Zhibing Zhang is RO1 funded and Dr. Lee has started a number of interesting collaborative projects looking at immunology of preeclampsia that we are very optimistic will grow into funded projects. Scott Walsh was funded by the NIH as a co-PI for a studying metabolomics in preeclampsia.

In other academic successes, Drs. Isaacs and Carroll helped edit a book *Acute Care Gynecology: A Case Based Approach* to which all of department members contributed, and was published by Cambridge University Press in December. Department members were active in many national organizations, did presentations at many national meetings, and served on important committees and in leadership roles.

I wish the best to several faculty members who have moved on. John Pierce has moved to a new practice in Lynchburg and will help Liberty University with their new medical school. I also wish Tom Peng the best in his retirement, although I am very happy that Tom's idea of retirement includes continued clinical work with the department. At the same time, we welcome new faculty. Mireille Truong will join us shortly and allow the department to expand our minimally invasive surgery capabilities and build referrals for minimally invasive procedures. Allen Hogge joined us from Pittsburgh, where he was previously the chair of the department. We are very appreciative of his work with the Williamsburg satellite and he is a welcome addition to our Division of Maternal Fetal Medicine.

On a personal note, I have completed my fifth year as Chair, and have enjoyed every minute of it (almost). By Virginia standards, I am only about five years away from no longer being the “new chair”. I apologize for some of the things I have not succeeded with, most notably learning how to contract “you” and “all” into a single word despite Dr. Borzelleca’s dedicated coaching. I am very proud to be a Chair at VCU. I am deeply appreciative of the hard work of the faculty and staff that allow us to continue to move forward advancing our missions of research, education, and providing specialty and subspecialty care to the women of Central Virginia. I look forward to the next five years.

David Chelmow, MD

Leo Dunn Professor and Chair

October 2, 2015

**Clinical  
Services**

## **SPECIALISTS IN OBSTETRICS AND GYNECOLOGY**

### **Faculty**

Christine Isaacs, MD, Associate Professor, Division Chief

Joseph F. Borzelleca, Jr., MD, MPH, Associate Professor

Ellen L. Brock, MD, MPH, Professor

Frances Casey, MD, MPH, Assistant Professor

David Chelmow, MD, Professor, Department Chair

Lisa Ellis, MD, MS, FACP, Associate Professor, Obstetrics & Gynecology/Internal Medicine

William Fitzhugh, MD, Assistant Clinical Professor

Philippe Girerd, MD, Associate Professor

Aaron Goldberg, MD, Assistant Professor

Nicole Karjane, MD, Associate Professor, Residency Program Director

Sarah Milton, MD, MS Assistant Professor

Nan G. O'Connell, MD, Assistant Professor

Nathan Webb, MD, Assistant Professor

### **Nurse Practitioners**

Andrea Burnett, NP

Natalie Moses, NP

### **Introduction**

The 2014-2015 academic year was another robust year for the Division of General Obstetrics and Gynecology at VCU Medical Center. We remained dedicated to teaching, clinical service, and research as evidenced by our publications, awards and accomplishments. As we tirelessly promote patient safety and customer service, our camaraderie and collaborative efforts within the division remain the cornerstones of our practice.

### **Clinical Activities**

The specialists remain extremely active and productive, providing comprehensive general gynecologic and obstetric care to women in the Richmond and surrounding areas. The specialist faculty staff over 20 clinic sessions per week in our faculty practice. In addition, we oversee an average of 16 resident clinic sessions per week, a LEEP/colposcopy clinic, a pediatric and adolescent gynecology clinic, a confirmation of pregnancy clinic, a surgical posting clinic, and we staff three regional health departments: Henrico and Chesterfield Counties and the Rappahannock Area Health Department. In addition, we continue to provide coverage for the local Crossover Ministry Clinic, which provides free prenatal care services to the underserved. The generalist faculty provide medical supervision and backup for four nurse practitioners and four Certified Nurse Midwives, offering collaborative services in a full range of patient-centered care experiences. With our collaborative care model we have successfully achieved one of the lowest cesarean section rates in the state and in 2014 maintained a primary cesarean rate of less than 20%. The efforts of the Generalist Division also helped the hospital obtain "Baby Friendly" status recognizing outstanding efforts at initiating and supporting breastfeeding.

The Generalist Division provides the majority of Labor and Delivery care and supervision and provides a state-of-the-art, family-centered birth experience to our patients. The past year has brought tremendous obstetric growth with number of deliveries on track to potentially reach 2,700 this year. The Nelson and Stony Point Clinics serve as our outpatient ambulatory care centers where, in collaboration with our subspecialists, we provide access to the full scope of OB/GYN services as well as office procedures, seeing over 10,000 patient visits per year.

### **Education**

The Division continues to be integrally involved in all educational aspects of the department, including student and resident teaching. Dr. Nicole Karjane has served as our residency director since July, 2012. She oversees a total of 24 residents and maintains full accreditation for the program. Nathan Webb and Sarah Milton have assumed leadership of the medical school course on Womens Health for the second year students. Dr. Ellen Brock continues to direct the Center for Human Simulation and Patient Safety, advancing and evolving the curriculum for student and resident education and technical training. In addition, the Department continues the tradition of a multidisciplinary quality assurance conference and the preoperative planning conference, both led by generalist division faculty. Four division members also serve as oral board examiners for ABOG.

### **Academics**

The specialists authored more than 20 chapters for the book *Acute Care and Emergency Gynecology: A Case-based Approach*, which was edited by division members, and was published by the Cambridge University Press in December, 2014. Division members also continued to publish and present at regional and national meetings.

### **Peer Reviewed Publications:**

ACOG Committee Opinion  
 ACOG Practice Bulletin  
 American Journal of Obstetrics and Gynecology  
 American Journal of Men's Health  
 Clinics in Obstetrics and Gynecology  
 Journal of Female Pelvic Reconstructive Surgery  
 Journal of Lower Genital Tract Disease  
 Journal of Women's Health  
 Medscape Reference from WebMD  
 Obstetrics and Gynecology  
 Pearls of Excellence  
 PLOS ONE  
 Postgraduate Obstetrics and Gynecology  
 Reproductive Science  
 Seminars in Perinatology  
 Chemistry and Biodiversity



**Regional and National Lectures:**

Anthem QHIP Webinar  
ASCCP Post Graduate Course  
ASCCP 2014 Biennial Scientific Meeting  
ASCCP Webinar  
ACOG Annual Clinical Meeting  
VA Department of Health Annual Clinician Conference  
Ware-Dunn Society Annual Meeting  
Virginia Patient Safety Summit  
International Meeting on Simulation in Healthcare  
ACOG District IV Meeting  
Virginia Tech-Carillon Medical School  
Washington Hospital Center Cancer Institute  
Virginia Orthopedic Society  
Society for Academic Specialists in General Obstetrics and Gynecology Annual Meeting  
Virginia Oral Health Coalition  
Annual Pediatric Primary Care Conference  
CREOG/APGO Annual Meeting  
North American Society of Pediatric and Adolescent Gynecology; Annual Clinical and Research  
North American Forum on Family Planning Meeting  
March of Dimes Maryland  
NASPAG ACRM Stump the Professors  
Thomas Jefferson University

**Local Lectures:**

Ob/Gyn Core Lecture Series at VCU  
How to Treat a Woman Lecture Series at VCU  
Department of Surgery Grand Rounds at VCU  
Department of OB/GYN Grand Rounds at VCU  
VCUHS Patient Safety Conference  
VCU Women's Health Conference  
St. Catherine's Middle School

**Editorial Boards:**

Excellence Foundation Pearls of Excellence  
Medscape Reference OB/GYN Textbook  
Post Graduate Obstetrics and Gynecology  
Residency Program Director's Alert

**Journal Reviews:**

American Journal of Obstetrics and Gynecology  
American Journal of Men's Health  
Contraception  
International Journal of Obstetrics and Gynecology  
Journal of Pediatric and Adolescent Gynecology  
Journal of Women's Health  
Obstetrics and Gynecology

**Service to National Organizations:**

American Board of OB/GYN (ABOG)

Board of Directors  
Oral Examiners  
Written Exam Committee  
Long Range Planning Subcommittee  
Ad-hoc simulation subcommittee  
Audit subcommittee  
Maintenance of Certification Exam Committee

American College of OB/GYN

Chair, Committee on Practice Bulletins, GYN  
Ad hoc member, Committee on GYN Practice  
Representative to CityMatCH Reconvened Select Panel on Preconception Health Care  
Advocacy Division  
CREOG Examination Committee

American Society for Colposcopy and Cervical Pathology (ASCCP)

Executive Board Member at Large  
Program Committee  
Membership Committee  
Finance Committee  
Assessment Committee, Resident Subcommittee

Society for Academic Specialists in General Obstetrics and Gynecology (SASGOG)

Immediate Past President  
Board of Directors  
Chair, Nominating Committee

National Initiative on Preconception Health and Health Care (PCHHC) Clinical Workgroup  
Council of University Chairs of Obstetrics and Gynecology Board of Directors

International Urogynecology Association Workshop

North American Society for Pediatric and Adolescent Gynecology (NASPAG)

Abstract Committee

Resident Education Committee

North American Menopause Society (NAMS) Planning Committee Presidents Cancer Panel

Society in Europe for Simulation Applied to Medicine

Virginia Health Commissioner's Infant Mortality Workgroup

Children's Health Insurance Program Advisory Committee (CHIPAC)

**Honors and Awards:**

Best Doctors in America

Richmond "Top Docs"

Outstanding Teacher Award for Best Teacher, MIII OB/GYN Clerkship

Outstanding Teacher Award for High Evaluation, MI Women's Health Course

School of Medicine Innovation in Education Award

VCU Physician Champion

**FACULTY HIGHLIGHTS:**

**Joseph Borzelleca, MD** enters his twenty sixth year as faculty in the Department of Obstetrics and Gynecology Generalist Division. His primary interests remain focused on office-based practice, including contraception, management of ectopic pregnancies, gynecologic ultrasound, chronic pain syndromes and obesity. He continues his involvement in a research group looking at genetic vulnerability to cancers (primarily breast and colon), and participates as a clinician researcher in the Vaginal Human Microbiome Project here at VCU. He has a special interest in training residents in general contraception and contraceptive procedures. In addition to his role as Medical Director of Nelson Clinic, he remains highly active in our Centering Pregnancy Program where he is a group facilitator and member of the Centering Core Team.

**Ellen Brock, MD, MPH** is a busy full Professor, and divides her time between the Department of OB/GYN and the VCU Center for Human Simulation and Patient Safety, where she continues to serve as the Director and was the proud recipient of the 2013 School of Medicine Innovation in Education Excellence Award. In addition, she continues her clinical practice in the Nelson Clinic office, focusing primarily on minimally invasive surgery and vulvovaginal disorders. She is an examiner for the American Board of Obstetrics and Gynecology and has taught internationally at the International Urogynecology Association workshop. Her education interests are primarily in the areas of surgical skills curriculum and interprofessional simulation based team training.

**Andrea Burnette, NP** has been working in women's health for over 11 years and has worked in the Nelson Clinic for the last 9 years. She holds a Master's Degree in Forensic Science and has trained with the YWCA to counsel victims of sexual assault. In addition, she is a certified colposcopist and now serves the community providing obstetric care to the underserved at

Crossover Clinic on a routine basis. She stays active teaching and often precepts nurse practitioner students both visiting, and those from the VCU School of Nursing.

**Frances Casey, MD**, is the director of family planning services at VCU Medical Center. She is a graduate of a family planning fellowship at Medstar Washington Hospital Center, Washington, DC, which incorporates a Masters in Public Health and a certificate in Health and Human Rights from the Johns Hopkins Bloomberg School of Public Health. She completed her residency at Winthrop University Hospital in Mineola, NY, and received her medical degree from Georgia Health Sciences University, Augusta, GA.

Her research interests include LARC side effects, standardization of perinatal loss management, and assessment of medication efficacy in second trimester cervical preparation.

**David Chelmow, MD** is currently on the Board of Directors for MCV Physicians and Chairs the MCVP Strategic Planning and Business Development Committee and the Medical School Curriculum Council while serving on a number of other medical school, hospital, and practice plan committees. He sees patients within the Division of General Obstetrics and Gynecology and is the Chairman of the department.

