



Department of Obstetrics, Gynecology and Reproductive Medicine

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## Message from the Vice Chair



Michael Pearl, MD, FACOG, FACS

Vice Chair for Research and Faculty Development, Department of Obstetrics, Gynecology and Reproductive Medicine

Professor and Director of the Division of Gynecologic Oncology and Gynecologic Oncology Disease Management Team Leader

As defined by the NIH [1]:

**“Clinical research** aims to advance medical knowledge by studying people, either through direct interaction or through the collection and analysis of blood, tissues, or other samples.”

**“A clinical trial** involves research participants. It follows a pre-defined plan or protocol to evaluate the effects of a medical or behavioral intervention on health outcomes. By taking part in clinical trials, participants not only play a more active role in their own healthcare, but they also can access experimental treatments and help others by contributing to medical research.”

Let me tell you two brief stories, stories of clinical and translational research that changed history.

In the mid-19th century, death from puerperal fever was five times higher in maternity wards staffed by medical students and doctors than in maternity wards staffed by midwives. Ignaz Semmelweis, a young physician at the Vienna General Hospital who considered scientific inquiry part of his mission as a physician, observed that the staff on the medical wards, but not the midwives, performed autopsies in the morning before making ward rounds. He hypothesized that the medical staff carried the infection from the autopsy room to the mothers they examined on the maternity ward. He ordered his staff to wash their hands before each examination in a solution of chlorinated lime. In 1848, the mortality rate on his ward dropped from 18 percent to 1 percent, and for two consecutive months, no women died of puerperal fever in his ward. In 1861, he published his work, “Die Aetologie, der Begriff und die Prophylaxis des Kindbettfiebers” (The Etiology, The Concept, and the Prophylaxis of Childbed Fever). In the ultimate irony, he died of infection from a surgical injury in 1865.

In the 1920s, in the midst of the Great Depression, cattle across the Midwest were dying of internal bleeding without an obvious etiology. Veterinarians identified moldy hay as integral in the development

of the hemorrhagic disease that became known as “sweet clover disease.” Frustrated over losing his cattle, a farmer, Ed Carlson, took a milk can of uncoagulated blood to Karl Link, a researcher at a local agricultural research station. After six years of intensive effort, Link’s laboratory identified dicoumarol, an oxidized form of naturally occurring coumarin, as the active compound. The research was funded by the Wisconsin Alumni Research Foundation (WARF); WARF received the patent rights in 1941. Link, still funded by WARF, subsequently investigated approximately 150 variants of naturally occurring coumarin in an attempt to develop an effective rodenticide. The 42nd compound demonstrated substantial activity, became known as “warfarin” and was initially marketed as a rodenticide. It was transitioned to clinical use as an anticoagulant; today, “Coumadin” is the most widely used anticoagulant in the world. “The can of uncoagulated blood lying on the floor of Link’s laboratory was to change the course of history, and little did Link know what the long-term implications would be.” [2]

These are but two stories, amongst so many, that illustrate the vital role clinical and translational research has played in our lives; we live longer and with better health than at time in human history. At the end of the 1800s, median life expectancy in the US was 42 years, and the three leading causes of death were infectious. By the end of the 1900s, life expectancy had doubled and the five leading causes of death were non-infectious.

In contemporary times, the potential, and the need, for continued medical advances through clinical and translational research are extraordinary. “Personalized medicine” with targeted therapy based on genetic analysis is transforming cancer therapy, but how will we manage antibiotic-resistant “superbugs,” epidemics of highly virulent viruses readily transported by modern travel and climate changes, our current leading causes of death (i.e., heart disease, cancer), and the afflictions of aging (e.g., dementia) without ongoing innovation through clinical and translational research?

Now, though, the clinical and translational research enterprise is in crisis. For example, there has been a 90 percent reduction in patient enrollment in Phase III gynecologic oncology clinical trials since 2011 (Figures 1 and 2). [3]

Figure 1

### The Current State: A Severe Decline in Availability on Clinical Trials for Women with Gynecologic Cancer

Women Enrolled in NCI CTEP Gynecologic Cancer Trials

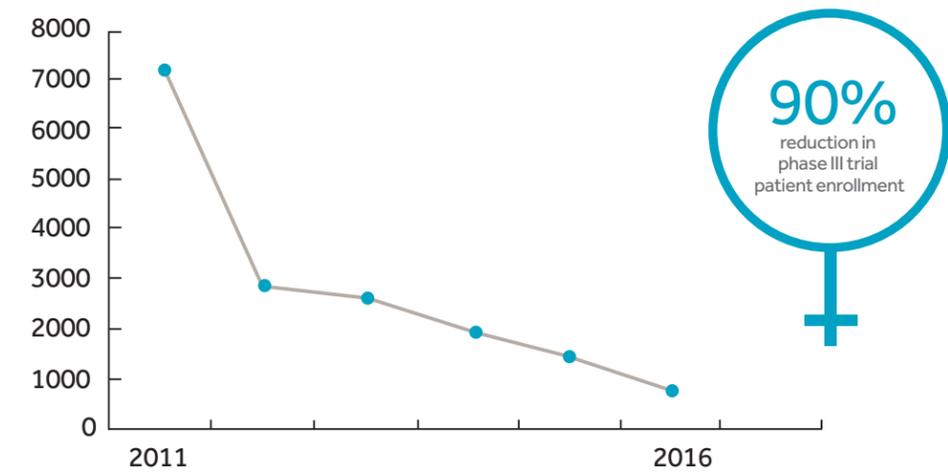


Figure 2

### NCI CTEP-sponsored Gynecologic Oncology Available Clinical Trials

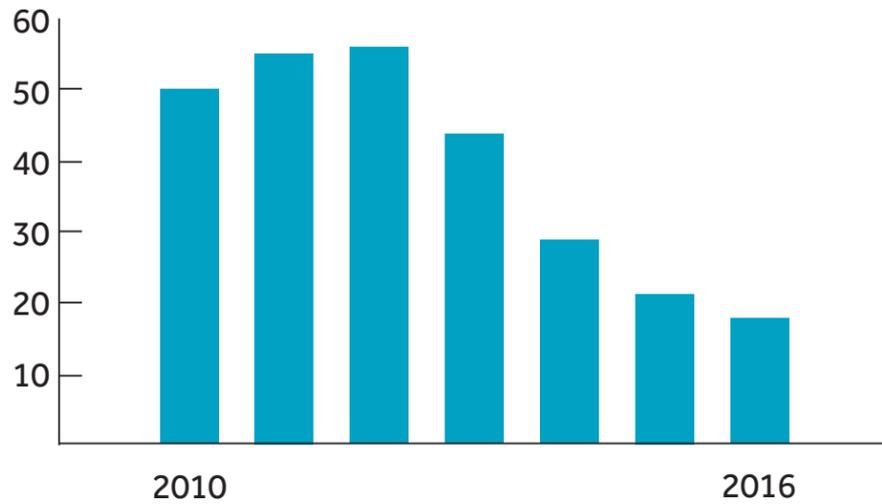
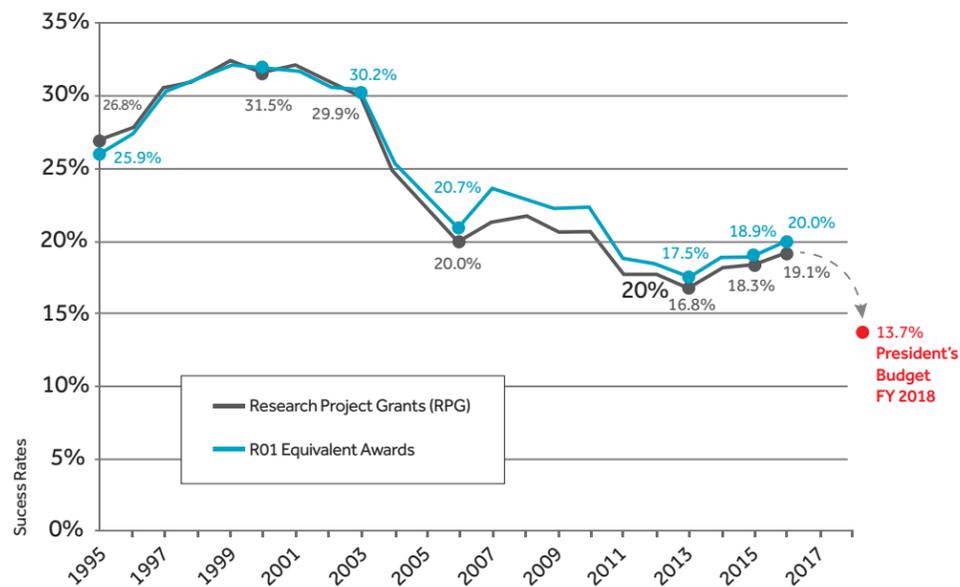


Figure 3

### Success Rates



Source: NIH Data Book: <http://report.nih.gov/nihdatabook/index.aspx> and supplemental tables available in RePORT

Many reasons for this crisis have been put forth; decreased or stagnant funding (e.g., the success rate for NIH funding has remained functionally stagnant for the past three years; 18.1 percent in fiscal year 2014, 18.3 percent in 2015 and 19.1 percent in 2016 (Figure 3). [4]), skyrocketing costs, suffocating regulation, lack of patient participation, negative public perception, insufficient infrastructure to train and support clinical researchers, ever-increasing non-research burdens on active clinical researchers, the reasons are myriad and complex. Consequently, "there is a growing fear that if we do not establish a better support system for clinical research, we will lose a generation of clinical investigators needed for sophisticated, scientifically valid clinical research." [5]

So, what can we do? Quitting is not an option. Many of these reasons are beyond our individual ability to address; rather than bemoan the difficulties, we can, and must, find a way to succeed with the resources that are available. Fortunately, two crucial resources remain available to us: 1) departmental support and; 2) collaboration.

First, multi-faceted, long-term departmental support is essential to develop and sustain a productive and successful clinical and translational research program. The leadership must make clinical and translational research an on-going departmental priority, not just in words but in actions. Recruiting individuals with interests in conducting research will augment existing faculty and staff who are already researchers and may motivate those who should be encouraged to explore research activities. Providing protected time is absolutely vital, as is a comprehensive research infrastructure (e.g., physical facilities with appropriate equipment and supplies, support staff such as a research coordinator, technicians, biostatistician, and access to shared cores services). And yes, financial support (e.g., salary support, "seed" or start-up funds) is crucial. Without committed, long-term departmental support to allow researchers to conduct their initial work, the probability of establishing an externally funded, productive and successful clinical and translational research program is vanishingly low.