He is a Director of the American Board of Obstetrics and Gynecology, and continues as an oral board examiner and on several ABOG committees. He continues to serve on the Board of Directors for the American Society for Colposcopy and Cervical Pathology (ASCCP). He is the Immediate Past President of the Society for Academic Specialists in General Obstetrics and Gynecology (SASGOG). He was elected to the Board of Directors for the Council of University Chairs in Obstetrics and Gynecology (CUCOG). He serves as Editor-in-Chief for the Medscape OB/GYN Reference and for the Exxcellence Foundation in Women's Health Care Pearls of Exxcellence. He has begun his term as Chair of the ACOG GYN Practice Bulletin Committee. He is beginning editing a book on the Well Woman visit, which will be a joint publication by ACOG and SASGOG. He published a number of research papers, reviews, and book chapters during the past academic year and continues to be invited to speak. He was appointed to the OB/GYN Residency Review Committee.

**Lisa Ellis, MD** continues as Co-Medical Director for the Women's Health Clinic at Stony Point and also serves as the Chief Medical Officer of MCVP. She is also serving as Interim Vice President of Ambulatory Operations for VCUHS.

She is completing her four year term as Governor for the American College of Physicians, was elected to the Executive Council of the Board of Governors, and will sit on the Board of Regents this year. She is completing a 2 year project with ACOG entitled ReVitalize Gynecology where she is one of the only non-Ob/Gyn physicians serving as a physician leader in the work group. Work should be completed in spring 2017 with results to be published in Obstetrics and Gynecology. She is currently the Co-Chair of the 2016 Women's Health Congress Conference,

has chaired the Centennial American College of Physician Annual Scientific Update, and will chair the American College of Physician Annual Update meeting in San Diego in 2017.

In this past year she and her husband Zach Ellis, MD developed an endowed lecture "the Ellis Women's Health Lectureship", which secures an invited endowed speaker to the VCU Health campus to speak on cutting edge Women's Health topics and interact with Women's Health providers, resident learners, and faculty.

**Philippe Girerd, MD** has been a member of the Generalist Division for over 20 years. He continues an active clinical practice and teaching in all aspects of General Obstetrics and Gynecology. His research interests include Microbiology and Immunology pertaining to female reproductive health and surgical site infections. He is actively involved in leading the clinical activities of the Human Microbiome Project (vaginal section). Philippe also serves as the liaison to the Chesterfield Health department, CrossOver Obstetric clinic, and regularly staffs our Labor and Delivery unit.

**Aaron Goldberg, MD** completed medical school and residency at VCU, remaining on the faculty and becoming a busy practitioner. He sees patients at both our Nelson Clinic and Stony Point sites. His practice includes the full range of general OB/GYN and his particular interests include minimally invasive gynecologic surgery and obstetrics. He is actively engaged in both resident and medical student teaching and was honored to receive an award for excellence in teaching from the medical students. He serves as a Society Leader of one of four VCU School of Medicine student Societies and finds time to engage in legislative efforts affecting health policy and women's health. Ongoing research projects include investigations on the treatment of chorioamnionitis and the impact of obesity on various aspects of pregnancy. His work has been published in national journals including *Obstetrics and Gynecology*, the *Journal of Surgical Research*, the *Journal of Trauma*, and *American Surgeon*.

**Christine Isaacs**, continues to serve as the division chief of the Generalists, overseeing the responsibilities of 13 busy generalist faculty physicians. In addition, she is the medical director of the midwifery service and supervises the practice of four Certified Nurse Midwives. Clinically, she maintains a busy office practice at Stony Point with special interests in natural childbirth, reproductive health, and contraceptive choices. She also maintains an active role as a Centering Pregnancy facilitator.

This past year, she coedited the textbook *Acute Care and Emergency Gynecology* published in December, 2014 and spoke on Sexual Dysfunction at the SASGOG/ACOG meeting in San Francisco. In addition to speaking at both local and national meetings, she serves as an ABOG Oral Board Examiner and has reviewed or edited for *Obstetrics and Gynecology*, the *Journal of Women's Health*, and *Medscape*. She has again been honored with Richmond's "Top Doc" award and has received high evaluation teaching awards from the School of Medicine for the 6<sup>th</sup> time.

**Nicole W. Karjane, M.D** has continued in her role as Residency Program Director since May, 2012, after serving as Associate Program Director for three years. In addition to running the residency program, she maintains an active clinical practice in general obstetrics and gynecology with a special emphasis on pediatric and adolescent gynecology. She has been invited to speak at numerous meetings throughout the region on topics in pediatric and adolescent gynecology as well as HPV and pregnancy prevention. In addition, she has continued work as a co-investigator on an NIH funded study on the effectiveness of shortened interval to post-partum visit in improving attendance and contraception uptake. Nicole serves as a reviewer for the Journal of Pediatric and Adolescent Gynecology, the American Journal of Obstetrics and Gynecology, and the Journal of Women's Health. She continues to serve on ACOG's CREOG Examination Committee, the North American Society of Pediatric and Adolescent Gynecology's Abstract Committee and Resident Education Committee, where she has worked to develop resources to improve resident education in pediatric and adolescent gynecology. She was again named one of Richmond Magazine's "Top Docs" in 2015.

**Sarah Milton, MS, MD** completed her second year on the faculty in September of 2015. In addition to general obstetrics and gynecology, she subspecializes in pediatric and adolescent gynecology. She has a particular interest in minimally invasive surgery. Dr. Milton completed medical school and her residency in obstetrics and gynecology at Virginia Commonwealth University. She served as an administrative chief resident in her final year of training and received the Society of Laparoendoscopic Surgeons Award for Resident Achievement. Over the last year Dr. Milton has become increasingly involved in resident and medical student education. She is now the co-course director of the Reproduction Course for the second year medical students at the VCU School of Medicine. In addition to running this course, she has given numerous resident and medical student lectures. She has several ongoing research projects and lectures to local middle school girls on adolescent health. Further, she serves as the liaison between the OB/GYN department and the undergraduate VCU women's athletics teams. In addition to continuing to build her clinical practice at Nelson Clinic and Stony Point Women's Health Clinic, she is continuing to pursue teaching and research opportunities both within the VCU system and in the community.

**Natalie Moses, NP** has been working in women's health for over 18 years and sees patients full time in our Nelson Clinic. She is actively involved as a facilitator in our Centering Pregnancy program and was instrumental in the initial pilot study that brought the program to VCU. Her special interests include teen pregnancy, prevention of repeat teen pregnancy, and incorporation of LARC methods for contraception in the hopes that young mothers and women can focus on additional education opportunities.

**Nan O'Connell, MD** has maintained a busy clinical practice at a variety of venues including Stony Point Women's Health, labor and delivery, resident clinics, and the Henrico County Health Department maternity clinics. She has continued to support menopausal health education in the department through both lectures and clinical experience for the residents as well as in the VCU community by designing and implementing a "Centering Menopause" group for midlife women. She continues to participate in the VCU Leadership Institute for leaders in

clinical medicine, completed her third year on the Faculty Senate, chairs the Obstetrical Quality Assurance Committee and is a member of the Clinical Competency Committee for the residency program.

**Nathan Webb, MD** joined the faculty in 2012 and continues to grow his general OB/GYN practice at Nelson Clinic and Stony Point, in addition to expanding the reach of the department through practice at the Rappahannock Area Health District. He attended the Medical College of Georgia and completed his residency in obstetrics and gynecology at Vanderbilt. His clinical interests include chronic pelvic pain and minimally invasive surgery. He is active in resident and medical student education through didactic lectures and laparoscopic skills labs and more recently he assumed the role of co-director of the Reproductive Health Course for the second year medical students.

## **PEDIATRIC AND ADOLESCENT GYNECOLOGY**

### **Faculty**

Nicole W. Karjane, M.D.

Associate Professor of Obstetrics and Gynecology and Pediatrics  
Residency Program Director, Obstetrics and Gynecology

Sarah H. Milton, M.D.

Assistant Professor of Obstetrics and Gynecology

The Pediatric and Adolescent Gynecology (PAG) program at VCU began in 2004 and has been growing ever since. The program cares for patients from birth to adolescence who present with a wide variety of problems including vulvovaginitis, labial adhesions, trauma, pubertal aberrancies, menstrual irregularities, congenital anomalies of the reproductive tract, and pelvic and abdominal masses. In addition, we provide gynecologic care for young women with developmental delay and other handicaps. Dr. Karjane has been caring for these patients since the inception of the program, and Dr. Milton joined the faculty in 2013 as a specialist with subspecialty expertise in PAG. Both physicians see patients in the Nelson Clinic and at the Women's Health Center at the Stony Point campus.

The primary goals of the PAG program are to provide high quality, compassionate care of the pediatric and adolescent gynecology patient; to continue physician referral feedback and to serve as consultants to physicians in the community; and to continue to educate residents and students in the field of PAG. Ob/Gyn residents rotate in the PAG clinic during their PGY-2 year as part of the rotation in Reproductive Endocrinology and Infertility. In addition, Pediatric residents may rotate through the PAG clinic as part of their Adolescent Medicine rotation, and nurse practitioners may shadow in the clinic to improve their knowledge in PAG.

Drs. Karjane and Milton actively teach medical students and residents during rotations as well as through lectures. Lectures topics include but are not limited to teen pregnancy prevention, menstrual disorders in adolescents, the gynecologic evaluation of the child, and primary amenorrhea. In addition, Dr. Karjane serves on the Resident Education Committee for the North American Society of Pediatric and Adolescent Gynecology and has been involved in the development, publication, and dissemination of a PAG curriculum to be used by residency programs nationally and internationally.



## **CERTIFIED NURSE MIDWIVES**

### **Faculty**

Meghann Batten, MSN, CNM, Assistant Clinical Professor,  
Leslie Fehan, MSN, CNM, WHNP-BC, Assistant Clinical Professor  
Naomi Sullivan, MSN, CNM  
Stephanie Sherrell, MSN, CNM

### **Introduction**

The VCU Nurse-Midwifery service is an ever-growing presence within the department. Offering low intervention natural childbirth, the nurse-midwives provide women with an alternative birthing experience at VCU. The nurse-midwives have established a strong, collaborative relationship with the specialist physicians, enhancing our delivery of safe, evidence-based maternity care. They also provide a unique educational perspective as specialists in normal birth.

### **Clinical Activities**

The nurse-midwives' primary focus is clinical care. The nurse-midwives staff clinic sessions at our Stony Point and Nelson Clinic locations, offering the full scope OB/GYN care across the lifespan. They also provide staffing to the Rappahannock Area Health Department and support residency education. The nurse-midwives are active in our CenteringPregnancy program and are our primary facilitators for groups.

The CNM service had a strong presence in labor and delivery in 2014 with 392 births, up from 214 the previous year. The nurse-midwives offer low-intervention birth services to women desiring natural childbirth, including women desiring a trial of labor after cesarean. The nurse-midwives are proud of their 90% vaginal birth rate and 83% VBAC success rate for 2014.

### **Education**

The nurse-midwives play an active role in education within the department. They act as both inpatient and outpatient preceptors for Nurse practitioner and Nurse Midwifery students from numerous institutions. They also provide labor and delivery education to the OB/GYN and off service residents during labor and delivery coverage, as well as having residents observe midwife birth practices. Additionally, the nurse midwives are active advocates in the community by presenting topics educating women and families on women's health topics, physiologic birth and options.

### **Nurse Midwifery Statistics 2014**

Total deliveries	392	
Term vaginal deliveries	347	
Forceps assisted	3	(.7%)
Vacuum assisted	4	(1%)
Primary LTCS	29	(7.3%)
Repeat LTCS	8	(2.1%)
Successful VBACs	33	(83%)

### **Nurse Midwives**

#### **Meghann Batten, MSN, CNM**

Meghann provides full scope midwifery care at two clinic locations and facilitates centering groups at both locations. Meghann tracks and reports statistics for the CNM service. She serves on the Executive Board for the Council of Advanced Practice Professionals within the Health System. Meghann has authored a book chapter focusing on evaluation and management of mastitis and co-authored an article on hydrotherapy with other nurse midwives that will be published next year. She is involved in Simulation training for medical students and is a preceptor of Nurse Practitioner and Nurse Midwife students. She is currently in the Doctorate of Nurse Practice program at Duke University. Her capstone project is assessing the use of hydrotherapy to reduce pain in the early postpartum period. Meghann is very committed to maintaining the low tech, low intervention midwifery model of care.

#### **Leslie Fehan, MSN, CNM, WHNP-BC**

Leslie continues to provide full scope midwifery care, including facilitating centering groups. Leslie is focused on holistic low intervention care. She was instrumental in facilitating the use of Nitrous Oxide in our labor and delivery unit. She continues to work with Nursing and Anesthesia on analysis and data collection around Nitrous Oxide use. Leslie serves on the Institute for Women's Health Education Committee, Perinatal Practice Council, Obstetric Q/A Committee and CenteringPregnancy Core Team. She has a special interest in Menopausal care for women and developed curriculum for a program, "Centering Yourself through Menopause". She facilitated the first group of Centering Yourself through Menopause in February 2015. Another group will be conducted in October 2015. Leslie coordinates student activities for the Nurse Midwifery practice. She serves as a preceptor to Nurse Practitioner and Nurse Midwifery students. Leslie is the Richmond Representative to the state affiliate for American College of Nurse Midwives. She planned and organized a Continuing Education Event in April 2015: Richmond Midwives Group Meeting. The event focused on Obesity in pregnancy, labor and

delivery, evaluation and treatment of pelvic pain in pregnancy, and orthopedic considerations in labor and Delivery. Leslie is committed to expanding midwifery options to women.

She gave several lectures including “Hot Topics” (December 2014), “Physiologic Cord management” (Grand Rounds October 2015), and “What’s Old is New, Nitrous Oxide in L&D” (Ware Dunn Meeting, October 2015).

### **Naomi Sullivan, MSN, CNM**

Naomi Sullivan was born and raised in Florida, where she received her nursing degree from Santa Fe College. She worked as a NICU and L&D nurse for six years prior to pursuing her Master’s Degree in Midwifery from Vanderbilt University. She did her practicum for her MSN degree at VCU with the Midwives, and fell in love with the woman centered natural birth philosophy within the practice. Naomi joined our Midwifery group this March. Naomi is clinically interested gynecological care and in HPV prevention and management.

### **Stephanie Sherrell, MSN, CNM**

Stephanie Sherrell grew up in Michigan. She earned a bachelor’s degree in nursing from Cedarville University in Ohio in 2010. Stephanie earned her midwifery certificate and master’s degree at Georgetown University in 2013. Stephanie joined the group this August and brings with her a commitment to holistic health care for women. Stephanie is dedicated to providing care that is compassionate and comprehensive and believes that every woman deserves a midwife. She especially enjoys caring for adolescents, patient education, supporting natural childbirth, and serving women through midwifery.

## **FAMILY PLANNING**

### **Faculty**

Frances E. Casey, MD, MPH, Assistant Professor of Obstetrics and Gynecology, Director of Family Planning Services

### **Clinical Program**

The family planning program at VCU began in 2013. This program integrates comprehensive reproductive healthcare into patient services including contraceptive services for women with medical conditions, outpatient management for early pregnancy failure, options counseling, and surgical services for medically complicated pregnancies or fetal anomalies.

The primary goals of the family planning program are to provide high quality, compassionate comprehensive reproductive healthcare, to educate residents and medical students in this field, and to serve as consultants and a referral service for physicians in the community.

### **Education**

The Kenneth J. Ryan Residency Training Program completed its first full year in June 2015, increasing exposure to family planning curriculum and counseling for every resident year. Medical students started rotations June 2015. The program incorporates lectures to medical students and residents and provides workshops on outpatient surgical services, contraceptive and sterilization management.

### **Academic Highlights**

#### **Grants**

Auxiliary grant for perinatal loss and bereavement support \$4,000

Kenneth J. Ryan Residency Training Grant \$350,000

Society of Family Planning Research Award \$15,000

Long-acting Reversible Contraception Grant - supplies devices at no charge to patient's meeting eligibility (Ongoing award through Ryan program)

### **Faculty Highlights:**

**Frances Casey, MD, MPH** is the director of family planning services at VCU Medical Center. She is a graduate of the family planning fellowship at Medstar Washington Hospital Center, Washington, DC, which incorporated a Masters in Public Health and a certificate in Health and Human Rights from the Johns Hopkins Bloomberg School of Public Health. She completed her residency at Winthrop University Hospital in Mineola, NY, and received her medical degree from Georgia Health Sciences University, Augusta, GA.

Her research interests include LARC side effects, standardization of perinatal loss management, and assessment of medication efficacy in second trimester cervical preparation.

## MATERNAL FETAL MEDICINE

### Faculty

Ronald Ramus, MD- Division Director, Professor

Susan Lanni, MD- Associate Professor

Fidelma Rigby, MD- Associate Professor

Thomas Peng, MD- Professor

John Seeds, MD- Chairman Emeritus, Professor

W. Allen Hogge, MD- Professor

Lauren Vanner-Nicely, MS- Genetic Counselor

Division Administrative Assistant- Amy Helvey

High Risk Clinic Coordinator- Karen Brown, RN

Ultrasound Supervisor- Donna Justis, RDMS

### Introduction

The 2014-2015 academic year was another year of growth for the Division of Maternal-Fetal Medicine at VCU. The prior year our focus was moving into a new Labor & Delivery suite. This transition was completed in May of 2014, when most of the faculty in our Division moved into new offices in a suite right next to L&D. Since the move, our delivery volumes have grown, from 2,186 deliveries in 2013 to 2,468 deliveries in 2014. This year growth has continued, both on our main campus and throughout Central Virginia. We have begun providing MFM coverage for Mary Washington Hospital (MWH) in Fredericksburg. This is the beginning of a long term plan to staff MFM services at MWH and continue to grow our MFM volume. In addition, we have added Dr. Allen Hogge to our Division in a part-time capacity. Dr. Hogge recently retired as Chairman of the Department of Obstetrics & Gynecology at Magee Women's Hospital at the University of Pittsburgh, and has helped us open an office to see patients in Williamsburg.

The other major personnel change in the past year is the retirement of Dr. Thomas Peng, after over 20 years of service to the Department. Fortunately, we did not lose Dr. Peng as he will remain at work in the Division in a part-time capacity.

We have spent most of the past year planning renovations to our space on the Eighth floor, where antepartum and postpartum patients receive the majority of their care. Our expectation is to begin construction in the fall, with the process being completed in about a year. We are

also planning renovations to our outpatient space in the Nelson Clinic building, where our Obstetric High Risk clinics and Ob/Gyn Ultrasound services are located.

The Division's clinical responsibilities remain focused on the care of women that will deliver at VCU. This includes patients seen in our clinics on campus, patients seen at our Stony Point office south of the James River, patients from neighboring Health Department Clinics, and referrals from providers in the community of patients with significant complications or special needs best met at VCU. Our ability to provide consultation services for local physicians has expanded with staffing of offices in Fredericksburg and Williamsburg. We continued our relationship with the Bon Secours Hospital system here in Richmond by providing MFM services at St. Francis Hospital two days a week.

### **Clinical Activities**

The MFM Division staffs all the High Risk OB Clinics at VCU (five half-days a week). Our role is primarily supervisory in these clinics, as we work with residents and medical students to provide prenatal care for women with complicated pregnancies. Many of these patients are pregnant women initially seen at local Health Departments that were found to have indications for referral for specialized care.

We also staff the antepartum service for inpatients at VCU. Rounds are done on a daily basis with the third year resident running the service and assigned medical students.

The physicians in our Division each have their own private practice to provide more personalized care for women with complex pregnancies. Dr. Ramus sees patients at our Stony Point office, and Drs. Lanni and Rigby provide this service at our Nelson Clinic office on the main campus of VCU.

The Division is responsible for the provision of ultrasound services in the Department. Our main site is in the Nelson Clinic. We have three ultrasound machines (two Voluson E8's and one E6) and a room for antenatal testing (two NST machines). We perform both obstetric and gynecologic ultrasound in this suite. There is a group of four full-time sonographers that we work with, and residents in Radiology and Ob/Gyn receive their ultrasound training with us at our Nelson Clinic site. We also have a satellite ultrasound facility at Stony Point (with one Voluson E8) so that patients receiving care there can also get ultrasound studies performed at the same convenient location.

Genetic counseling services are provided by Lauren Vanner-Nicely. Lauren is a Board Certified genetic counselor in our Division, and typically sees patients in our Nelson Clinic ultrasound

suite. Lauren coordinates our first trimester screening program, as well as noninvasive prenatal testing (NIPT) services. She facilitates specimen ordering and communication of results to patients when we perform chorionic villous sampling, amniocentesis, or fetal blood sampling.

### **Education**

The Division is very involved in all the educational goals of the Department. Daily work rounds are performed with the residents and medical students in Labor and Delivery; the MFM Attending on the Antepartum service is present at these rounds to discuss patients in L&D, in addition to interesting cases seen the night before. We work closely with our house officers assigned to the antepartum service on inpatient care, and see patients together with our residents and students in clinic and ultrasound in the outpatient setting.

Dr. Fidelma Rigby serves as the supervisor of medical student education within the Department. She arranges the fourth year student rotations that include blocks on Labor & Delivery, the antepartum service, or ultrasound. There is also a specialized elective (longitudinal AI) that stations a student in clinic for most of their fourth year to follow patients over a longer period of time, to help foster the concept of continuity of care, and to be involved throughout an entire pregnancy (including delivery).

The residents and medical students receive significant didactic teaching during the academic year. This mainly occurs on Monday and Wednesday afternoons, and at Grand Rounds on Thursday morning. Our Division is responsible for all lectures that cover topics in Maternal-Fetal Medicine, and some of the material relating to Obstetrics. There is a course on Reproductive Medicine for the first year medical students; the MFM faculty lecture to these students on relevant topics. Division members also are active in providing continuing medical education through regional presentations and participation in postgraduate courses.

### **Research Activities**

The Division actively participates in the research performed within the Department. This includes both basic and clinical research. Several faculty made presentations at national meetings, served as journal reviewers, and published papers. The Division Director is the principle investigator of a grant evaluating the model of Centering in Pregnancy for High Risk patients, which is funded by the March of Dimes.

### **Academic Highlights for the year**

Lectures:

*Editorial Boards and Committees:*

ACOG Ethics Committee

CREOG In-Training Examination Committee

Abbott Research Award on Nutrition in Pregnancy Committee

Medscape Reference

Virginia State Board of Health

ACOG Maternal Mortality Reduction Initiative

CDC and AMCHP (Association of Maternal and Child Health Programs): Standardize Maternal Mortality Review processes across the US

*Journal Reviews:*

Obstetrics & Gynecology

American Journal of Obstetrics & Gynecology

Abstracts for APGO/CREOG Conference

*Honors and Awards:*

Best Teacher, MII Womens Health Course, 2013-14

Outstanding Teacher Award: OB/GYN Clerkship 2013-14

Honorary Hooder, Class of 2015 Medical School Graduation

High Evaluation in the Glands and Guts course

Top Doc 2014 (and in years past)

**Faculty:**

**Ronald Ramus, MD** joined the Department in August of 2011. After completing residency training at UTSW/Parkland Memorial Hospital and fellowship at UCSF he spent 11 years on the faculty of UT Southwestern. This was followed by 7 years running the Perinatal Service for the Bon Secours system (3 hospitals) in Richmond. In 2011 he felt the calling to join VCU to return to full-time academic practice. In addition to running the Division he is the medical director of our Ob/Gyn Ultrasound service, leads the Perinatal Practice Committee, and is a member of the Obstetric QA Committee. He is an editor of the Medscape Reference Ob/Gyn textbook and a reviewer for the Green Journal and Gray Journal. In 2013 he received the CREOG Faculty Teaching Award from the Ob/Gyn residents at VCU. He is the Principal Investigator for the Centering in Pregnancy grant looking at this model of prenatal care in high-risk pregnancies.



**Susan Lanni, MD** has worked in the Department for 17 years. She completed residency training at Penn State/Hershey Medical Center and did her fellowship at Brown University. She serves as medical director of Labor & Delivery at VCU. She works on the statewide multidisciplinary team that assesses maternal mortality, and is involved in the publishing of their summary reports. She is the principal investigator of the Virginia Department of Health grant-supported regional Infant mortality team. She is also a co-investigator in studies of the vaginal microbiome in high-risk obstetric patients and the use of umbilical blood stem cells for regenerating hepatic cells. She has been named to Richmond's Top Doc list numerous times, and has been an invited speaker at many VDH sponsored conferences. Her interests include management of the obese gravida, diabetes in pregnancy, cardiovascular disease in pregnancy, prenatal diagnosis and fetal echocardiography.