Second, collaboration is a resource-multiplier. As I wrote in my report last year, "In academic departments such as ours, scientific researchers and clinicians are able to closely collaborate. On one hand, this collaboration allows clinicians to guide researchers towards addressing important clinical questions; in many circumstances, it is a question raised by a clinician that leads to a treatment breakthrough. On the other hand, this collaboration allows researchers to rapidly bring innovative treatment to the clinicians for patient care."

There are four levels of collaboration and at each level, the collaboration may be vertical or horizontal:

- 1) Intra-departmental;
- 2) Inter-departmental;
- 3) Between schools within our university;
- 4) Between institutions.

A Vertical Research Collaboration (VCR) focuses on a highly specific research project in collaboration with another researcher from the same field without interdisciplinary or transdisciplinary components. In contrast, a Horizontal Research Collaboration (HRC) involves diverse interdisciplinary and transdisciplinary approaches to a core research project. It is "conducive to collaborate because individuals from different cultures and with different belief systems think differently, and collaboration is likely to spur innovative ideas and solutions." [6]

As you will see in this report, we've established productive collaborations at each of these levels and directions. Among the many such collaborations, let me give you a few representative examples.



Dr. Lisa Pastore (Research Division) presenting her Prenatal Genetic Testing project at the monthly Research Meeting.

Within our department, Drs. Lisa Pastore and James Stelling are investigating "*Genetic Risk Factors for Female Fertility Delays*." Dr. Pastore is also collaborating with Dr. Kimberly Herrera on a "*Study for People Considering or Using Prenatal Genetic Testing*."

Between departments of Stony Brook Medicine, the midwives, under the leadership of Christina Kocis, CNM, DNP are studying "*The Effect of Peripartum Antibiotics on Vertical Transmission of the Maternal Microbiome*" with Dr. Gretchen Mockler in the Department of Family, Population & Preventative Medicine. Dr. David Garry is exploring a number of research questions on opiate-addicted mothers with several members of the Department of Psychiatry, including Drs. James Swain and Helen Fox.

Between schools of Stony Brook University, the midwives (School of Medicine) are teaming with Dr. Marci Lobel in the Department of Psychology (School of Arts and Sciences) to assess "*Social Identities in Pregnancy: Effects on Maternal Health and Birth Outcomes*." Dr. Pastore is collaborating with Dr. Lobel (and Dr. Lisa Rubin at the New School) to investigate "*Decisional Distress and Uncertainty among Individuals Considering Preimplantation Genetic Screening/Diagnosis*."

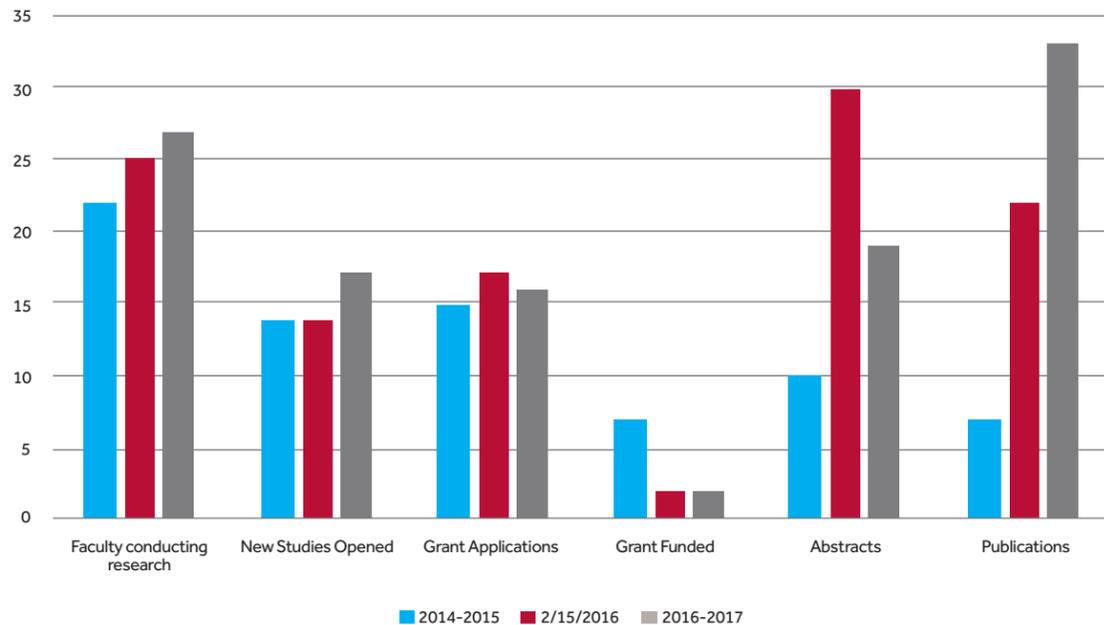
Dr. Gerald Quirk has a long standing collaboration, now NIH-funded, to develop "*A Novel Approach to Interpretation of Fetal Heart Rate Signals*" with Dr. Petar Djurić, Professor and Chairman of the Department of Electrical and Computer Engineering in the College of Engineering and Applied Sciences. This project has expanded to include Dr. I.V. Ramakrishnan, Professor of Computer Science and Associate Dean of the College of Engineering and Applied Sciences.

At the multi-institutional/global level, Dr. Christina Maxis is the principal investigator of the healthcare component of a SUNY-wide initiative, "*Learning Through Development*." This major project, to establish

a sustainable village and learning community in Akayè, Haiti, is directed by Rosemary Ortlieb-Padgett at SUNY's Office of Global Affairs and draws upon the collaboration of multiple SUNY campuses. The W.K. Kellogg Foundation awarded SUNY an \$800,000 grant to develop educational, economic and social programs, resources and services through a multi-organizational process. Students, faculty and staff from 10 SUNY campuses and five not-for-profit organizations are working on the project, each providing different specialties. The SUNY participants are the College of Environmental Science and Forestry (landscape architecture, urban planning, and sustainable design), University at Albany (international development for management), Binghamton University (public administration), University at Buffalo (social work), Buffalo State College (performing arts), Cobleskill (agriculture and fisheries), Nassau County Community College (nursing), SUNY New Paltz (disaster mental health), Stony Brook University (health sciences), and SUNY Upstate Medical University (public health). The not-for-profit organizations are the African Methodist Episcopal Church Service and Development Agency (AME-SADA), Effort Commun Pour Le Developpement de L'Arcahaie (ECODA), Haiti Development Institute, Hope on a String, and YouthBuild International. [7]



Dr. Gerald Quirk (Maternal Fetal Medicine) in discussion at the weekly Chairman's Rounds.



### Research Activities

Currently, we have 54 open studies with 18 of our faculty and six collaborators serving as principal investigators. This table provides a graphical summary of our research activities for the past three academic years.

With the unwavering support of our chairman, Dr. Todd Griffin, the clinical division directors, the Research Division staff led by Elizabeth Roemer, the faculty and staff of the Department of Obstetrics, Gynecology & Reproductive Medicine, and our research collaborators, we had a productive and successful year despite the challenges. My humblest congratulations to everyone; we have an outstanding team. I'm looking forward to an even more productive and successful year in 2017-2018.

#### References:

- 1 <https://www.nichd.nih.gov/health/clinicalresearch/Pages/index.aspx>
2. Duxbury BM, Poller L. The oral anticoagulant saga: past, present, and future. *Clin Appl Thromb Hemost.* 2001 Oct;7(4):269-75
- 3 <https://www.sgo.org/wp-content/uploads/2012/09/SGO-Clinical-Trial-Crisis-FINAL.pdf>
- 4 <http://faseb.org/Science-Policy--Advocacy-and-Communications/Federal-Funding-Data/NIH-Research-Funding-Trends.aspx>
- 5 Klein S. <http://www.afmr.org/multimedia/2009/Clinical-Research-Conference/jim200299.pdf>
6. Shaikh A. <https://www.elsevier.com/connect/a-brief-guide-to-research-collaboration-for-the-young-scholar>
7. <http://www.esf.edu/communications/view.asp?newsID=6048>

## Research Division Overview

### Mission

The Department of Obstetrics, Gynecology and Reproductive Medicine recognizes the importance of research by our faculty members, residents and students. One of our core values, as part of the academic mission of the department, is to establish an atmosphere of respect and excitement for research. Our commitment to multidisciplinary team-based women's healthcare is a key component of our efforts to create and expand knowledge and improve the quality of our patients' lives through excellent basic, translational, and clinical research. The Department's mission to foster clinical investigation and translational research amongst the faculty is supported by an established and rapidly growing Division of Research.

Critical to the success of our endeavor is the integration of the pillars of academic medicine: clinical care, education, and research. Excellence in one of these domains is always dependent upon success in the other two. To this end, the Division of Research is dedicated to supporting our faculty members, residents and students in a variety of ways. A few of these, all part of an ever-expanding list, include:

- Aiding our investigators in developing their research interests
- Assisting researchers in the design and development of their projects
- Providing assistance with regulatory compliance
- Helping to identify and secure funding for research projects
- Providing mechanisms to find collaborators in other departments
- Creating opportunities to meet with other investigators to discuss common interests
- Fostering inter-departmental and inter-institutional collaborative research efforts
- Hosting regular research meetings for faculty and staff where projects can be discussed



Liz Roemer (Research Coordinator) and Dr. Julia Opatich (General Gynecology & Obstetrics) in conversation during a monthly research meeting.

## Staff



### **Michael Pearl, MD | Vice Chair for Research and Faculty Development**

Dr. Michael Pearl is Professor and Director of the Division of Gynecologic Oncology, as well as the Gynecologic Oncology Disease Management Team Leader at Stony Brook Medicine. He is the Principal Investigator at Stony Brook Medicine for NRG Oncology, a National Cancer Institute-funded cooperative research group dedicated to promoting excellence in the quality and integrity of scientific research. As Vice Chair, Dr. Pearl oversees departmental research projects and advises faculty and staff on related matters.



### **Elizabeth Roemer, MA | Research Coordinator**

Elizabeth Roemer is the primary point of contact between the Division of Research and the SUNY Research Foundation offices and the Stony Brook Office of Vice President for Research. She facilitates interaction with academic departments on and off campus and aids faculty and residents in developing their research interests. In addition, Ms. Roemer identifies and tracks funding opportunities and works with faculty to develop strategies and proposals for grant and clinical research funding. She is the Division's key resource to obtain auxiliary services and assistance for research enterprises.