**Fidelma Rigby, MD** continues her active teaching roles at VCU. She was a resident, and completed her fellowship at LSU New Orleans. This year she oversaw the graduation of 22 seniors matching in OB/GYN and is preparing for the next senior class of 17 students. She continues in her roles as third year clerkship director, mentor to the OB/GYN interest group and fourth year mentor/elective director. She was the Director of our second year Women's Health Course, and presided over this courses evolution into a first year Reproductive Health course in the new medical school curriculum, which happened in 2014. She has completed 5 of the 6 courses needed for the Certificate in Medical Education (will finish this Fall). Through this program she has developed into the campus leader for Just in Time Teaching and has taught multiple sessions on this approach. She was again elected as an Honorary Hooder for the class of 2015. She serves on the Medical School's Teaching Awards Committee, and was again awarded a teaching pin for being the highest rated teacher in the MII course. A highlight of the year was being chosen as Faculty Master of the Baughman Society, one of the four Society's for the medical student body. She led the Baughman Society to win the coveted Strauss Cup for the second straight year. Her current research involves OB/GYN Reflection pieces, using podcasts to teach FHR tracing analysis, and assessing the utility of Step I scores in predicting OB/GYN Shelf scores.

**Thomas Peng, MD** spent 20 years teaching and practicing Maternal-Fetal Medicine, mostly at VCU. He was a resident, and completed his fellowship at Johns Hopkins Hospital. He is an editor of the Medscape Reference Ob/Gyn textbook and serves as Department liaison to the VCU hospital system on our electronic medical record due to his experience and expertise in this area. He is a member of the following ACOG committees: 2011 Co-chair of the PROLOG Patient management in the office, 6<sup>th</sup> edition, 2012 Clinical document review committee, Abbott Research Award on Nutrition in Pregnancy Committee, the CREOG In-Training Examination Committee and the MFM Section leader of the CREOG In-Training Examination Committee.

**John Seeds, MD** is the former Chairman of the Department. He recently retired as Senior Associate Dean for Professional Education Programs at VCU, but continues to work part-time in the Division, primarily in our ultrasound suite. He serves as Vice Chair of the ACOG Ethics Committee, is a member of the Virginia State Board of Health and is on the Board of the Virginia Birth Injury Compensation Program.

**W. Allen Hogge, MD** is the former Chair of the Department of Obstetrics, Gynecology, and Reproductive Sciences at the University of Pittsburgh, and Chief of Obstetrics and Gynecology at Magee-Womens Hospital. He was also the Director of the Center for Medical Genetics and Genomics at the University of Pittsburgh. He completed a residency in Obstetrics & Gynecology at the University of Virginia, and a fellowship in Reproductive Genetics at the University of California, San Francisco (UCSF). He has held faculty positions at UCSF, University of Virginia, University of Maryland, and the University of Pittsburgh.

## REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

### Faculty

Richard S. Lucidi, M.D. – Director, Reproductive Endocrinology and Infertility and Medical Director, VCU Center for Advanced Reproductive Medicine, Associate Professor  
PonJola Coney, M.D. – Senior Associate Dean for Faculty Affairs, Professor  
Jeannette Brown, MSN, WHNP-BC

### Introduction

The REI division continued to grow during the 2014-2015 academic year. Division members were very active with clinical, academic, educational and administrative activities. Division members perform these activities at multiple sites including: Medical College of Virginia Hospital (MCVH), Stony Point Women's Health, Stony Point Surgical Center and Virginia IVF and Andrology.

Our practice expanded this year with the addition of Jeannette Brown. Jeannette is a nurse practitioner with experience in infertility treatments and assists with ultrasounds and inseminations as well as new patient evaluations.

### Clinical

Our assisted reproductive technologies treatment volume has increased from 19 cycles in 2011, 34 cycles in 2012, 72 cycles in 2013, 84 cycles in 2014 and we anticipate over 100 cycles for 2015. We have expanded our treatment capabilities and have successful donor oocyte and donor embryo pregnancies as well as preimplantation genetic diagnosis (PGD) pregnancies and gestational surrogacy. We have also expanded our fertility preservation treatments for cancer patients and patients who desire to postpone childbearing.

Division members have established mutually beneficial relationships with other departments including Endocrinology, Pediatric Endocrinology, Urology, Oncology and Genetics.

Dr. Lucidi was listed in the annual "Richmond's Top Docs" edition of *Richmond* magazine.

### Education

The Division continues to be involved in all educational aspects of the Department including student and resident teaching.

Division members are actively involved in teaching of Virginia Commonwealth University medical students. Division members participate in the second year Women's Health course by leading the REI small group sessions. Third year medical students spend one week on the REI service during their Ob/Gyn rotation.

Division members are also actively involved in instruction of the Ob/Gyn residents. Second year residents spend 8 weeks on REI which includes experience in the clinic, operating room and

embryology lab. In addition, Division members regularly participate in the Department's didactic lecture schedule and Journal Club.

Medical Endocrine fellows spend one half day per week with Dr. Lucidi.

Dr. Lucidi received VCU's Outstanding Teacher Award for High Evaluation in 2014.

### **Research**

Dr. Lucidi was the Principal Investigator at VCU for the Pregnancy in Polycystic Ovary Syndrome II (PPCOS II) study. This large multicenter trial compared clomiphene with letrozole for the treatment of anovulatory infertility in women with PCOS. This study has been successfully completed and the results published in the New England Journal of Medicine. We continue to work on secondary analyses of this study with several publications resulting from these efforts.

### **Administration**

Dr. Coney continues to serve as the Senior Associate Dean for Faculty Affairs and director of the Virginia Commonwealth University Center on Health Disparities. She also serves on the NICHD National Advisory Council on Child and Human Development, the Virginia League of Planned Parenthood Board of Directors and the VCUHS Board of Directors.

Dr. Lucidi is the Division Director of the Division of Reproductive Endocrinology and Infertility and Medical Director of the Assisted Reproductive Technologies (ART) practice.

### **Faculty Highlights:**

**Richard S. Lucidi, MD** is a graduate of the Saint Louis University School of Medicine. He completed his residency in Obstetrics and Gynecology at the University of South Florida and his fellowship in Reproductive Endocrinology and Infertility at the University of Texas Health Science Center at San Antonio. Scott continues his busy clinical practice at Stony Point focusing on reproductive endocrinology and infertility. He continues as the Medical Director of the VCU Center for Advanced Reproductive Medicine and as the Division Director for Reproductive Endocrinology and Infertility.

**PonJola Coney, MD** is a graduate of the University of Mississippi School Of Medicine. She completed her residency in Obstetrics and Gynecology at the University of North Carolina and her fellowship in Reproductive Endocrinology and Infertility at Pennsylvania Hospital. Dr. Coney continues as Senior Associate Dean of Faculty Affairs and Director of the Virginia Commonwealth University Center on Health Disparities. She remains active clinically seeing patients at Stony Point Women's Health. PJ was elected to the Institute of Medicine, one of the highest honors in the fields of health and medicine.

**Jeannette Brown, MSN, WHNP-BC, RNC, C-EFM** received her Diploma in Nursing and went on to obtain her BSN from George Mason University. She received her MSN as well as Post-Master's training as a Women's Health Nurse Practitioner from the University of Phoenix. She

has 30 years of experience in Women's Health, and holds National Certifications for Inpatient Obstetrics and Electronic Fetal Monitoring. Her current practice focus is Reproductive, Endocrinology, and Infertility at Stony Point and Obstetrics and Gynecology at Nelson Clinic. Jeannette serves as the State of VA Membership Chairperson for the Association of Women's Health, Obstetrics, and Neonatal Nursing. She has been honored to be the recipient of the Daisy Award for Nursing Excellence.

## **GYNECOLOGIC ONCOLOGY**

### **Faculty**

Weldon Chafe, MD - Professor and Division Chair  
Jori Carter, MD - Assistant Professor  
Melissa Foster -WHNP-BC, OCN

### **Introduction**

The 2014 - 2015 academic year was a year of progress for the Division of Gynecology Oncology at Virginia Commonwealth University Medical Center. The division remains committed to excellence in its mission of teaching, clinical service and clinical research.

### **Clinical activities**

The division has remained extremely active and productive clinically, providing full service gynecology oncology care to women from the Richmond and surrounding areas serviced by VCUHS. Clinics were held all day Monday and Wednesday in Dalton Oncology clinic in the Massey Cancer Center and one half day each week on Thursday at the Stony Point Women's Health Center. The division started another satellite clinic at the VCU Temple Avenue Office in order to provide clinical services to Chesterfield and surrounding communities. A gynecologic oncology provider is present on Thursday mornings at that location.

Surgery was carried out on Tuesdays and Fridays and on other occasions as warranted by the demands of the service. Full consultative care is provided in the ambulatory setting in each of the clinics. Surgical education and scheduling for patients requiring surgery as well as active ambulatory chemotherapy were just some of the services also provided. Other patients on active treatment or those who had completed treatments for an assortment of gynecologic cancers were also seen on a regular basis.

### **Education and Research**

The division is involved in all educational aspects of the department, including student and resident education. The longitudinal Acting Internship at the M IV student level, introduced in 2011, has continued to be a popular rotation with students following patients in a continuity of care model clinic.

The weekly Multidisciplinary Gyn Oncology Tumor Board continues to provide a forum for discussion of all active patients. This past year, Tumor Board was held fifty one times with an average of 15 patients discussed each conference. Details of patient care, radiological investigations and pertinent pathology are reviewed on each patient presented and dispositions for future care discussed. Inclusion on active clinical trials is a major focus of discussion for each patient. This past year 750 patients were presented at our tumor board for discussion and planning of care.

A total of 15 patients were enrolled on NRG (GOG) clinical trials in the past year. Ten patients were enrolled on treatment studies and 5 were registered for cancer control trials.

Considerable discussion and evaluation of many other patients was carried out. A number of advanced cases of cervical carcinoma were enrolled on RTOG trials as well. We were somewhat hampered by lack of open trials for uterine cancer, our number one disease site. The culture and geography of many of our patients precluded them from enrolling. Overall, 342 patients were considered and actively discussed for inclusion on a clinical trial.

### **Academic highlights for the year**

#### *Journal Reviewers*

Journal of Surgical Oncology  
Obstetrics and Gynecology  
Medscape Reference eMedicine from WebMD  
Journal of Women's Health

#### *Local, Regional and National Presentations*

Obstetrics and Gynecology Core Lecture series at VCU  
M II Lectures in Gynecology Oncology  
Ware Dunn Society Annual Meeting 2014  
Sports Backers Richmond Virginia  
Community Memorial Health Center  
American Society of Clinical Oncology Annual Meeting  
Mid Atlantic Gynecology Oncology Society Annual Meeting  
Foundation of Oncology for Nurses  
Run Like a Girl Sporting Events

#### *Honors and Awards*

US News Magazine Top Doctors in America  
Richmond Magazine "Top Docs in Richmond"

### **Faculty Highlights:**

**Weldon Chafe, MD** continues to serve as Division Director of Gynecology Oncology. Over the past year he continued to be an active member of the NRG Oncology (formally Gynecology Oncology Group) by participating in enrolling a number of patients on clinical trials for both treatment and prevention of a variety of gynecologic malignancies. He was recognized by US News Magazine Top Doctors in America in 2014. He continues to serve as a peer reviewer for the Journal of Surgical Oncology, Journal of Women's Health and Obstetrics and Gynecology.

**Jori Carter, MD** functions as Institutional PI for NRG Oncology and serves an active role on a number of committees in Massey Cancer Center. She continues to champion the GYN oncology minimally invasive surgery program, offering innovative surgical techniques for many women in the community. She was named to Richmond Magazine's "Top Docs in Richmond" for 2015. She is devoted to education and mentorship for the residents and students and is actively supervising a number of research projects currently being conducted by residents.

**Melissa Foster, WHNP-BC, OCN** continues to distinguish herself as an important member of the oncology team and has championed the cause of chemotherapy management for the service. She serves as co-chair of The Council of Advanced Practice Providers at VCU Health System. She maintains a full practice as well as serving as case manager and patient advocate for the division.



## **FEMALE PELVIC MEDICINE AND RECONSTRUCTIVE SURGERY**

### **Faculty**

Edward J. Gill, MD – Division Chief and Professor

Ashley P. Carroll, MD – Assistant Professor

Elizabeth Lamb, WHNP

### **Introduction**

The Division of Female Pelvic Medicine and Reconstructive Surgery (FPMRS) enjoyed a productive year with several academic and research projects, and a busy clinical practice, providing subspecialty care for women with both common and complex pelvic floor disorders at both the Nelson Clinic and Stony Point offices.