### **Lisa Pastore, PhD | Associate Professor**

Lisa Pastore recently joined the Division. She has a PhD in Epidemiology with a minor in Biostatistics with specialization in the genetics of infertility, genetic counseling and infertility, psychology of infertility, and infertility related to Polycystic Ovary Syndrome. Dr. Pastore has experience with NIH funding and an extensive history of successful external research funding. She has over 50 peer-reviewed publications and more than a decade of teaching and mentoring experience.



### **Wen-Tien Chen, PhD | Research Professor**

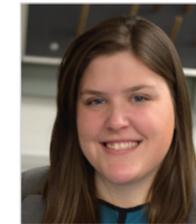
Research Professor Wen-Tien Chen is an international expert in cancer metastasis. Before joining Stony Brook Medicine in 1998, Dr. Chen was the Director of the Tumor Invasion and Metastasis Program at Georgetown University Lombardi Cancer Center. Throughout his career, he has developed novel methods to isolate and analyze metastatic cancer cells and holds a number of patents for these technologies. His most recent work focuses on circulating tumor cells (CTCs) and their use in detecting endothelial ovarian cancer.

## Staff



### **Deidre Lee, MHS | Senior Research Support Specialist**

Deidre Lee provides support for faculty and residents in their research studies and coordinates ongoing industry-sponsored clinical trials. In this role, she assists with preparation and submission of regulatory documents, consent and enrollment of eligible patients as study participants, and data collection and management. Ms. Lee also aids in IRB submissions, grant writing, chart reviews, and is responsible for supervising undergraduate and medical students as research assistants.



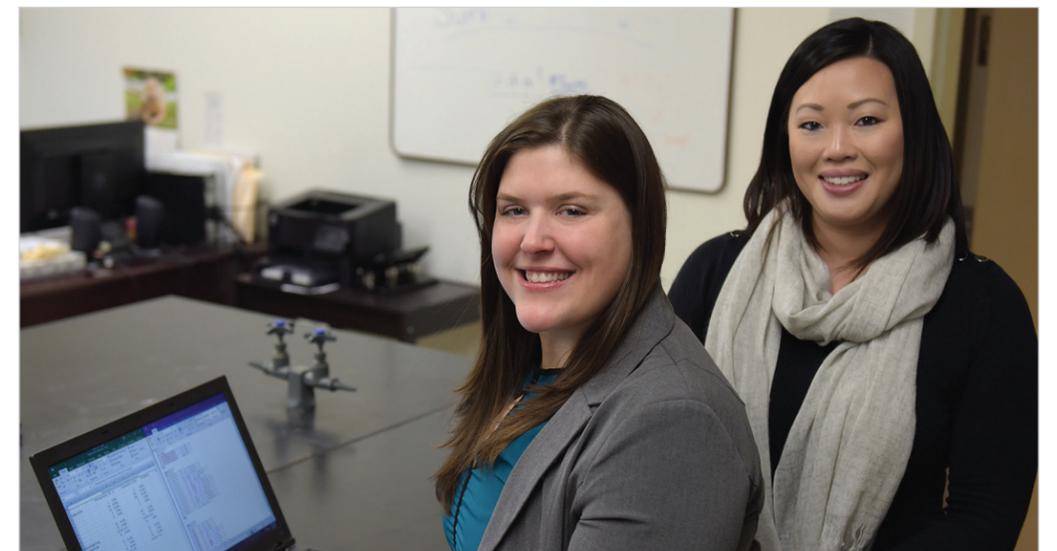
### **Samantha Dayton, BS | Research Assistant**

Samantha Dayton is a MPH/MBA student, concentrating in healthcare analytics. She is responsible for supporting department faculty and residents in the design and biostatistical analysis of research projects. Her training in analysis includes regression modeling, longitudinal data analysis, mixed method modeling, and survival analysis. She is trained in qualitative methods as well, for focus group and interview analysis. She also provides IRB application support and assists in the creation of databases and surveys used in research projects.



### **Maureen Rogers | Administrative Assistant**

Maureen Rogers provides both general and specialized administrative support for the Division of Research and the Department of Obstetrics, Gynecology and Reproductive Medicine. In this role, she works to expedite documentation required for faculty research proposals and projects. In addition, Ms. Rogers acts as the point of contact for the Division of Midwifery's public programs, including Breastfeeding Support Groups and meetings describing the role of midwives.



Samantha Dayton (Biostatistician) and Deidre Lee (Senior Research Support Specialist).

## Highlights

A number of important events impacted the Research Division this year. Key among them were:

- Natalie Crnosija has left us to focus full time on her education. Best of luck in graduate school, Natalie!
- Sam Dayton has joined us as a student employee, responsible for supporting department faculty and residents in the design and biostatistical analysis of obstetrics and gynecologic research projects. She also provides IRB application support and assists in the creation of databases and surveys used in research projects.
- CORHIS approved 17 new Ob/Gyn projects and we currently have 54 projects approved and underway.
- Faculty, fellows and residents produced 33 peer-reviewed publications with an additional nine in review, as well as three book chapters and 19 meeting abstracts.
- Department faculty submitted 15 funding applications either as PI or in collaboration with others. The department currently has 10 actively funded studies (not including the two Cancer Center clinical trials).



Dr. Michael Pearl (Gynecologic Oncology and Vice Chair for Research) and Dr. Hannah Valdes (Resident) discussing her data at the 2017 Resident Research Day.

## Grants and Contracts

Over the past year, the Department of Ob/Gyn applied for 1 to 2 grants with each quarterly NIH cycle, as well as off-cycle NIH and NGA applications. There were multiple additional applications for both internal and external funds with our faculty as co-investigators.

### Grants Submitted

This year saw 15 applications: eight with our Ob/Gyn faculty as PIs and an additional seven applications with Ob/ Gyn faculty as co-investigators.

#### With Ob/Gyn faculty as PIs:

- May 2017: **Dr. Lisa Pastore** (Research Division) submitted a Clinical Research TRO project to the Dean's office for support of her preimplantation genetic testing project.
- February 2017: **Dr. Lisa Pastore** (Research Division) submitted an NIH R21: "Preimplantation Genetic Testing: Ethical, Social, and Financial Influences on Patient Distress and Uncertainty" with co-investigators **Dr. James Stelling** (Reproductive Endocrinology), *Dr. Marci Lobel* (Department of Psychology, School of Arts and Sciences, SBU) and *Dr. Lisa Rubin* (Department of Psychology, New School for Social Research).
- February 2017: **Dr. Gerald Quirk** (Maternal Fetal Medicine) and *Dr. Petar Djuric* (Department of Electrical Engineering, School of Engineering, SBU) submitted an NIH R01: "Predictive analytics for monitoring the well-being of fetuses" with co-investigators **Dr. David Garry** (Maternal Fetal Medicine) and *Dr. I.V. Ramakrishnan* (Department of Computer Science, School of Engineering, SBU).
- November 2016: **Dr. Lisa Pastore** (Research Division) resubmitted an NIH R01: "Genetic Risk Factors for Diminished Ovarian Reserve in Young Women" with coinvestigator **Dr. James Stelling** (Reproductive Endocrinology).
- November 2016: **Dr. Gerald Quirk** (Maternal Fetal Medicine) and *Dr. Petar Djuric* (Department of Electrical Engineering, School of Engineering, SBU) prepared an NIH R01 resubmission: "Inference machinery for monitoring the well-being of fetuses by intrapartum signals and clinical data" with co-investigators **Dr. David Garry** (Maternal Fetal Medicine) and *Dr. I.V. Ramakrishnan* (Department of Computer Science, School of Engineering, SBU).
- July 2016: **Dr. Diana Garretto** (Maternal Fetal Medicine) submitted: "A randomized control trial of Vitamin D prophylaxis in pregnancy in the prevention of hypertensive disorders of pregnancy and the resulting preterm deliveries" to Lumara.
- July 2016 **Dr. Lisa Pastore** (Research Division) resubmitted an NIH R21: "Investigating a Model of Decisional Distress and Decisional Uncertainty among Individuals Considering Preimplantation Genetic Screening/Diagnosis (PGS/PGD)" with co-investigators **Dr. James Stelling** (Reproductive Endocrinology), *Dr. Marci Lobel* (Department of Psychology, School of Arts and Sciences, SBU) and *Dr. Lisa Rubin* (Department of Psychology, New School for Social Research).
- July 2016: **Dr. Michael Pearl** (Gynecologic Oncology) submitted a research contract "Cancer Cell Enrichment Platform" to Vitatex.

#### With Ob/Gyn Faculty as co-Investigators:

- June 2017, *Dr. Esther Speer*, PI (Department of Pediatrics) submitted an NIH K08: "Characterizing activity of the candidate sepsis therapeutic pentoxifylline alone and in combination with anti-infective and anti-inflammatory agents on bacteria-induced neonatal inflammation" with and **Dr. David Garry** (Maternal Fetal Medicine) as one of her Advisory Committee.
- May 2017: *Dr. Kathleen Stergiopoulos* (Department of Medicine) submitted a TRO to the Dean's office with **Dr. Cecelia Avila** (Maternal Fetal Medicine) as a co-investigator.
- February 2017: *Dr. Christine DeLorenzo*, (Department of Psychiatry) submitted an NIH R01 "Identifying in vivo measures of adult hippocampal neurogenesis with depressed cancer patients undergoing chemotherapy" with **Dr. Michael Pearl** (Gynecologic Oncology).

## Grants and Contracts

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- February 2017: *Dr. James Swain* (Department of Psychiatry) submitted an NIH R01 "Maternal Brain Social Emotion Regulation in Early Postpartum" with **Dr. David Garry** (Maternal Fetal Medicine) and **Dr. Christina Kocis** (Midwifery).
- October 2016: *Dr. Maricedes Acosta* (Department of Physiology and Biophysics) submitted an NIH R21: "Defining the circulating exosomal miRNA expression in association with gestational weight gain (GWG)" with co-investigators **Dr. David Garry** (Maternal Fetal Medicine) and **Dr. Christina Kocis** (Midwifery).
- October 2016: *Dr. Brittain Mahaffey* (Department of Psychiatry) submitted an NIH K23: "An Internet-Delivered Mind-Body Program for Reducing Prenatal Maternal Stress" with **Dr. David Garry** (Maternal Fetal Medicine) and *Dr. Marci Lobel* (Department of Psychology, School of Arts and Sciences, SBU) as members of her mentorship team.
- September 2016: *Josephine Connolly Schoonen* (Nutrition Division, Department of Family Population and Preventive Medicine) with **Pamela Koch** (Midwifery) submitted an application to the New York State Department of Health for their "Pediatric Obesity Prevention: Creating Breastfeeding Friendly Communities" program.

### Current active accounts

We currently have 10 active funded studies, seven as the home department and three co-funded with another department, as well as two ongoing Gynecological Cancer clinical trial funds.

#### With Ob/Gyn as home department:

- PIs: **Dr. Gerald Quirk** (Maternal Fetal Medicine) and *Dr. Petar Djurić* (Department of Electrical Engineering & Computer Science), No cost extension of an NIH R21 "Machine Learning with Generative Mixture Models for Fetal Monitoring."
- PI: **Dr. Michael Pearl** (Gynecologic Oncology) subcontract from a Vitatex NIH SBIR: "Vita-Cap Tube to Preserve Circulating Tumor Cells in Blood (Phase I & II)."
- PI: **Dr. Michael Pearl** (Gynecologic Oncology) subcontract from Vitatex: "Biotech: Blood Assays to Analyze Tumor Heterogeneity and Drug Resistance."
- PI: **Dr. Gerald Quirk** (Maternal Fetal Medicine) clinical trial from Glaxo Smith Kline: "A Randomized, Double-Blind, Multicenter, Phase III Study Comparing the Efficacy and Safety of Retosiban Versus Placebo for Women in Spontaneous Pre-term Labor."
- PI: **Dr. Gerald Quirk** (Maternal Fetal Medicine) clinical trial from Partosure "The Clinical Evaluation of the PartoSure Test."
- PI: **Dr. Michael Pearl** (Gynecologic Oncology) award from the Ovarian Cancer Research Fund "Woman to Woman at Stony Brook University Cancer Center."
- PI: **Dr. Melissa Strafford** (General Obstetrics and Gynecology) year two of funding from the Ryan Fellowship Fund.
- PI: **Dr. Michael Pearl** (Gynecologic Oncology) two ongoing clinical trial funds: the "NRG Oncology Foundation Contract" and "Gynecologic Oncology Group."

#### Ob/Gyn faculty as Co-investigators:

- PI: **Dr. Todd Griffin** (General Obstetrics and Gynecology) combined funding for the Departments of Obstetrics, Gynecology & Reproductive Medicine and Urology: New York State Senate Initiative funding for the ObGyn/Urology Women's Clinic.
- PI: *Dr. Sharon Nachman* (Department of Pediatrics) with **Dr. Cecelia Avila** (Maternal Fetal Medicine), contract with Westat Corporation for NICHD International and Domestic Pediatric and Maternal HIV Studies Coordinating Center.
- Co-PIs: *Dr. Yupo Ma* (Department of Pathology) and **Dr. Cecelia Avila** (Maternal Fetal Medicine), on a NYSTEM contract: "Transformation of Stem Cell Based Transplantation Therapy."

## Research by Departmental Division

### General Gynecology and Obstetrics



#### Jennifer Blaber, MD

Dr. Jennifer Blaber has continued as a co-Investigator on "The Prevalence of Leiomyosarcoma Following Hysterectomy or Myomectomy", a multicenter retrospective review of the prevalence of leiomyosarcoma following gynecologic surgery. She also continued to mentor resident Isabel Eisner, MD, on her resident project: "Patient satisfaction with same-day discharge following laparoscopic hysterectomy." Dr. Eisner did her oral presentation at the 2017 Resident Research Day (RRD) in June.



#### Elizabeth Garduno, MD, MPH

Residency Program Director Dr. Elizabeth Garduno commits a significant amount of time to the education of residents. She mentored resident Jenny Zhang, MD, on her 2016 RRD project: "Patient Understanding and Satisfaction in Informed Consent for Labor and Delivery." Jenny received the 2016 The James N. Droesch, M.D. Memorial Award for Minimally Invasive Surgery for her work, which she used to attend the AAGL 45th Annual Global Congress, held Nov. 14-18, 2016. In addition, Dr. Garduno and Dr. Zhang were coauthors with Dr. Malini Persad (Maternal Fetal Medicine Fellow), Dr. David Garry (Maternal Fetal Medicine) and Natalie Crnosija (Research Division) on an ACOG poster in October: "Sign by the X in between contractions: readdressing informed consent in the obstetric patient."



#### Todd Griffin, MD

Dr. Todd Griffin collaborates on multiple research projects, even with the demands on his time as Chair of the Department of Obstetrics, Gynecology and Reproductive Medicine. He is Principal Investigator for "The Prevalence of Leiomyosarcoma Following Hysterectomy or Myomectomy." Dr. Griffin is involved in studies related to pregnancy and cadmium with Dr. John Kovach (Department of Family, Population & Preventive Medicine), and Dr. James Bernasko (Maternal Fetal Medicine). He was coauthor with Dr. Andre Plair (Ob/Gyn Resident), Dr. Melissa Henretta (Gynecologic Oncology), Dr. Michael Pearl (Gynecologic Oncology), Dr. Jessica Parker (Ob/Gyn Resident) and Natalie Crnosija (Research Division) on several publications and presentation resulting from studies on hospital readmission using the NYSDOH (New York State Department of Health) SPARCS database. Dr. Griffin was also the PI on award from the NYS Senate given jointly to Ob/Gyn and Urology for support of the ObGyn/Urology Women's Clinic.

## General Gynecology and Obstetrics

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### Christina Pardo Maxis, MD, MPH

Dr. Christina Pardo Maxis continues her commitment to global health with her ongoing efforts in Haiti. She has been working with Dr. Mark Sedler (Associate Dean for Global Medical Education) as the Stony Brook representative on a statewide collaboration involving 10 SUNY campuses and five not-for-profit organizations to establish a sustainable village and learning community in Akayè, Haiti. The other SUNY campuses involved include: University at Albany, Binghamton University, University at Buffalo, Buffalo State College, SUNY Cobleskill, SUNY-ESF, Nassau County Community College, SUNY New Paltz, and SUNY Upstate Medical University. Dr. Maxis will direct Stony Brook faculty and staff, to bring expertise to the project in the area of health sciences. Dr. Maxis is also working closely with Dr. Melissa Peskin-Stolze to develop a global medicine track for our residents.



### Melissa Strafford, MD

Dr. Melissa Strafford was awarded year two of funding for our department's Ryan Residency Program. Directing this program is a natural outgrowth of her driving interest in contraception and family planning as an integral part of women's healthcare. Dr. Strafford was also appointed as Associate Residency Program Coordinator.



Dr. Beth Garduno (Residency Director) and Dr. Ebenezer Babalola (Director of Gynecologic Surgical Services) at a monthly research meeting.

## Maternal Fetal Medicine



### Cecilia Avila, MD

Dr. Cecilia Avila continues her work in both chorioamnionitis and stem cells. She was a coinvestigator with Dr. Kathleen Stergiopoulos (Department of Medicine) on a TRO application submitted to the Dean's office. She was coinvestigator on two active projects: "A Contract with Westat Corporation for NICHD International and Domestic Pediatric and Maternal HIV Studies Coordinating Center" with PI Dr. Sharon Nachman (Department of Pediatrics) and "Transformation of Stem Cell Based Transplantation Therapy" a NYSTEM contract with co-PI Dr. Yupo Ma (Department of Pathology).



### David Baker, MD

Dr. David Baker's interest in women's use of herbal supplements has resulted in his appointment as an Honorary Research Fellow at The New York Botanical Garden (NYBG). His solid and long-term collaboration with NYBG continues with investigations into the identification of a number of herbal supplements by DNA barcoding. He has a paper "Associations between supplement information sources and menopausal women's consumption of herbal supplements" in review. In addition, Dr. Baker participated in review of the programs at ACOG: "Who teaches the teacher" and is working on "Diet and allergies: a review." He was a coinvestigator on Dr. Michael Demishev's project "Mechanism of progesterone to prevent preterm labor." Dr. Baker's previous work on vulvodynia resulted in publication of "Inflammatory Markers in Vestibulodynia" with coauthors Dr. Christina Kocis (Midwifery Division) and Dr. Tatyana Peresleni. Dr. Baker was also the co-author of "Cytomegalovirus, herpes simplex virus, adenovirus, coxsackivirus, human papillomavirus," a chapter in the 5th edition of High-Risk Pregnancy: Management Options.



### James Bernasko, MD, CHB, CDE

Dr. James Bernasko contributes critical clinical insights as a specialist in high-risk pregnancy to multiple collaborators, including Dr. Brittain Mahaffey (Department of Psychiatry) and Dr. Maricedes Acosta (Department of Physiology and Biophysics). He continues to collaborate on "Pregnancy and Cadmium Study (PACS)" with Dr. Todd Griffin (General Gynecology & Obstetrics) and Dr. John Kovach (Department of Family, Population & Preventive Medicine). He was coauthor with Dr. Kimberly Herrera and Dr. David Garry on two papers, and on an ACOG poster with Dr. Jennie Ou (Ob/Gyn Resident) Dr. Malini Persad (MFM Fellow), Dr. J. Gerald Quirk and Dr. Herrera. Dr. Bernasko also authored "Gestational Diabetes Screening: The International Association of the Diabetes and Pregnancy Study Groups Compared With Carpenter-Coustan Screening."

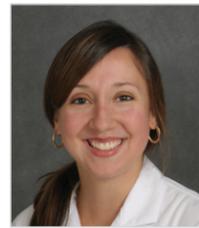
## Maternal Fetal Medicine

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### Michael Demishev, MD

Dr. Michael Demishev has been working on his prospective clinical study: "Effects of Progesterone on Biochemical Markers in Pregnancy." The objectives of this study are to assess immune physiologic response due to progesterone supplementation in pregnant women by evaluating the biochemical markers in vaginal and oral flora and comparing to women who do not receive these interventions. Dr. Demishev was also a coauthor with Dr. Malini Persad (MFM Fellow), Dr. Jackie Nunziato (Ob/Gyn Resident), Dr. Sevan Vahanian (MFM Fellow), Dr. J. Gerald Quirk and Dr. David Garry on an ACOG poster: "Use of vacuum extraction during cesarean delivery: Is it safe?"