### **VCU Female Pelvic Health Center**

The VCU Female Pelvic Health Center is a multi-disciplinary collaboration, which provides outstanding specialty care to the woman of central Virginia and beyond. It includes representation from Urogynecology, Urology, Colorectal Surgery, Gastroenterology and Pelvic Floor Physical Therapy. It accepts referrals for all women with Pelvic Floor Disorders including urinary and anal incontinence, pelvic organ prolapse, voiding disorders, and defecatory dysfunction. In addition, the combined expertise is invaluable for evaluating and treating more complex problems including genital tract and gastrointestinal tract fistulas and congenital anomalies.

### **Clinical Activities**

The clinical practice continues to thrive with referrals from all around the Commonwealth and afar. All options for evaluation and treatment of pelvic floor disorders are available. Our minimally invasive focus on treating pelvic floor disorders including the laparoscopic and robotics program has been very successful. In addition to general urogynecology, Dr. Carroll's specialties include Interstim as a treatment for urinary and anal incontinence, and endoanal ultrasound for the evaluation of anal incontinence. She has runs the Perineal Clinic, a busy subspecialty clinic for women who have sustained pelvic floor disorders from childbirth.

### **Education**

Education remains a top priority for the division focusing on both subspecialty training for the residents and medical student education. Dr. Carroll is the Associate Residency Program Director and Director of Simulation for Gynecology Surgery education at VCU. Drs. Carroll and Gill have been speakers at postgraduate meeting.

### **Research and other Academics**

The division has published several papers this year as well as several abstracts, in addition to presenting their work at the American Urogynecology Society (AUGS) national scientific meeting.

**Faculty highlights:**

**Ashley Carroll, MD** completed a three year fellowship in Female Pelvic Medicine and Reconstructive Surgery at the VCU Medical Center and achieved board certification in FPMRS. She also holds an additional appointment in the Division of Urology, Department of Surgery. She received additional training in the UK to master her skills in perineal reconstruction after obstetric trauma. She is currently conducting a randomized trial evaluating suture material during perineal repair. She also serves as the Medical Director of the Women's Surgical Unit as well as the Associate Residency Program Director. She directs the surgical simulation curriculum for the gynecology residents and is very involved in continuous improvement of the resident educational experience. Dr. Carroll dedicated much of her time last year as coeditor for the book *Acute Care and Emergency Gynecology: A Case-Based Approach*, which was published last winter.

**Edward J. Gill, MD** is Professor and Division Chief of Female Pelvic Medicine and Reconstructive Surgery (FPMRS). He has an additional appointment as Professor in the Department of Surgery, Division of Urology. He is a member of the first group to ever achieve Board Certification in FPMRS, which was awarded in 2014. He serves on several hospital and department committees and chairs the GYN Practice Committee. He is Chairman of the OR Subcommittee on OR Processes. Dr. Gill leads the multi-disciplinary Pelvic Floor Center at VCU. He maintains a busy clinical practice based at the Stony Point office and was honored with a "Top Doc" in Urogynecology from *Richmond Magazine* and was named a US News Top Doctor.

**Elizabeth Lamb, WHNP.** Beth continues in her role as the Case Manager for Urogynecology, which she has done for the last 13 years. She also maintains a busy clinical practice at both the Stony Point and Nelson Clinic offices. Beth is an invaluable resource to the nurses on the postoperative floor, coordinating both pre- and post-operative care for our Urogynecology surgery patients. She is a featured lecturer at the VCU School of Nursing and serves a preceptor for nursing and nurse practitioner students. She leads the Pelvic Floor Center's program for Posterior Tibial Nerve Stimulation for treating incontinence. Beth also maintains an extensive database for our division that has been instrumental in many of our recent published papers and research projects

# Research

## REPRODUCTIVE BIOLOGY RESEARCH

### Faculty

Scott W. Walsh, Ph.D., Division Chief and Professor

Eun Lee, Ph.D., Assistant Professor

Jerome F. Strauss, III, M.D., Ph.D., Professor and Dean of the School of Medicine

Zhibing Zhang, Ph.D., Associate Professor

### Joint Appointment Faculty

Karen Dolores Hendricks-Munoz, M.D., M.P.H., F.A.A.P., Professor, Department of Pediatrics,  
Division of Neonatology

Kimberly Kay Jefferson, Ph.D., Associate Professor, Department of Microbiology & Immunology

Susan G. Kornstein, M.D., Professor of Psychiatry, Executive Director of the Institute for  
Women's Health

Saba W. Masho, M.D., Associate Professor, Department of Family Medicine

Timothy P. York, Ph.D., Associate Professor, Department of Human Genetics and Molecular  
Genetics

### Students and Postdoctoral Fellows

Wei Li, M.D., Postdoctoral Fellow

Bhavi Modi, Ph.D. Graduate Student

William H. Nugent, Ph.D., Postdoctoral Fellow

Ayana Scott, Ph.D. Graduate Student

Maria E. Teves, Ph.D., Postdoctoral Fellow (Instructor as of July 1, 2015)

### Research Personnel

Hongfei Li, M.D., Lab Specialist

Sara Wagner, R.N., Research Nurse

Michelle Warthan, M.S., Lab Specialist

Sonya L. Washington, M.S., Research Coordinator, Lab Specialist

### Visiting Scholars

Wei Li, M.D., Ph.D.

Ling Zhang, M.D., Ph.D.

Yong Zhang, M.D., Ph.D.

Zhengang Zhang, M.D., Ph.D.

### Summary of Accomplishments

Researchers in the Division of Reproductive Biology Research are actively pursuing research in several areas important to women's health, including preterm birth, preeclampsia, depression, placental function, ovarian function, sperm motility, and childhood development. Research is supported by grants from the National Institutes of Health, Burroughs Wellcome Fund, March of Dimes, American Board of Obstetrics and Gynecology, CCTR Endowment Fund Grant, various pharmaceutical companies and other agencies.

An NIH Center Grant from the National Institute on Minority Health and Health Disparities is supporting a multidisciplinary research team in basic and clinical research that will help identify African American women at risk of adverse pregnancy outcomes and evaluate new interventions to improve maternal and neonatal health. The primary focus of the Center is to explore reasons for the high occurrence of preterm birth among African Americans, which is one of the leading causes of infant morbidity and mortality. Dr. Strauss's project is focused on genetic mechanisms relating to preterm birth. Dr. Walsh is pursuing studies relating to epigenetic and commensal bacterial mechanisms of preterm birth. Dr. York is evaluating social, economic, behavior and stress-related measures relating to epigenetic mechanisms of preterm birth, and Dr. Jefferson is studying the vaginal microbiome and altered vaginal flora as a cause of racial disparity in preterm birth.

Dr. Strauss also has active research programs concerning admixture mapping of preterm birth genes, linkage studies for polycystic ovarian syndrome (PCOS) and, in collaboration with Dr. Jefferson, studies concerning disease, genetics and environmental influences on the vaginal microbiome.

Dr. Walsh's research on preeclampsia is investigating the immunological role of neutrophils and the pregnancy specific expression of protease-activated receptor-1 (PAR-1) as a cause of vascular dysfunction, inflammation, and enhanced vascular reactivity in preeclampsia.

Division researchers have active programs related to PCOS, infertility related to dysfunctional sperm motility, and the microbiome of the preterm infant. Dr. Zhang has shown SPAG6, a central pair apparatus protein of cilia, has an important role in spermiogenesis and sperm motility. Dr. Hendricks-Munoz is studying the microbiome and their impact on the preterm infant and pulmonary health. Dr. York is studying epigenetic mechanisms and sexual abuse in neonatal and child outcomes. Drs. Masho and Chelmow are examining the influence of violence on preterm birth in Richmond. Dr. Kornstein is studying depression and hypoactive sexual disorders in women.

### **Academic Highlights**

Division members published papers in prestigious journals including: Fertility and Sterility, Molecular Genetic Genomic Medicine, American Journal of Epidemiology, Proceedings of the National Academy of Science, American Journal of Obstetrics and Gynecology, PLoS One, Journal of Occupational and Environmental Medicine, American Journal of Perinatology, and JAMA Pediatrics.

Division members served on several Editorial Boards: Reproductive Sciences, Hypertension in Pregnancy, Trends in Endocrinology and Metabolism, Journal of Women's Health, Journal of Reproduction and Development, International Journal of Gynecological and Obstetrical Research, Journal of Andrology and Gynecology, Medical Journal of Obstetrics /Gynecology, Gene Expression to Genetic Genomics, Chinese Journal of Andrology, CNS Drugs, Archives of Women's Mental Health, Clinical Medicine: Psychiatry, and Journal of Clinical Psychiatry.

Dr. Strauss served as the Editor of Steroids and Dr. Kornstein served as Editor-in-Chief of the Journal of Women's Health.

Members reviewed papers for: Placenta, Reproductive Sciences, PLoS ONE, PLoS Genetics, Trends in Endocrinology and Metabolism, Journal of Clinical Endocrinology and Metabolism, Cilia, American Journal of Perinatology, Scientific Reports, Environmental Monitoring and Assessment, Brain Research, Developmental Dynamics, Biology of Reproduction Journal of Perinatology, Science Translational Medicine, Journal of Psychosomatic Research, Neonatology and ASM journals, Application of Clinical Genetics, and the Journal of Psychosomatic Research.

Members served on regional, national and international organizations, which included Women's Health, the Membership Committee of the American Society of Andrology, and participated in training scientists at Wuhan University of Science and Technology.

### **Honors and Awards**

Dr. Hendricks-Munoz received several honors: granted tenure at VCU, American Pediatric Society inductee, voted Castle Connolly Americans Top Doc 2014 and 2015, Voted Richmond's Top Doc 2014 and 2015, Voted Best Bed Side Manner, and the Richmond OurHealth Magazine - 2014 Bedside Manner Award, Neonatology.

Dr. Jefferson received the Outstanding Teacher Award for High Evaluation and the Outstanding Teacher Award from the Department of Microbiology & Immunology.

Dr. Kornstein is listed in "Best Doctors in America".

Dr. Nugent received the Award for top poster presentation at the 3<sup>rd</sup> Annual Postdoctoral Association Research Symposium and Poster Session, and received the Elizabeth Fries Young Investigator Award and the Basic Science Research Award at the 11<sup>th</sup> Annual Women's Health Research Day.

Dr. York was promoted to Associate Professor of Human and Molecular Genetics with tenure.

Dr. Zhang received the Chutian Scholar of Wuhan University of Science and Technology.

### **Patents**

Dr. Teves obtained three patents for "Device for diagnosis of physiologic status and/or selection of the best spermatozoa of a semen sample based on chemotaxis, and procedure of use thereof". Giojalas; Laura Cecilia; Guidobaldi; Hector Alejandro; Gatica; Laura Virginia; Teves; Maria Eugenia; Montesinos; Maria del Mar; Unates; Diego Rafael: United States patent number: US 8,993,310 B2; European patent number: EP 2 4003 933 B1; Japanese patent number: JP 2012519481A.

### Leadership Roles

Karen Hendricks-Munoz was a VCU CCTR research grant reviewer, an NIH study section reviewer for program announcement, PAR 13-109 “Mechanistic Insights from Birth cohorts (R01), NIH Study Section Reviewer for PAR 14-264 “Global ‘Omics applications”, an ad hoc reviewer for NIH Study Section, Infectious Diseases, Reproductive Health and Asthma/ Pulmonary Conditions (IRAP), and was appointed a standing member of the latter Study Section for 2016-2023.

Susan G. Kornstein is the Founding President of the Academy of Women’s Health and the past President and current Treasurer of the International Association for Women’s Mental Health. She served as a federal reviewer and consensus panel member for Impact of Gender/Sex on Innovation and Novel Technologies (iGIANT) Committee, project of White House Office of Science and Technology and DHHS, Co-Chair, Practice Guidelines for Perimenopausal Depression, National Network of Depression Centers, and Data and Safety Monitoring Board, NIH multi-site research network Menopause Strategies: Finding Lasting Answers for Symptoms and Health (Ms-FLASH). She also served on National and International Committees that included the Program Committee, American Society of Clinical Psychopharmacology, Steering Committee, Bright Start Conference on Women’s and Children’s Health in Abudhabi, UAE, Co-Chair, Task Force on Clinical Guidelines for Perimenopausal Depression, National Network of Depression Centers, Planning Committee, Annual Meeting of the North American Society for Psychosocial Obstetrics and Gynecology, and Chair, Women’s Health: The Annual Congress.