### Diana Garretto, MD

Dr. Diana Garretto has five research projects underway: two prospective clinical studies and three retrospective cohort studies. The prospective studies include: "Ductus arteriosus changes with increasing gestational age--a prospective cohort study" and "A Randomized Control Trial of Vitamin D Prophylaxis in the Prevention of Hypertensive Disorders of Pregnancy." This latter project is with co-investigator Dr. Malini Persad (MFM fellow), and will likely be Dr. Persad's thesis project. Dr. Garretto's first two retrospective cohort studies are: "Does a Cesarean section in the second stage of labor confer an increased risk of cervical insufficiency in the subsequent pregnancy?" with co-investigator Dr. Kimberly Herrera and Dr. Ayisha Buckley (Ob/Gyn Resident) and "Retrospective cohort study of Vitamin D deficiency in pregnant and postpartum breastfeeding women after bariatric surgery" with co-investigator Dr. Baker and Dr. Tanya Peresleni. For her third retrospective, "Demographics and neonatal abstinence syndrome in pregnant women with active opioid abuse compared to pregnant women on opioid maintenance medications over the last 10 years in a tertiary care hospital," Dr. Garretto is mentoring first-year medical student Victoria Ly through the Scholarly Concentration Program. In addition, Dr. Garretto is continuing her collaboration with Dr. Heather Findletar-Hines (Midwifery Division) on "Preventing the Primary Cesarean," an ACNM QI project to decrease cesareans in nulliparous, term, singleton and vertex presentation women. Dr. Garretto had three first-author publications: "Vitamin A Status in Breast Milk and Serum After Bariatric Surgery in an Urban Population," "Obesity May Be Protective against Severe Perineal Lacerations" and "Bariatric Surgeries in Pregnancy As Different as One May Think?" She was also a coauthor on "A SWIFT Method for Handing Off Obstetrical Patients on the Labor Floor," which has been accepted for publication by the Journal of Patient Safety. Dr. Garretto submitted two grant applications this year: a TRO to the Dean's office and "A randomized control trial of Vitamin D prophylaxis in pregnancy in the prevention of hypertensive disorders of pregnancy and the resulting preterm deliveries" to Lumara.

## Maternal Fetal Medicine



### David Garry, DO

Dr. David Garry has extensive clinical and administrative responsibilities. He is both the Maternal Fetal Medicine Division Director and the Director of Labor and Delivery (L&D). This leaves him limited time for research, but he is a very sought-after collaborator. Dr. Garry was included on six grant applications this year. In October, he was a co-investigator with Dr. Christina Kocis on Dr. Maricedes Acosta's (Department of Physiology and Biophysics) NIH R21 application: "Defining the circulating exosomal miRNA expression in association with gestational weight gain (GWG)" and was a member of the mentorship team on Dr. Brittain Mahaffey's (Department of Psychiatry) NIH K23: "An Internet-Delivered Mind-Body Program for Reducing Prenatal Maternal Stress" with Dr. Marci Lobel (Department of Psychology, School of Arts and Sciences, SBU). In November and February, he and Dr. I.V. Ramakrishnan (Department of Computer Science, School of Engineering, SBU) were co-investigators on two of Dr. J. Gerald Quirk and Dr. Petar Djuric's (Department of Electrical Engineering, School of Engineering, SBU) NIH applications. These were: "Inference machinery for monitoring the well-being of fetuses by intrapartum signals and clinical data" and "Predictive analytics for monitoring the well-being of fetuses." In February, Dr. Garry and Dr. Kocis were coinvestigators with PI Dr. James Swain (Department of Psychiatry) on an NIH R01 "Maternal Brain Social Emotion Regulation in Early Postpartum." In addition, Dr. Garry is on Dr. Esther Speer's (Department of Pediatrics) NIH K08: "Characterizing activity of the candidate sepsis therapeutic pentoxifylline alone and in combination with anti-infective and anti-inflammatory agents on bacteria-induced neonatal inflammation" as a member of her Advisory Committee. Dr. Garry was a coauthor on two papers: "Vertical transmission of Zika virus (ZIKV) in early pregnancy: two cases, two different courses" with Dr. Kimberly Herrera, and Dr. James Bernasko and "In Reply" a letter in Obstetrics & Gynecology (The Green Journal). The Journal of Reproductive Medicine has accepted his manuscript "Gestational diabetes insipidus: From presentation to resolution" with coauthors Dr. Malini Persad (MFM Fellow), Dr. Jennie Ou (Ob/Gyn Resident) and Dr. J. Gerald Quirk. Dr. Garry was also a coauthor on two ACOG posters: "Sign by the X in between contractions: readdressing informed consent in the obstetric patient" with Dr. Jenny Zhang (Ob/Gyn Resident), Dr. Malini Persad, Natalie Crnosija (Research Division), and Dr. Beth Garduno (General Gynecology & Obstetrics), and "Use of vacuum extraction during cesarean delivery: Is it safe?" with Dr. Persad, Dr. Jacky Nunziato (Ob/Gyn Resident), Dr. Sevan Vahanian (MFM Fellow) Dr. Michael Demishev and Dr. J. Gerald Quirk.



### Kimberly Herrera, MD

Dr. Kimberly Herrera was selected to be a participant in the National Hispanic Health Foundation PCORI Hispanic Patient-Centered Health Research Mentorship Program for 2016-2017. Through this she participated in quarterly webinars and went to the annual meeting for National Hispanic Medical Association, which enhanced her skills to be better able to participate in research methods on Hispanic populations. Dr. Herrera has three ongoing research projects: a prospective clinical study, a case controlled study and a retrospective cohort study. The prospective study,

## Maternal Fetal Medicine

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with Dr. Lisa Pastore (Research Division), is a mixed methods/survey project looking at decision-making processes in women who are undergoing CVS and amniocentesis. The case controlled study, with Dr. Ayisha Buckley (Ob/Gyn Resident) and Dr. Diana Garretto is "Does a Cesarean Section in the 2nd stage of labor confer an increased risk of cervical insufficiency in the subsequent pregnancy?" "Predictors of Metformin Failure in the Treatment of Gestational Diabetes" is the retrospective cohort, in collaboration with Dr. Jennie Ou (Ob/Gyn Resident: RRD project), Dr. Malini Persad, Dr. James Bernasko and Dr. J. Gerald Quirk. Although additional data collection is underway, this work has already been presented at the ACOG District II meeting and the American Diabetes Association's 77th Scientific Sessions. Dr. Herrera is also in the process of writing many papers. Her fellowship work "Does the 75gm Glucose Tolerance Test Increase the Prevalence of Gestational Diabetes?" is about to be submitted and she is completing two case studies. These are: "Raine Syndrome: A case report" with Dr. Kathryn Mince (Ob/Gyn Resident) and Dr. Malini Persad, and "Molar Pregnancy Presenting as Nephrotic Syndrome: A Case Report" with Dr. Odette Taha (Ob/Gyn Resident), Dr. Cheryl Dinglas (MFM Fellow), and Frank Papa (medical student). Dr. Herrera had two first-author papers published the year. These were: "Utility of Maternal Serum Analyte Screening in the Era of Cell-free Fetal DNA" with Dr. James Bernasko, and "Vertical transmission of Zika virus (ZIKV) in early pregnancy: two cases, two different courses" with Dr. Bernasko and Dr. David Garry. In addition, she coauthored an SMFM poster: "Can Weekly Vitamin D dosing adequately treat Vitamin D deficiency in pregnancy?"



### J. Gerald Quirk, MD, PhD

Dr. J. Gerald Quirk's collaboration with Dr. Petar M. Djurić (Department of Electrical and Computer Engineering) on new approaches in fetal heart rate monitoring continues. This year they have added Dr. I.V. Ramakrishnan (Department of Computer Science, School of Engineering, SBU) to the team. Together, these colleagues have begun the development and construction of a database to incorporate all antenatal data in a format usable for research. Together they have submitted two NIH grant applications. Their work this year has resulted in one presentation and two papers. A talk, "Fetal heart rate classification by non-parametric Bayesian methods," was given at the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) in New Orleans, and both the talk and "Recovery of Missing Samples in Fetal Heart Rate Recordings with Gaussian Processes" were published. Dr. Quirk was also a coauthor on three additional posters and one paper: "Predictors of Metformin Failure in the Treatment of Gestational Diabetes," "Characteristics associated with metformin failure among women with gestational diabetes," "Use of vacuum extraction during cesarean delivery: Is it safe?" and "Gestational diabetes insipidus: From presentation to resolution," which was accepted by the Journal of Reproductive Medicine. In addition to his NIH R21 grant, Dr. Quirk had two funded clinical trials during the past year. He is also the Director of the joint Stony Brook/Winthrop University Hospital Maternal Fetal Medicine Fellows program

## Maternal Fetal Medicine Fellows



### Malini Persad, MD

Dr. Malini Persad has been very active this year, as a key participant on eight studies. These included one randomized control trial (RCT), two prospective clinical studies, and five retrospective studies. The RCT, "A Randomized Control Trial of Vitamin D Prophylaxis in the Prevention of Hypertensive Disorders of Pregnancy" is underway with PI Dr. Diana Garretto (Maternal Fetal Medicine). The two prospective clinical studies are "AMNIOPAP: A Non-invasive Alternative to Amniocentesis and Chorionic Villus Sampling" with PI Dr. James Stelling (Reproductive Endocrinology) and "Effects of Progesterone on Biochemical Markers in Pregnancy" with Dr. Michael Demishev (Maternal Fetal Medicine). Three of the retrospective studies are ongoing: "Non-Obstetrical Surgeries in Pregnancy: A Retrospective Review of Patient Encounter and Outcomes" with Dr. J. Gerald Quirk (Maternal Fetal Medicine), "Female Sterilization among High Risk Pregnancies: A Retrospective Analysis of Patient Characteristics, Mode, and Barriers" also with Dr. Quirk and "Risk Factors for Failure of Metformin Use in Diabetes in Pregnancy" with Dr. Kimberly Herrera (Maternal Fetal Medicine). The last two: "Vacuum Assisted Cesarean Delivery: A Retrospective Review of Maternal and Perinatal Characteristics" with Dr. Michael Demishev (Maternal Fetal Medicine) and "Intrapartum Risk Factors Associated with Early-Onset Neonatal Sepsis" with Dr. Joseph Chappelle (Community Physician) are completed, with manuscripts in preparation. Dr. Persad has also been actively publishing and presenting. She is first author on a manuscript accepted by the Journal of Reproductive Medicine: "Gestational diabetes insipidus: From presentation to resolution." She is also first author on two posters: "Use of vacuum extraction during cesarean delivery: Is it safe?" at ACOG and "Is second trimester placental marginal cord insertion associated with adverse perinatal outcomes?" at the 89th Perinatal & Development Medicine Symposium. Dr. Persad coauthored four additional posters and one oral presentation: "Timing of maternal fever to delivery associates with histologic chorioamnionitis," "Neonatal CRP is predictive of histologically confirmed chorioamnionitis," "Characteristics associated with metformin failure among women with gestational diabetes," "Sign by the X in between contractions: readdressing informed consent in the obstetric patient" and (oral presentation): "Predictors of Metformin Failure in the Treatment of Gestational Diabetes."