Kim Jefferson was a reviewer for an NIH STI Training Center grant and a reviewer for NIH Clinical Research and Field Studies Study Section (CRFS)

Jerry Strauss served as Chair for the Committee on the State of Ovarian Cancer Research, Institute of Medicine; Chair for the Board of Scientific Counselors, Eunice Shriver Kennedy Institute of Child Health and Human Development; Chair for the K-INBRE External Advisory Committee, State of Kansas; and as a Member of the External Advisory Committee, Wisconsin National Primate Research Center.

### Faculty Highlights:

**Karen D. Hendricks-Muñoz** is the William Tate Graham Professor of Neonatal Medicine. Over the past year she strengthened the newly opened Neonatal Continuing Care Program, which is a multidisciplinary Neonatal Follow-up Program to provide neurodevelopmental follow-up to high risks infants in the region. She is opening up the program to graduates from other centers including HCA Chippenham and Johnston Willis Hospital NICUs. The only comprehensive center of its kind for high-risk infants, the Program cares for more than 300 infants including graduates from the Spotsylvania, Henrico Doctors, Southside Regional and Mary Washington NICUs. During the summer, she ran the 4<sup>th</sup> annual endowed JACKS Pediatrics Summer Scholars Program, selecting 10 national undergraduate and medical students who learned about in-patient neonatology/pediatrics and specialty pediatrics as well as worked on quality research projects to address ECMO, prematurity, sepsis and use of clinical sedation. Additionally, she

continued to develop the Neonatal satellite services where she is the administrative medical director at Chippenham and Johnston Willis hospital level III NICUs. The neonatal staff are VCUHS faculty and Neonatal Practitioners and work collaboratively with the CHoR at VCU NICU. Services within our area have doubled to over 800 admissions to the NICUs, of which over 160 are very low birth weight <1500 gms. At the research level she was inducted into the American Pediatric Society (APS) and has been nominated and accepted to become a standing member for the Infectious Diseases, Reproductive Health and Asthma/ Pulmonary Conditions (IRAP), NIH study section for a six year term. She continued to investigate environmental impact on maternal – infant inflammation and microbiome development, partnering with the EPA on diesel exposure during pregnancy as well as with VCU microbiome leadership in the MOMS PI project.

**Kimberly K. Jefferson, Ph.D.** is an Associate Professor in the Department of Microbiology and Immunology. Over the past year the focus of her research was to better understand the crosstalk between the human microbiome and its host during pregnancy and the effects of this crosstalk on pregnancy outcome. She is characterizing the bacterial microbiome of various body sites, the bacterial and host metabolomes and metatranscriptomes, and cytokine profiles in longitudinal samples taken from women during and after pregnancy. Dr. Jefferson is also searching for bacterial virulence factors that play a role in invasion of the amniotic cavity during pregnancy and contribute to infectious preterm birth. During the past cycle, she identified a gene in *Mycoplasma hominis* that is significantly associated with preterm birth and she has begun to characterize the cytotoxic activity of *Sneathia amnii*. Through the microbiome project, she has collected thousands of samples and recruited nearly half of the final cohort of 2,000 participants.

**Eun Lee, Ph.D.** is an Assistant Professor who joined the Department as full time faculty in January 2014. She received the department's first reentry supplemental grant from the NIH for the next two years. She is an active member of the American Association of Immunology, the Federation of Clinical Immunology Society, and the Society for Reproductive Investigation. Her research is to define the role of fetal endoplasmic reticulum aminopeptidase 2 (ERAP2) gene and how it is associated with preeclampsia in African Americans. Her research will clarify how the immunological response to ERAP2 variants plays a critical role in preeclampsia. Her research focuses on: 1) single nucleotide polymorphisms (SNPs) in ERAP2, 2) the maternal killer immunoglobulin-like receptors (KIRs) on decidual Natural Killer (dNK) cells, and 3) the Human Leukocyte Antigen (HLA) genetic variation on extravillous trophoblasts (EVT). She also is active in training and educating graduate and medical students. She organized a research forum for residents to promote research in the department. Her enthusiasm for research will be represented nationwide as the NIH launches a research promotional video on its website featuring Dr. Lee.

**Bhavi Modi** is a Ph.D. graduate student in the Department of Human and Molecular Genetics conducting her research within the Division. Her work focuses on the genetic mechanisms related to Polycystic Ovary Syndrome (PCOS) as well as Preterm Premature Rupture of Membranes (PPROM). With regard to PCOS she identified differentially expressed microRNAs in



theca cells of patients with PCOS. A subset of these miRs is predicted to target genes for which there is evidence of differential expression in the PCOS theca. Pathway analysis confirmed the potential of functional relevance of these miRNAs and the target genes to PCOS and associated morbidities. Currently, she is working on functional analyses of the miRNA-target gene interactions. She has also established a transgenic mouse model for PCOS overexpressing DENND1A.V2 (a confirmed human PCOS candidate gene) and is currently performing preliminary studies to characterize the model for reproductive, endocrinological and metabolic features. With regard to PPRM, she performed Whole Exome Sequencing of neonatal DNA of African-American origin from pregnancies complicated by PPRM and normal term pregnancies for which the bioinformatic analysis is in progress to identify potential variants.

**William H. Nugent, Ph.D.** is a Post-Doctoral Fellow. He undertook research to understand the process of sterile neutrophil activation in preeclampsia. He used neutrophils obtained from pregnant women to explore a novel epigenetic model whereby proteases activate TET2, an enzyme that de-methylates DNA. He found that translocation of TET2 from the cytosol to the nucleus was correlated to increases in inflammatory markers, whereas inhibition of TET2 movement was sufficient to prevent the rise of inflammatory markers. Treatment of THP-1 cells, a macrophage cell line, with heat killed commensal bacteria also caused TET2 nuclear translocation with an increase in inflammatory markers providing a link to the complications associated with preterm labor. He also explored the impact of TET2 activation in preeclamptic neutrophils by next generation sequencing to isolate specifically affected genes.

**Jerome F. Strauss, III, M.D., Ph.D.** is Dean of the School of Medicine and Executive Vice President for Medical Affairs for VCU Health System. Despite his busy administrative role he remains involved in the research efforts of the division. He is the overall P.I. of the Center Grant from the National Institute on Minority Health and Health Disparities, as well as the P.I. or co-investigator on other grants in the division and medical school. Dr. Strauss meets weekly with students and faculty regarding ongoing research in the division. He is also active in the training and mentoring of graduate students and postdoctoral students in the division.

**Maria E. Teves, Ph.D.** was promoted from a Post-Doc position to Instructor. She conducted and collaborated in several research studies focus on the understanding of the role of particular genes during mouse development, ciliogenesis and reproduction. Specifically, she studied: 1) The role of Spag17 gene on primary cilia and mouse skeletal development; 2) The role of RC/BTB2 on primary cilia in mammalian cells; 3) The role of MEIG1/PACRG complex on sperm flagella development; 4) The role of IFT proteins in spermatogenesis.

**Scott W. Walsh, Ph.D.** is Division Chief. He is the P.I. of a R01 NIH grant from the National Heart, Lung and Blood Institute and he is the P.I. of the Research Core of the Center Grant from the National Institute on Minority Health and Health Disparities. He directs active research programs in preeclampsia and preterm birth in which he trains graduate students and postdoctoral students. Dr. Walsh also teaches endocrinology and reproductive physiology in the Department of Physiology and Biophysics. He teaches in courses for medical students, dental students, nursing students, certificate students and graduate students. He is active in the

Society for Reproductive Investigation and has won several Presidents' Presenter Awards for presentations at the society. The first paper he published on preeclampsia has been designated a "Citation Classic".

**Timothy York, Ph.D.** is Associate Professor in the Department of Human and Molecular Genetics. Highlights of his accomplishments over the past year includes receiving a prestigious Burroughs Wellcome Fund Research grant as PI to study epigenetic mechanism of preterm birth in a racially-mixed sample of women. He has also continued to publish in the field of birth outcomes research. He submitted 10 manuscripts for publication during the year with 4 being published, 2 in-press and 5 in review. For this reporting cycle he either submitted or was a part of 19 total grant submissions with 6 being funded to date.

**Zhibing Zhang, M.D., Ph.D.** is Associate Professor. He submitted ten manuscripts, six were published, four under review. He presented seven abstracts at international conferences, and reviewed several manuscripts for journals. He submitted four proposals and mentored one Master's student at VCU, and co-mentored three students in China. He also served on the membership committee for the American Society of Andrology.

# Education

## MEDICAL SCHOOL EDUCATION

The Department of Obstetrics and Gynecology at the VCU MCV Campus is the primary teaching site for the VCU School of Medicine's third year clerkship. Students can also rotate to the INOVA Fairfax campus for their third and fourth years. Fidelma Rigby is the Clerkship Director for VCU on the MCV Campus. She works closely with Emily Marko, who is the clerkship director for our INOVA campus. Drs. Rigby and Marko are both extensively engaged in implementing the new Milestones portion of the OB/GYN educational experience. Dr. Rigby graduated from the APGO Scholars program in March 2013 and Dr. Marko was recently accepted into the program. Both of their program topics included working on Milestone I, which involves the preparation students need as they enter an OB/GYN residency. We welcomed Riverside back as one of our clerkship sites approximately one year ago. Dr. Dale Stovall got the ball rolling as clerkship director and has now handed the reins to Dr. Michael McMullin. Three students from each block enjoy their clerkship experience there.

The experience offered during our 6 week third year rotation covers the full range of obstetrics and gynecology as well as exposure to the subspecialties of reproductive endocrinology, gynecologic oncology, and maternal fetal medicine. We have recently starting sending third year students for rotations at Planned Parenthood with Drs. Falls and Carter and the Olde Towne Medical Center in Williamsburg with Drs Mann, Longweski and Wasserman. We are very happy to be able to offer these additional experiences. Due to the increasing class size we have started sending an additional 6 Richmond students per rotation to INOVA.

Student experience on the rotation involves direct patient care in both in- and outpatient settings, night or day shifts on Labor and Delivery, an REI rotation and the recent addition of a GU rotation. Dr. Chelmow's Chair rounds, where he meets weekly with the students on the rotation to discuss cases from the previous week, continue to be very popular. In addition, we have weekly Case Based conferences which are followed by Practical Sessions such as knot tying and simulated deliveries. We make good use of the hard work Dr. Ellen Brock has put into the Simulation Center, using it for our orientation sessions as well as our final practical exams. The students very much enjoy the opportunity to have one on one faculty interaction at the Crossover clinic and Dr. O'Connell at the Henrico Health Department.

Our fourth year medical student curriculum continues to evolve. We currently have Acting Internships in Ultrasound, Labor and Delivery Days and Nights, GYN, GYN Oncology and High Risk Obstetrics. We have recently added Longitudinal Internships in Oncology, Henrico Health Department and Routine OB clinic. Work continues on the Milestones project. We added exciting simulations at both the INOVA and Richmond campuses for the fourth years Capstone course this year! We are hoping to join a consortium for this year's graduating seniors from all the Virginia medical schools.

The biggest challenge currently facing the medical school education division is the evolution of the medical curriculum, which coincided with the completion of the new medical school. The medical school is gearing up for its LCME accreditation visit in January and we have been busy

preparing. Dr. Rigby was part of the Curriculum Renewal Committee for the Fourth year of medical school.

Drs. Webb and Milton did an amazing job in their first year as course directors for the MII Women's Health Curriculum. Innovative techniques such as fast paced questions (for prizes), Just in Time teaching and Case Based Teaching went well.

One of the changes to the third year curriculum is the addition of 2 week selectives. This gives students who have finished their core OB/GYN clerkship the chance to further explore OB/GYN. Dr. Rigby would love to have private practitioners volunteer to have an occasional eager pre-fourth year student come to their office for 2 weeks to see OB/GYN in the "real" world! Dr. Karen Knapp had a third year student with her and she had an excellent experience.

Our current roster of Case Based Conferences, which are led by the faculty on Monday afternoons, include:

- Pap Test
- Sexually Transmitted Diseases
- Gyn Cancers
- Ectopic Pregnancy
- Infertility
- Amenorrhea and Hirsutism
- Preterm Labor
- Hypertension in Pregnancy
- Abnormal Uterine Bleeding
- Third Trimester Bleeding
- LGBT Cases
- Breast Feeding Cases

## RESIDENCY PROGRAM

The Virginia Commonwealth University Residency Program had another outstanding year and continues its long tradition of high quality training and excellence in all aspects of Obstetrics and Gynecology. Our affiliate, CJW Medical Center, continues to provide important training opportunities for our residents. In addition we developed a new affiliation with Southside Regional Medical Center for further surgical training opportunities.

Over the course of the year, our residents continued to provide outstanding clinical care and have made significant contributions to the field. As usual, our faculty and residents received high praises from students for their teaching efforts.

**Virginia Commonwealth University Medical Center:** VCU Medical Center is the primary site for the residency program and provides a diverse patient population in Obstetrics and Gynecology with a depth and breadth of disease processes. The department continues to be quite stable, and the faculty members provide exceptional clinical care, teaching, and scholarly activity. In addition to hands-on patient care and educational experiences, residents continue to benefit from our simulation curriculum in the state-of-the-art Center for Human Simulation and Patient Safety.

**CJW Medical Center:** CJW Medical Center continues to provide a superb training experience for one resident per block. Under the supervision of Dr. Randy West, the residents focus on their surgical skills as they work with him in his busy Gynecologic Oncology practice. During this rotation, residents acquire a tremendous volume of cases in gynecologic surgery, including robotics. We are grateful to Dr. West for his dedication to resident training.

**Southside Regional Medical Center:** Our affiliation with Southside Regional Medical Center, which began in January of 2013, has been a superb educational opportunity for our residents. Under the direction Dr. Keith Roberts, Dr. Tracey Jones, and Dr. Charles Smith, our PGY-3 residents perform gynecologic surgery five days per week. Over the past year, this rotation has enabled us to drastically improved resident exposure to and skill in performing vaginal hysterectomies, with residents averaging approximately 10 of these procedures per month.

**Residency Administration:** Dr. Nicole Karjane continues in her role as Program Director. In addition, our Program Coordinator, Donna Barrett has continued to do an outstanding job keeping the program running seamlessly. Dr. Ashley Carroll, MD, has continued her work on our gynecology surgical curriculum in her role as Associate Program Director. We are grateful to Megan Brady and Michelle Meglin for their hard work as our administrative chiefs and are looking forward to working with Lindsay Morrell and Amanda Ritter, who are replacing them in the role. We are certain they will live up to our expectation of them and that we will have another smooth and successful year.

**The Residents:** We are pleased to have matched an exemplary group of energetic and well-qualified interns who will begin their training in June. They are:

Anna Baur, M.D.	Medical University of South Carolina
Stephanie Clark, M.D.	University of North Carolina
Danielle Frock-Welnak, M.D.	Tufts University
Stephanie Marshall, M.D.	Virginia Commonwealth University
Marie Moorman, M.D.	Virginia Commonwealth University
Nina Olsen, M.D.	Virginia Commonwealth University

Over the past year, our current and recently graduated residents have authored and co-authored numerous book chapters and peer-reviewed publications, including some published in Obstetrics and Gynecology, The American Journal of Obstetrics and Gynecology, and the Journal of Women's Health. In addition, several have presented their work at local, regional, and national meetings.

Though we are sad to see them go, we are proud of yet another fabulous group of graduating residents and look forward to the bright careers ahead of them.

Megan Brady, M.D.	Urogynecology Fellowship, Loyola University, Chicago, IL
Jessica Ciaburri, D.O.	Private Practice, Richmond, VA
Rachel Love, M.D.	Private Practice, Richmond, VA
Christopher Manipula, M.D.	Private Practice, Richmond, VA
Michelle Meglin, M.D.	Academic Practice, Medical University of South Carolina, Charleston, SC
Lisa Rubinsak, M.D.	Pelvic Surgery Fellowship, Emory University, Atlanta, GA

# Appendices



## GRANTS

Casey F. Perinatal loss and bereavement support. VCU Auxiliary. \$4,000

Casey F. Kenneth J. Ryan Residency Training Grant. \$350,000

Casey F. Society of Family Planning Research Award. \$15,000

American Board of Obstetrics & Gynecology

Co-principal Investigators: David Chelmow and Saba Masho

“Understanding the Role of Violence as a Social Determinant of Preterm Birth”

09/01/2014-08/31/2015; \$48997.00

A secondary data analysis designed to examine the influence of violence on preterm birth in Richmond. The analysis links violence data from law enforcement agency, vital statistics and census.

NIH NCMHD P60 MD00256

Contact Principal Investigator: Jerome F. Strauss, III

Principal Investigator, Project 1: Jerome F. Strauss, III

Principal Investigator, Project 2: Kimberly Jefferson

Principal Investigator, Project 3: Timothy York

Principal Investigator, Research Core: Scott W. Walsh

Principal Investigator, Administrative Core: PonJola Coney

Principal Investigator, Research Training/Education Core:

Principal Investigator, Community Engagement/Outreach Core: PonJola Coney

“Comprehensive Health Disparity Research Center of Excellence in Infant Mortality & Pregnancy Outcomes”

07/01/07 – 04/30/17, \$981,059

This comprehensive center on health disparities research focuses on infant mortality and poor pregnancy outcomes among African American women.

NIH NICHD R01 HD073555

Principal Investigator: Jerome F. Strauss, III

“Admixture Mapping of Preterm Birth Genes”

08/15/12-06/30/17, \$219,372

The goal of this research is to map genes contributing to preterm birth in African Americans.

NIH NICHD U54 HD080784

Principle Investigator(s): Gregory Buck, Ph.D., Kimberly Jefferson, Ph.D. and Jerome F. Strauss, III, M.D., Ph.D.

“A Multi-Omic Analysis of the Vaginal Microbiome During Pregnancy”

09/15/13-08/31/16, \$2,221,107

The goal of this project is to determine the relationship between the human vaginal microflora and preterm birth.

NIH R01 HL069851

Principal Investigator: Scott W. Walsh

“Oxidant Stress Mechanisms in Preeclampsia”

01-04-2010 to 06-30-2015; \$250,000/year (Direct Costs)

The goal of this project is to determine if vascular inflammation due to neutrophil infiltration is critical to the pathophysiology of preeclampsia.

NIH U19 AI110824

Principle Investigator: Gregory Buck

Co-investigator: Hendricks-Munoz

“Center Grant to assess the metabolomics of the invasive vaginal microbiome of the preterm infant”

04/01/2014-04/15/2019; Total costs \$3,702,703

The major goals are to describe the repertoire of specific vaginal pathogens and their impact in development of preterm birth.

NIH – RFA-ES-12-009

Co-Investigator: Hendricks-Munoz

PROP Sub-study of gastrin releasing factor in development of pulmonary disease

“Gastrin releasing factor and pulmonary preterm lung health”

12/1/2013-11/31/2016; Total costs \$915,000

The major goals of the project are to identify the impact of prematurity on pulmonary health.

Foundation for Physical Therapy

Principal Investigator: Dusing

Co-investigator: Hendricks-Munoz

“Supporting Play, Exploration, & Early Development Intervention (SPEEDI) to improve neurodevelopmental outcome”

09/01/2014-11/31/2017; \$615,000

NIH NICHD R01 HD073555-S1,

Principle Investigator: Eun Lee, Ph.D.

“Re-entry Supplemental Grant”

2014-2016

NIH, NICHD 1R01HD076257

Principle Investigator: Zhibing Zhang

“Dissection of the structural basis of MEIG1 in assembling sperm flagella”

06/15/13 to 05/30/18, Total costs: \$1,551,501.

NICHD (NIH Loan Repayment Program)

Principle Investigator: Timothy York

“Identification of Epigenetic Mechanisms Involved in Neonate and Child Outcomes”

07/01/14-06/30/15. (1-year commitment to pediatric research.)

Social Science Research Institute, Children, Youth and Families  
Principle Investigator: Peter Hatemi; Mentor: Tim York  
Consortium "Identifying Youth Settings and Social Interventions to Reduce Genetic Damage Caused by Child Sexual Abuse"  
\$60,000.

CCTR Endowment Fund Grant  
Principle Investigator: Patricia Kinser; Mentor: Tim York  
"Social, Environmental, and Epigenetic Mechanisms Underlying Postpartum Depression"  
10/01/31-03/31/2016; \$50,000.

1D1CMS331148 (Supplement)  
Funding Agency: The Centers for Medicare and Medicaid Services (CMS).  
Principle Investigator: Saba Masho  
"Evaluation of Strong Start"  
02/15/2015- 02/14/2017; Total costs \$210,286  
To enhance the evaluation of the Virginia Strong Start project and monitor program progress towards goals. Additionally, the project allows the implementation of quality improvement strategies to collect quality process and outcome data.

H49MC00124  
The Healthy Start Evaluation Project is funded by the Maternal and Child Health Bureau, HRSA (HRSA) and contracted by the Richmond Social Services Department (RSS).  
Principle Investigator: Saba Masho  
"Evaluation of the Healthy Start Initiative"  
09/01/2014 – 05/31/2019; Total costs: \$323,000  
The goal of this project is to evaluate a comprehensive case management program designed to reduce perinatal disparity among at-risk and underserved African American women in Richmond, Virginia.

National Institute of Justice/Department of Justice  
Co-Investigator: Saba Masho  
"Biobehavioral Study of Teen Dating Violence"  
10/01/2015-09/30/2016; Total Cost: \$149,232.00

Takeda  
Principal Investigator: Susan G. Kornstein  
"A Randomized, Double-Blind, Placebo-Controlled, Phase 4, Relapse Prevention Study Evaluating the Efficacy and Safety of Vortioxetine (5, 10 and 20 mg) in Adults With Major Depressive Disorder"  
\$572,535

Palatin Technologies

Principal Investigator: Susan G. Kornstein

Co-investigator Nan O'Connell

"Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group Trial with an Open-label Extension Phase to Evaluate the Efficacy and Safety of Subcutaneously Administered Bremelanotide in Premenopausal Women with Hypoactive Sexual Desire Disorder (HSDD) (with or without Decreased Arousal)"

\$215,134

March of Dimes

Principal Investigator: Susan G. Kornstein

"Richmond-Petersburg Baby Basics Moms Club"

\$15,000

Allergan

Principal Investigator: Susan G. Kornstein

"BOTOX (Botulinum Toxin Type A) Purified Neurotoxin Complex as Treatment for Major Depressive Disorder in Adult Females"

\$229,371

Burroughs Wellcome Fund Preterm Birth Initiative (1015040)

Principal Investigator: Timothy York

"Epigenetic Mechanisms of Preterm Birth in a Racially Mixed Sample of Pregnant Women"

06/01/2015-03/31/2019; \$600,000.

## PUBLICATIONS

### *Peer reviewed*

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Li W, Walavalkar NM, Zhang L, **Teves ME**, Peterson D, **Strauss JF**, Williams D, **Zhang Z**. Structure basis of MEIG1 in the regulation of spermiogenesis. SSR 2015 Annual Meeting. 48th Annual Meeting of the Society for the Study of Reproduction. San Juan, Puerto Rico, USA. 18–22 June 2015

Li W, Walavalkar NM, Zhang L, **Teves ME**, Peterson D, **Strauss JF**, Williams D, **Zhang Z**. Structure basis of MEIG1 in the regulation of spermiogenesis. The 15<sup>th</sup> International Symposium of Society of Chinese Bioscientists in America (SCBA). Taipei. June 26-29, 2015.

**Masho SW**, Bishop DL, Keyser-Marcus L, Svikis D. Can Health System Navigation and Behavioral Incentives Improve Pregnancy Outcomes in At-risk Women: A Pilot Study The 2014 CityMatCH Leadership and MCH Epidemiology Conference, September 17-19 at the Sheraton Phoenix Downtown in Phoenix, Arizona.

**Masho SW**, Girma S, Charles R, Hayens L, **Kornstein S**. Correlated of Postpartum Visit Attendance. The 2014 CityMatCH Leadership and MCH Epidemiology Conference, September 17-19 at the Sheraton Phoenix Downtown in Phoenix, Arizona. Abstract number 321869

Mays MK, New EP, **Chelmow D**, **Lucidi RS**. Assessing WHO 2010 semen analysis parameters for predicting pregnancy in an infertile population. American Society for Reproductive Medicine Annual Meeting. Honolulu, HI, October 22, 2014.