### Cheryl Dinglas, DO

Dr. Cheryl Dinglas was awarded Poster of Distinction at the 10th Annual Winthrop Research Day for "Does an immediate postpartum HbA1C or 2 hour glucose tolerance test (GTT) in women with gestational diabetes identify those at risk for persistent glucose intolerance?" She has a strong interest in diabetes and became a Certified Diabetic Educator this past year. Dr. Dinglas is working on two projects: a prospective cohort study "Screening for Glucose Intolerance in the Immediate Postpartum Period among Women with gestational diabetes" and a project studying HbA1C values reflective of third trimester control and neonatal outcomes. In addition, she gave several fellow lectures this past year on Antenatal Corticosteroids, Rh Isoimmunization, Complications of Obstetric Neuraxial Anesthesia, and Chronic Kidney Disease and Pregnancy. Dr. Dinglas was also the first author and presented two posters at multiple venues this year: "Does an immediate postpartum GTT and HbA1C in women with gestational diabetes identify those at greatest risk for development of type 2 diabetes mellitus?" and "Does HbA1C correlate with Birth weight and adverse neonatal outcomes in gestational diabetics?"

## Midwifery

Our growing division of midwives epitomize collaborative research in a clinical environment, with an unparalleled track record in patient recruitment and has more than once helped to salvage studies by convincing many of their patients to participate. All of the practitioners (Dr. Christina Kocis, CNM, DNP (Director); Christina Arcieri-Sorelle, CNM; Kristen Clemens, CM; Evangelia Falkner, CNM; Dr. Heather Findletar-Hines, CNM, DNP; Maria Fisher, CNM, MSN, MPH, IBCLC; Amy Hall, CNM, IBCLC; Pamela Koch, CNM, IBCLC; Goldie McBride, CM; Joan Nastasi, CNM, NMS; Michelle Salz, CNM; Kathleen Sharrott, CNM; Amanda Sini, CNM; Ann Visser, CNM; and Rakiya Watts, CMN) actively participate in multiple projects and are key to the successful integration of research into clinical practice.

On the many projects that they support, the midwives participate in the full range of research activities: design, subject identification, patient recruitment, survey execution, biosample and data collection, analysis and presentation. During the past year, the Division of Midwifery has actively contributed to multiple projects, including: "Social Identities in Pregnancy: Effects on Maternal Health and Birth Outcomes" with Marci Lobel, PhD (Department of Psychology, School of Arts & Sciences, SBU); "Adapting a Comprehensive Mind-Body Group Intervention for Pregnant Women" with Brittain Mahaffey, PhD (Department of Psychiatry); "EEG correlates of reward in pregnancy" with Greg Hajcak, PhD (Department of Psychology); "Pregnancy and Cadmium Study" with Jack Kovach, MD, (Department of Family, Population & Preventive Medicine); "The Effect of Peripartum Antibiotics on Vertical Transmission of the Maternal Microbiome" with Gretchen Mockler, MD (Department of Family, Population & Preventive Medicine); "Characterization of circulating miRNAs from placenta exosomes in women with normal weight vs. obese women of different ethnic groups" with Maricedes Acosta-Martinez, PhD (Department of Physiology and Biophysics); "Mother-Infant Cognition and Attachment (MICA) Project" with Kristin Bernard, PhD (Department of Psychology, School of Arts & Sciences, SBU); and "Clinical Evaluation of the PartoSure™ Test" an industry sponsored clinical study with J. Gerald Quirk, MD, PhD (Maternal Fetal Medicine).

The Division's goals of communication and education are further reflected in their own specialized webpage (<http://medicine.stonybrookmedicine.edu/midwives>) and Facebook page. The Midwifery Division's expertise in communication and education makes them well-suited as the critical link between patients and our research efforts.

In addition to their group participation, individual members of the Division had their own achievements:

## Midwifery



### Christina Kocis, CNM, DNP

Dr. Christina Kocis had multiple publications this year. In addition to authoring the Human Resources chapter in the 4th edition of *The Administrative Manual for Midwifery Practices*, she was coauthor with Dr. David Baker (Maternal Fetal Medicine) and Dr. Tatyana Peresleni on "Inflammatory Markers in Vestibulodynia". She was also coauthor (representing the Division) on two publications that resulted from collaboration with Dr. Marci Lobel and her graduate students: Melissa Auerbach and Jennifer Nicoloro-SantaBarbara. Dr. Kocis was also a coinvestigator with Dr. David Garry (Maternal Fetal Medicine) on two NIH grant submissions: "Maternal Brain Social Emotion Regulation in Early Postpartum" with PI Dr. James Swain (Department of Psychiatry) and "Defining the circulating exosomal miRNA expression in association with gestational weight gain (GWG)" with PI Dr. Maricedes Acosta (Department of Physiology and Biophysics).



### Heather Findletar-Hines, CNM, DNP

Dr. Heather Findletar-Hines and Dr. Diana Garretto (Maternal Fetal Medicine) continued to collaborate on "Preventing the Primary Cesarean," an ACNM (American College of Nurse-Midwives) QI project to decrease cesareans in nulliparous, term, singleton and vertex presentation women. In addition, Dr. Findletar-Hines is the Interim Director for the Advanced Practice Nursing Program (MS) in Nurse Midwifery at Stony Brook University School of Nursing.



### Pamela Koch, CNM

Pam Koch collaborated with Elizabeth Roemer (Research Division) and Dr. Josephine Connolly-Schoonen (Nutrition Division, Department of Family Population and Preventive Medicine) on the submission of an application to the New York State Department of Health for their "Pediatric Obesity Prevention: Creating Breastfeeding Friendly Communities" program.



Some of our wonderful current and former midwives: **Front, L to R:** Goldie McBride, Ann Visser, Amanda Sini, Jessica Hilsenroth, Eva Falkner **Rear, L to R:** Michelle Salz, Kristen Clemens, Pam Koch, Heather Findletar, Susan Altman, Maria Fisher, Chris Kocis

## Gynecologic Oncology



### Marlo Dombroff, RPAC

Marlo Dombroff began a new project: "Treatment Related Cognitive Dysfunction in Endometrial Cancer," a long-term clinical study examining mental function and dysfunction in patients diagnosed with endometrial cancer. In addition, she was coauthor with Dr. Michael Pearl (Gynecologic Oncology) and Dr. Wen-Tien Chen (Research Division) on "CTC drug resistance (CDR) testing ex vivo for evaluation of available therapies to treat patients with epithelial ovarian cancer."



### Melissa Henretta, MD, MPH

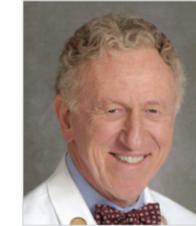
Dr. Melissa Henretta was an active mentor to three residents: Dr. Jessica Parker, Dr. Andre Plair and Dr. Anya Kutsenok. This resulted in two posters and one publication. Dr. Parker (with coauthors Dr. Henretta, Dr. Todd Griffin (General Obstetrics & Gynecology), Dr. Andre Plair and Natalie Crnosija (Research Division) presented "The revolving door: Ovarian cancer readmissions in New York State at SGO (Society of Gynecologic Oncology). Dr. Plair (with coauthors Dr. Henretta, Dr. Todd Griffin (General Obstetrics & Gynecology) and Dr. Michael Pearl) presented "The Revolving Door? New York State Hospital Readmission Following Hysterectomy for Benign Conditions" at ACOG (The American Congress of Obstetricians and Gynecologists). This work was later published in Obstetrics & Gynecology.



### Michael Pearl, MD

Dr. Michael Pearl serves as both the Vice Chair for Research and Faculty Development and the Director of the Division of Gynecologic Oncology. He is also the Principal Investigator for numerous Stony Brook clinical trials through the gynecological oncology portion of the NRG Oncology Cooperative Group (GOG). This resulted in 10 co-authorships with the GOG, including seven published and two submitted papers (see Department Publications). Dr. Pearl's personal research efforts, in collaboration with Dr. Wen-Tien Chen (Research Division), have yielded two research contracts from Vitatex: "Blood Assays to Analyze Tumor Heterogeneity and Drug Resistance" and "Vita-Cap Tube to Preserve Circulating Tumor Cells in Blood (Phase I&II)." Together Dr. Pearl and Dr. Chen have published "Vita-Assay™ Method of Enrichment and Identification of Circulating Cancer Cells/Circulating Tumor Cells (CTCs)" and, along with coauthor Marlo Dombroff), "iCTC drug resistance (CDR) testing ex vivo for evaluation of available therapies to treat patients with epithelial ovarian cancer." They have a third manuscript "Mosaic phenotype of tumor progenitor cells: the canonical hypothesis of metastatic progression" in review with Nature Cell Biology. Dr. Pearl is also a coauthor on both Dr. Andre Plair's (Ob/Gyn Resident) poster and publication. Despite his heavy clinical schedule, Dr. Pearl also collaborated on a grant application with Dr. Christine DeLorenzo (Department of Psychiatry) and submitted a research contract application to Vitatex. In addition to the two Vitatex contracts mentioned above, Dr. Pearl has an award from the Ovarian Cancer Research Fund "Woman to Woman at Stony Brook University Cancer Center" and extensive clinical trial funding through the NRG.

## Reproductive Endocrinology



### Richard Bronson, MD

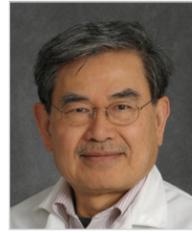
Dr. Richard Bronson supervises the annual Resident and Fellows Research Day. His own research, on male fertility, has produced a manuscript: "Detection of candidate nectin gene mutations in infertile men with severe teratospermia" with coauthors Dr. Dmitri Gnatenko (Department of Medicine, Genomics Core) and John Schwedes (DNA Microarray Facility). Dr. Bronson has three additional publications: "Role of spermatozoa in the etiology of miscarriage," "Reliability of sperm morphology in predicting function," and "Fertility Preservation in Women with Turner Syndrome: A Comprehensive Review and Practical Guidelines." He edited The Male Role in Pregnancy Loss and Embryo Implantation Failure and had two poems published in Medical Humanities: "On Viewing a Portrait by Otto Dix" and "San Antonio Summer '64."



### James Stelling, MD

Dr. James Stelling, a practitioner and the Research Director with Reproductive Medical Specialists of NY, is a frequent mentor for our residents and a close, regular collaborator with Dr. Lisa Pastore (Research Division). Together, they are exploring a variety of subjects relevant to female infertility, including: continued work on FMR1 and ovarian insufficiency, other aspects of ovarian reserve and genetics, and the emotional and social impact of the stress involved in pre-implantation genetic testing. This year he was coauthor on 3 publications: "The Impact of Genetic Carrier Testing in Reproductive Decision-Making: FMR1 Testing in Women with Diminished Ovarian Reserve," "Review of Patient Decision-Making Factors and Attitudes Regarding Preimplantation Genetic Testing," and "Psychological and emotional concomitants of infertility diagnosis in women with diminished ovarian reserve and anatomical cause of infertility." Dr. Stelling was coinvestigator on three NIH grant applications with Dr. Lisa Pastore as PI. These were: "Investigating a Model of Decisional Distress and Decisional Uncertainty among Individuals Considering Preimplantation Genetic Screening/Diagnosis (PGS/PGD)" with co-investigators Dr. Marci Lobel (Department of Psychology, School of Arts and Sciences, SBU) and Dr. Lisa Rubin (Department of Psychology, New School for Social Research), "Genetic Risk Factors for Diminished Ovarian Reserve in Young Women," and "Preimplantation Genetic Testing: Ethical, Social, and Financial Influences on Patient Distress and Uncertainty," again with co-investigators Drs. Lobel and Rubin.

## Research



### Wen-Tien Chen, PhD

Dr. Wen-Tien Chen's publications this year included: "Method of Enrichment and Identification of Circulating Cancer Cells/Circulating Tumor Cells (CTCs)" with Dr. Michael Pearl (Gynecologic Oncology), and "iCTC drug resistance (CDR) Testing ex vivo for evaluation of available therapies to treat patients with epithelial ovarian cancer" with Dr. Pearl and Marlo Dombroff, PA-C (Gynecologic Oncology). He also has a manuscript with Dr. Pearl in review with Nature Cell Biology: "Mosaic phenotype of tumor progenitor cells: the canonical hypothesis of metastatic progression."



### Lisa Pastore, PhD

Dr. Lisa Pastore's multiple research projects all focus on some aspect of infertility. The FRAXELLE Study, comprised of four sub-studies, looks at several questions affecting women suffering from Diminished Ovarian Reserve (DOR). Sub-study one, now complete, asked: among a *US-based control group of women with normal ages at menopause, no history of infertility, and at least one pregnancy, what is the CGG repeat length distribution of FMR1 gene by heritage and by the individual allele?* The results have been published in Reproductive Sciences as "FMR1 CGG Repeat Length Variation by Race-Ethnicity in Females with Normal Fertility" with collaborators Dr. Lawrence Silverman (University of Virginia), Dr. Ani Manichaikul (University of Virginia), Xin-Qun Wang (University of Virginia) and Dr. Joel Finkelstein (Harvard University /Massachusetts General Hospital). Sub-study two, also complete, asked: *among women who are infertile due to early ovarian aging (DOR) compared to a control group (women with normal ages at menopause, no history of infertility, and at least 1 pregnancy), is there is a greater frequency of 35-44, 45-54 and >55 CGG repeats in the FMR1 gene?* This study, with collaborators Dr. Steven Young (University of North Carolina at Chapel Hill), Dr. Ani Manichaikul (University of Virginia), Dr. Valerie Baker (Stanford University), Xin-Qun Wang (University of Virginia), Dr. Joel Finkelstein (Harvard University/Massachusetts General Hospital) has also been published as: "Distribution of the FMR1 Gene In Females By Race-Ethnicity: Women With Diminished Ovarian Reserve Versus Women With Normal Fertility (SWAN Study)" in Fertility and Sterility. Sub-study three examined how women diagnosed with DOR approach FMR1 genetic carrier testing in their reproductive decision-making. This study has been published in the Journal of Endocrinology as "The impact of genetic carrier testing in reproductive decision-making: FMR1 testing in women with diminished ovarian reserve" with collaborators Elizabeth Walker (former University of Virginia undergraduate, now in medical school at Emory University), Dr. Myra Clark (Eastern Tennessee State University), Dr. James Stelling (Division of Reproductive Endocrinology) and Dr. Michael Timko (University of Virginia). Sub-study number four is still underway, looking at the magnitude and predictors of emotional reactions to an infertility diagnosis in two groups of women. Dr. Pastore's collaborators on this study are: Jennifer Nicoloso-Santa Barbara (graduate student in SBU Psychology Department), Dr. Marci Lobel (Psychology Department, SBU),

## Research

Dr. Silvina Bocca (Jones Center for Reproductive Medicine) and Dr. James Stelling (Division of Reproductive Endocrinology). The manuscript for this work: "Psychological and emotional concomitants of infertility diagnosis in women with diminished ovarian reserve and anatomical cause of infertility", was recently accepted by Fertility & Sterility.

Dr. Pastore's second project "Genetic Associations with Diminished Ovarian Reserve" (DOR SEQ Study) evolved from the FRAXELLE Study. A collaboration with Dr. James Stelling (Division of Reproductive Endocrinology), Dr. Merlin Butler (Kansas University), Dr. Ann Manzardo (Kansas University), Dr. James Segars (Johns Hopkins University) and Dr. Avinash Abhyankar (NY Genome Center), this study investigates the potential genetic causes of DOR, utilizing Next Generation sequencing of the whole exome and high resolution microarrays to identify genetic clusters and biological pathways that associate with DOR in women. This project also had assistance in the summer of 2016 from Caroline Shank, a rising second-year medical student from SUNY Upstate Medical University. An NIH R01 grant application was resubmitted for this work.

Dr. Pastore's third project "Preimplantation Genetic Testing Decision-Making" is being done with Dr. James Stelling (Division of Reproductive Endocrinology), Dr. Marci Lobel (Psychology Department, SBU) Dr. Lisa Rubin (The New School) and Margaux Genoff (graduate student at The New School) and also included Caroline Shank (SUNY Upstate Medical University). This study is investigating ethical considerations, distress, financial concerns and other factors underlying the decision-making process of patients about whether to undergo preimplantation genetic testing (PGT). This project has an initial manuscript in preparation and has yielded two posters: "Systematic Review of Patient Decision-Making Factors and Attitudes Regarding Preimplantation Genetic Testing" and "Preimplantation Genetic Testing Patient Decision-Making: New Tools to Assess Decisional Distress and Decisional Uncertainty" presented by Dr. Pastore at the 2017 ELSI World Congress in June in Connecticut. An NIH R21 grant application was resubmitted for this work and a Stony Brook Medicine TRO grant application was also submitted. In addition, a related project was generated: a prospective study, with Dr. Kimberly Herrera (Maternal Fetal Medicine Division), is a mixed methods/survey project looking at decision-making processes in women who are undergoing CVS and amniocentesis.

In addition to her research, Dr. Pastore is very involved in mentoring and resident education. She is the official mentor for two of our junior faculty, Dr. Diana Garretto and Dr. Kim Herrera (both Maternal Fetal Medicine Division). In this capacity, she is guiding their evolution as active researchers as well as acting as a professional development resource. This year, as part of her resident education efforts, Dr. Pastore presented "High Efficiency: Conducting Research While Seeing Patients" at one of the department's monthly research meetings and "Turning a Poster or Presentation into a Publication" during the residents' education time. These presentations were combined as "Work Smarter Not Harder: Tips For Junior Academic Epidemiologists And Other Junior Faculty Researchers," published as a commentary in Medical Research Archives.

## Research Collaborators

### Stony Brook Medicine

**Maricedes Acosta, PhD**, Assistant Professor, Department of Physiology and Biophysics (Midwifery Division, Dr. David Garry, Dr. James Bernasko)

**Josephine Connolly-Schoonen, PhD, RD**, Clinical Associate Professor, Nutrition Division, Department of Family Population and Preventive Medicine (Midwifery Division)

**Helen Fox, PhD**, Assistant Professor: Department of Psychiatry (Dr. David Garry)

**Dmitri Gnatenko, PhD**, Scientific Director: Genomics Core, Department of Medicine (Dr. Richard Bronson, Dr. Lisa Pastore)

**John Kovach, MD**, Professor, Department of Family, Population & Preventive Medicine (Dr. Todd Griffin, Dr. James Bernasko)

**Yupo Ma, MD, PhD**, Professor, Department of Pathology (Dr. Cecilia Avila)

**Brittain Mahaffey, PhD**, Post-Doctoral Fellow, Department of Psychiatry (Midwifery Division, Dr. David Garry)

**Gretchen Mockler, MD**, Clinical Assistant Professor, Department of Family, Population & Preventive Medicine (Midwifery Division)

**Sharon Nachman, MD**, Professor: Department of Pediatrics, Division Chief, Infectious Disease (Dr. Cecilia Avila)

**John Schwedes**, Core Manager, DNA Microarray Facility (Dr. Richard Bronson, Dr. Lisa Pastore)

**Mark Sedler, MD, PhD**, Associate Dean for Global Medical Education, Professor, Department of Psychiatry (Dr. Christina Pardo-Maxis)

**Esther Speer, MD**, Clinical Assistant Professor, Department of Pediatrics, Division of Neonatology (Dr. David Garry)

**Kathleen Stergiopoulos, MD, PhD**, Professor: Department of Medicine, Division of Cardiology (Dr. Cecilia Avila)

**James Swain, MD, PhD**, Assistant Professor, Department of Psychiatry (Dr. David Garry)

## Research Collaborators

### Stony Brook University

#### SCHOOL OF ARTS & SCIENCES

**Kristin Bernard, PhD**, Assistant Professor, Department of Psychology (Midwifery Division)

**Greg Hajcak, PhD**, Professor, Department of Psychology (Midwifery Division)

**Marci Lobel, PhD**, Professor, Department of Psychology (Midwifery Division, Dr. David Garry, Dr. Lisa Pastore)

#### SCHOOL OF ENGINEERING

**Petar Djuric, PhD**, Distinguished Professor and Chair, Department of Electrical Engineering (Dr. J. Gerald Quirk)

**I.V. Ramakrishnan, PhD**, Professor: Department of Computer Science, Associate Dean for Research, School of Engineering (Dr. J. Gerald Quirk)

### External Collaborators

**Avinash Abhyankar, MD, PhD**, Manager, Clinical Informatics, New York Genome Center, New York, NY. (Dr. Lisa Pastore)

**Valerie Baker, MD**, Professor, Department of Obstetrics & Gynecology - Reproductive Endocrinology & Infertility, Stanford University, Palo Alto, CA (Dr. Lisa Pastore)

**Silvina Bocca, MD, PhD**, Associate Professor, Department of Obstetrics and Gynecology, Eastern Virginia Medical School, Jones Center for Reproductive Medicine, Norfolk, VA (Dr. Lisa Pastore)