**Milton SH**, **Ramus R**, **Chelmow D**. Maternal and fetal outcomes with internal versus external tocometry: a meta-analysis. Society for Academic Specialists in General Obstetrics and Gynecology and American College of Obstetrics and Gynecology joint research session, ACOG Annual Clinical Meeting, San Francisco, CA, May 4, 2015.

Modi B, Kellie Archer, Jan McAllister, **Jerome F Strauss, III**: *Differential MicroRNA Regulation in PCOS Theca Cells*. Reproductive Sciences 2015; Vol-22, Issue 1: 312A – 313A

Mulubrhan M, Winta A, **Masho S**, Salemi J, Shieh C, Salihu H. The Cost of Intimate partner violence among delivery related discharges in the United States and its impact on Fetal/Maternal health. 20th Conference of the Nursing Network on Violence Against Women International (NNVAWI), in Atlanta, Georgia from April 9-11, 2015

Mulubrhan M, Winta A, **Masho S**, Salemi J, Shieh C, Salihu H. Intimate partner violence among delivery-related discharges in the United States and its impact on maternal-fetal pregnancy outcomes. HCUP (NIS), 2002-2009. Presented at the American Public Health Association 142nd Annual Meeting and Expo, November 15-19, 2014. Abstract number 299871

Rozario S, Walker D, Cha S, **Masho SW**. Racial Differences in Intimate Partner Violence and Unintended Pregnancy. Presented at the American Public Health Association 142nd Annual Meeting and Expo, November 15-19, 2014. Abstract number 304352

Urban P, Cha S, **Masho SW**. Influence of pre-pregnancy BMI and gestational weight gain on hypertensive disorders during pregnancy. Presented at the American Public Health Association 142nd Annual Meeting and Expo, November 15-19, 2014. Abstract #303599

Wallneborn JT, **Masho SW**. Intimate Partner Violence and the Effects on Breastfeeding Outcomes. The 23<sup>rd</sup> Annual Women's Health Congress Meeting. April 16-19, 2015 at the Grand Hyatt in Washington, DC.

Zhang L, Li W, **Zhang Z**. Transcriptional regulation of Sperm associated antigen 16 by S-SOX5. ASA 2015 40th Annual American Society of Andrology Conference, United States of America, Salt Lake City, April 18-21, 2015.

Zhang ZG, Li W, Zhang Y, Liu J, Zhang L, **Teves ME**, Pazour GL, James FA, Hess RA, **Zhang Z**. Intraflagellar Transporter Protein IFT20 Is Essential For Spermiogenesis In Mice. ASA 2015 40th Annual American Society of Andrology Conference. United States of America, Salt Lake City, April 18-21, 2015.

Zhang ZG, Li W, Zhang Y, Liu J, Zhang L, **Teves ME**, Pazour GL, James FA, Hess RA, **Zhang Z**. The role of IFT20 in spermatogenesis. The 15<sup>th</sup> International Symposium of Society of Chinese Bioscientists in America (SCBA). Taipei. June 26-29, 2015.

## PRESENTATIONS

Carroll AW. "Baby, Please don't go – Managing incontinence, prolapse and pelvic pain." 26<sup>th</sup> Annual Virginia Geriatrics Society Conference, Richmond, VA, April 24, 2015.

Chelmow D. Institutional responses to legislative barriers to abortion training: Lessons learned from three states. Panel discussion. North American Forum on Family Planning. Miami, FL. October 12, 2014.

Chelmow D, Brock M. Ramus R, Price A, Isaacs C. Perinatal best practices: Cesarean rates and prevention of early term deliveries. Panel discussion. Anthem QHIP Webinar. January 26, 2015.

Chelmow D. Cervical Cancer Screening Update. Hunter-Holmes Veterans Administration Medical Center, Richmond, VA. February 11, 2015.

Chelmow D. Primary HPV Screening: Ready for Prime Time? Panel Discussion. Society for Academic Specialists in General Obstetrics and Gynecology Scientific Session at the American College of Obstetrics and Gynecology Annual Clinical Meeting, San Francisco, CA, May 4, 2015.

Goldberg A. Common Issues and Problems in the First Trimester of Pregnancy. Grand Rounds. Hunter Holmes McGuire Hospital. Department of Veterans Affairs. Richmond, VA. December 2014.

Isaacs C. The Sex Talk. ACOG Annual Clinical and Scientific Meeting 2015: Society for Academic Specialists in General Obstetrics and Gynecology Scientific Session, San Francisco, CA, May 4, 2015

Isaacs C. The Sex Talk. 2014 Advances in Obstetrics and Gynecology Conference, Ware-Dunn Society, Richmond, VA, October 23, 2014.

Isaacs C. Acute Pelvic Pain: A Practical Approach. Academy of Women's Health, Women's Health 2015: 23<sup>rd</sup> Annual Congress, Washington, DC, April 19, 2015.

Hendricks-Munoz K. Skin-to-skin and microbiota acquisition in the preterm infant. Grand Rounds. Connecticut Children's Hospital of the University of Connecticut, Farmington.

Hendricks-Munoz K. Skin-to-skin and microbiota acquisition in the preterm infant. Division of Neonatology, Yale School of Medicine, New Haven, CT.

Hendricks-Munoz K. Health Impact of the Infant Microbiome. 2015 Brock Institute Scholar. Eastern Virginia School of Medicine, Norfolk, VA.

Jefferson K. iHMP: Insights into Preterm Birth through Multi-Omic Analyses of Host and Microbiome. Plenary Session Speaker, ASM General Meeting, New Orleans, LA.

Jefferson K. The Pathogenesis of Preterm Birth. Randolph Macon College, Ashland, VA.

Kornstein S. Levomilnacipran ER treatment in adult MDD patients in a recurrent depressive episode or in the first depressive episode. American Psychiatric Association Annual Meeting.

Kornstein S. Depression and Women's Mental Health. Keynote lecture at 6<sup>th</sup> World Congress on Women's Mental Health, Tokyo, Japan.

Kornstein S. The Health of Women of Color. Moderator of podcast with NIH speakers Drs. Janine Clayton and George Mensah.

Karjane NW. PMS and PMDD. Hunter Holmes McGuire VA Medical Center, Women's Health Grand Rounds Series, Richmond, VA, November 12, 2014.

Karjane NW. Diagnosis and Treatment of Polycystic Ovarian Syndrome in Adolescents: Evaluation and Management. 36<sup>th</sup> Annual Pediatric Primary Care Conference: Pediatrics at the Beach, Virginia Beach, VA, July 19, 2014.

Karjane NW. Contraception 2014: Where do we stand? VCU Practical Frontiers in Primary Care Conference, Richmond, VA, October 18, 2014.

Karjane NW. Genital Complaints in Young Girls: There's something wrong down there. Plenary Session, New Horizons in Pediatrics, sponsored by Children's Healthcare of Atlanta, Atlanta, GA, April 18, 2015.

Lucidi RS. Third Party Reproduction. Taking Control of your Ticking Clock – Richmond Fertility Workshop, University of Richmond, Richmond, VA, December 13, 2014.

Lucidi RS. Obesity and assisted reproductive technologies. ACOG Virginia Section Annual Meeting, Richmond, Virginia, September 12, 2014.

**Mann, WJ.** Martin L. Stone MD Lecture: Avoidance, Recognition and Management of Surgical Complications, 2014 Annual District II Meeting, New York City, NY 10/17/14

Milton SH, Brock E, Karjane N. Creating a Simulation for Pediatric Gynecology. NASPAG ACRM. April 2015 Orlando, FL Video Presentation.

Milton SH, Karjane NW. Girl Talk. Reproductive Health Seminar Co-Leader, St. Catherine's School, 2014.

Morosky C, Isaacs C. Neonatal Circumcision Model. Video presentation at the 2015 CREOG-APGO Annual Meeting in San Antonio, Texas, March 6, 2015.

Rigby F. "Genetic Screening in OB/GYN: Current Recommendations and Future Trends", Annual Graffagino-Collins Lecture, Woman's Hospital, Baton Rouge, LA. April 2015.

Strauss JF. Plenary lecture, Annual Meeting of the Endocrine Society, San Diego, CA.

Strauss JF. Plenary lecture, European Society of Endocrinology, Dublin, Ireland.

Strauss JF. Plenary lecture, Spanish Society for Endocrinology and Nutrition, Madrid, Spain.

Strauss JF. Special lecture, Reproductive Sciences Branch, NICHD.

York T. Epigenetic Mechanisms of Preterm Birth in a Racially Mixed Sample of Pregnant Women. Burroughs Wellcome Fund Preterm Birth Initiative, Research Triangle Park, NC.

Zhang Z. SPAG6 in cancer diagnosis and treatment. Shanghai Second Military University.

Zhang Z. The role of Spag6 in spermatogenesis. Shanghai Jiaotong University.

Zhang Z. SPAG6, more than a central apparatus protein, its new roles in cell growth, division, migration, ciliogenesis, and male and female fertility. Center for Reproductive Medicine, Baylor College of Medicine.

Zhang Z. Spermatid Transport systems, the roles of MEIG1/PACRG complex and intraflagellar transport system in spermatogenesis. Department of Comparative Biosciences, College of Veterinary Medicine, University of Illinois.

Zhang Z. SPAG6, more than a central apparatus protein, its new roles in cell growth, division, migration, ciliogenesis, and male and female fertility. Department of Comparative Biosciences, College of Veterinary Medicine, University of Illinois.

Zhang Z. Dissection of structural basis of MEIG1 in the regulation of spermatogenesis. Center for Stem Cells, Renji Hospital, School of Medicine, Shanghai Jiaotong University.

Zhang Z. Dissection of Structural basis of MEIG1 in sperm flagella formation. The 15<sup>th</sup> International Symposium of the Society of Chinese Bioscientists in America (SCBA). Taipei, Taiwan.

Zhang Z. The role of IFT20 in spermatogenesis. The 15<sup>th</sup> International Symposium of the Society of Chinese Bioscientists in America (SCBA). Taipei, Taiwan.



## Grand Rounds

	Presenter	Topic
7/10	Karen Hendricks-Munoz Gauri Gulati Valerie Coleman	Breastfeeding Update
7/17	Frances Casey	Contraception Update
7/24	John Pierce	Antibiotic Use in OB/GYN
7/31	Ellen Brock	Minimally Invasive Surgery
8/14	Wilhelm Zuelzer Gene Peterson	Perioperative Quality and Safety
8/21	Frances Casey	Family Planning Services Update
8/28	Nan O'Connell	Menopause
9/11	Philip Darney	Family Planning
9/25	Michel Aboutanous	The New Acute Care Surgery Paradigm
10/9	Ron Ramus	OB Quality Assurance
10/16	Ellen Brock	GYN Quality Assurance
10/23-24		Ware-Dunn Society Advances in Obstetrics and Gynecology Conference
10/30	Joy Draper	Practicing OB/GYN in Rural Africa
11/13	Ben Ward L Franklin Bost	Collaborations with the School of Engineering
11/20	Elisabeth Corey	Identification and Management of Human Trafficking
12/11	Mark Hathaway	Contraception
12/18		Annual Compliance Training, ICD-10
1/8	Ellen Brock	GYN Quality Assurance
1/15	Ron Ramus	Joint OB QA Assurance with Anesthesia
1/22	Nicole Karjane	Transition of Care
1/29	Michelle Meglin	GYN Issues in Children and Adolescents with Malignancy
2/12	Christopher Manipula	Gender Reassignment Surgery
2/19	Ellen Brock	GYN Quality Assurance
2/26	Megan Brady	Completely Floored! The Effects of Childbirth on the Pelvic Floor
3/12	Rachel Love	Gynecologic Care in the Breast Cancer Patient
3/19	Ron Ramus	OB Quality Assurance
3/26	Lisa Rubinsak	Non-Obstetric Surgery in Pregnancy

4//9	Jessica Ciaburri	Update on Pregnancy Counseling
4/16	Fidelma Rigby	You can do it! Engaging learners from 6-200!
4/23	Sara Parker	Critical Care Obstetrics
4/20	Ellen Brock	GYN Quality Assurance
5/7	Donna Cheng	Intimate Partner Violence
5/21		ICD-10
5/28	Thokozeni Lipato	Responsible opioid prescribing
6/11	Russell Moores	Extreme Prematurity
6/18	Ronald Ramus	OB Quality Assurance

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