**Merlin Butler, MD, PhD**, Professor: Departments of Psychiatry & Behavioral Sciences and Pediatrics, University of Kansas School of Medicine, Kansas City, KS (Dr. Lisa Pastore)

**Joseph Chappelle, MD**, Community Physician, Setauket, NY (Maternal Fetal Medicine Fellows & Ob/Gyn Residents)

**Myra Clark, PhD, MSN, FNP, RN**, Associate Dean, Graduate Programs, Associate Professor, College of Nursing, Eastern Tennessee State University, Johnson City, TN (Dr. Lisa Pastore)

**Joel Finkelstein, MD**, Professor of Medicine, Harvard University and Massachusetts General Hospital, Boston, MA (Dr. Lisa Pastore)

**Micah J. Hill, DO**, Director, Assisted Reproduction Technologies, Walter Reed National Military Medical Center, Bethesda, MD (Dr. Lisa Pastore)

**Ani Manichaikul, PhD**, Assistant Professor, Public Health Sciences, Center for Public Health Genomics, University of Virginia School of Medicine, Charlottesville, VA (Dr. Lisa Pastore)

**Ann Manzardo, PhD**, Associate Professor, Department of Psychiatry and Behavioral Sciences, University of Kansas School of Medicine, Kansas City, KS (Dr. Lisa Pastore)

**Lisa Rosenthal, PhD**, Assistant Professor, Dyson College of Arts & Sciences, Pace University, Dyson College of Arts & Sciences, New York, NY (Division of Midwifery)

## Research Collaborators

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**Lisa Rubin, PhD**, Associate Professor, Department of Psychology, Eugene Lang College of Liberal Arts, The New School, New York, NY (Dr. Lisa Pastore)

**James Segars, MD**, Professor, Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, MD (Dr. Lisa Pastore)

**Lawrence Silverman, PhD**, Director, DNA Laboratory, Professor Emeritus of Pathology, University of Virginia School of Medicine, Charlottesville, VA (Dr. Lisa Pastore)

**Michael Timko, PhD**, Professor, Department of Biology & Director, Echolls Scholars Program University of Virginia College and Graduate School of Arts & Sciences, Charlottesville, VA (Dr. Lisa Pastore)

**Steven Young, MD, PhD**, Associate Professor, Department of Obstetrics & Gynecology, University of North Carolina, Chapel Hill, NC, (Dr. Lisa Pastore)

**Elizabeth Walker**, Medical Student, Emory University School of Medicine, Atlanta, GA. (Dr. Lisa Pastore)

**Xin-Qun Wang, MS**, Senior Biostatistician, Public Health Sciences, University of Virginia School of Medicine, Charlottesville, VA (Dr. Lisa Pastore)



Dr. Joseph Chappelle (Community Collaborator) and Dr. Diana Garretto (Maternal Fetal Medicine) discussing a research project with Dr. Hannah Valdes (Resident) at the 2017 Resident Research Day.

## Awards, Publications and Presentations

### Awards

**Dr. Jenny Zhang** received the 2016 The James N. Drosch, M.D. Memorial Award for minimally invasive surgery, she attended the AAGL 45th Annual Global Congress, held November 14-18, 2016.

**Dr. David Baker** was appointed as an Honorary Research Fellow at The New York Botanical Garden. Leon Yang received a 2016 Undergraduate Summer Fellowship from the Endocrine Society.

**Cheryl Dinglas** was awarded Poster of Distinction at the 10th Annual Winthrop Research Day for: "Does an immediate postpartum HbA1C or 2 hour glucose tolerance test (GTT) in women with gestational diabetes identify those at risk for persistent glucose intolerance?"

### Publications

**Baker DA, Peresleni T, Kocis C.** Inflammatory Markers in Vestibulodynia. *Annals of Infectious Disease and Epidemiology*. 2016 Sept; 1(1):1-6. article 1002.

**Bernasko J.** Gestational Diabetes Screening: The International Association of the Diabetes and Pregnancy Study Groups Compared With Carpenter-Coustan Screening. *Obstet Gynecol*. 2016 May; 127(5):964-965. DOI:10.1097/AOG.0000000000001413. PMID: 27101111.

**Bronson R, Mikhailik A, Schwedes J, Gnatenko D, Hatchwell E.** Detection of candidate nectin gene mutations in infertile men with severe teratospermia. *J Assist Reprod Genet*. 2017 Jul. DOI: 10.1007/s10815-017-0985-4. [Epub ahead of print] PMID: 28689229.

**Bronson R.** On Viewing a Portrait by Otto Dix. *Med Humanit*. 2017 Jun; 43(2):e18. DOI: 10.1136/medhum-2016-011160. PMID: 28119374.

**Bronson R.** San Antonio Summer '64. *Med Humanit*. 2017 Mar; 43(1):e6. DOI: 10.1136/medhum-2016-011096. PMID: 27681472.

**Bronson R.** Role of spermatozoa in the etiology of miscarriage. *Fertil Steril*. 2016 Jan; 105(1):47-8. DOI: 10.1016/j.fertnstert.2015.10.016. PMID: 26515379.

Oktay K, Bedoschi G, Berkowitz K, **Bronson R**, Kashani B, McGovern P, Pal L, Quinn G, Rubin K. Fertility Preservation in Women with Turner Syndrome: A Comprehensive Review and Practical Guidelines. *J Pediatr Adolesc Gynecol*. 2016 Oct; 29(5):409-416. DOI: 10.1016/j.jpog.2015.10.011. PMID: PMC5015771.

**Bronson R.** Reliability of sperm morphology in predicting function *Hum Reprod* 2016 Jul; 31(7): 1629-1630. DOI: 10.1093/humrep/dew118. PMID: 27178170.

Sheen JJ, Reimers L, Govindappagari S, Ngai IM, **Garretto D**, Donepudi R, Tropper P, Goffman D, Dayal AK, Bernstein PS. A SWIFT Method for Handing Off Obstetrical Patients on the Labor Floor. *J Patient Saf*. 2017 Jul; [Epub ahead of print] DOI: 10.1097/PTS.0000000000000377. PMID: 28691973.

**Garretto D**, Lin B B, Syn H L, Judge N, Beckerman K, Atallah F, Bernstein PS. Obesity May Be Protective against Severe Perineal Lacerations. *Journal of Obesity*. 2016; 9376592. <http://doi.org/10.1155/2016/9376592> PMID: PMC4871967.

## Awards, Publications and Presentations

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**Garretto D**, Kim YK, Pimentel VM, Smith HA, Tropper P, Neal-Perry G. Vitamin A Status in Breast Milk and Serum After Bariatric Surgery in an Urban Population. *Obstetrics & Gynecology*. 2016 May; 127:90S.

**Garry DJ**, Ngai I, Bernstein PS, Judge NE. In Reply. (in Letters). *Obstet Gynecol*. 2017. Apr; 129(4):751 doi:10.1097/AOG.0000000000001957 PMID: 28333799.

**Herrera K**, Lewis D, Foroutan J, Bimson B, Bernasko J, Tambini-King L. Utility of Maternal Serum Analyte Screening in the Era of Cell-free Fetal DNA. *J Gynec Obstet*. 2017; 1(1):006.

**Herrera K, Bernasko J, Garry D**, Vahanian S, Kaplan S. (2016) Vertical transmission of Zika virus (ZIKV) in early pregnancy: two cases, two different courses. *Case Rep. Perinat. Med*. 2016; 5(2): 131–133. DOI: 10.1515/crpm-2016-0027.

Auerbach M, Nicoloso J, Rosenthal L, **Kocis C**, Weglarz E, Busso C, Lobel M. Psychometric properties of the Prenatal Health Behavior Scale in mid- and late pregnancy *J Psychosom Obstet Gynaecol*. 2017 Jun; 38(2):143-151. DOI: 10.1080/0167482X.2017.1285899. PMID: 28376698.

Nicoloso-SantaBarbara J, Rosenthal L, Auerbach MV, **Kocis C**, Busso C, Lobel M. Patient-provider communication, maternal anxiety, and self-care in pregnancy. *Soc Sci Med*. 2017 Oct; 190:133-140. DOI: 10.1016/j.socscimed.2017.08.011. PMID: 28863336.

**Pastore L**, Young S, Manichaikul A, Baker V, Wang X, Finkelstein J. Distribution of the FMR1 Gene In Females By Race-Ethnicity: Women With Diminished Ovarian Reserve Versus Women With Normal Fertility (SWAN Study). *Fertil Steril*. 2017; 107(1):205-211. DOI: 10.1016/j.fertnstert.2016.09.032. PMID: PMC5261832.

**Pastore LM**, Manichaikul A, Wang XQ, Finkelstein JS. FMR1 CGG Repeats: Reference Levels and Race-Ethnic Variation in Women With Normal Fertility (Study of Women's Health Across the Nation). *Reprod Sci*. 2016; 23(9):1225-1233. DOI: 10.1177/1933719116632927.

Walker ER, Clark ML, **Stelling J**, Timko MP, **Pastore LM**. The Impact of Genetic Carrier Testing in Reproductive Decision-Making: FMR1 Testing in Women with Diminished Ovarian Reserve. *J Endocrinol Diabetes Obes*. 2017; 5(1): 1098.

**Pastore LM**. Work Smarter Not Harder: Tips For Junior Academic Epidemiologists And Other Junior Faculty Researchers. *Medical Research Archives*. 2017; 5(1). <http://www.journals.ke-i.org/index.php/mra/article/view/932> ISSN 2375-1924.

**Pearl ML**, Dong H, Zhao Q, Tulley S, **Dombroff MK**, **Chen WT**. iCTC drug resistance (CDR) Testing ex vivo for evaluation of available therapies to treat patients with epithelial ovarian cancer. *Gynecol Oncol*. 2017 Aug; DOI: 10.1016/j.jygyno.2017.08.018. [Epub ahead of print]

Creasman WT, Ali S, Mutch DG, Zaino RJ, Powell MA, Mannel RS, Backes FJ, DiSilvestro PA, Argenta PA, **Pearl ML**, Lele SB, Guntupalli SR, Waggoner S, Spirtos N, Boggess JF, Edwards RP, Filiaci VL, Miller DS. Surgical-pathological findings in type 1 and 2 endometrial cancer: An NRG Oncology/Gynecologic Oncology Group study on GOG-210 protocol. *Gynecol Oncol*. 2017 June; 145(3):519-525. DOI: 10.1016/j.jygyno.2017.03.017. PMID 28392124.

## Awards, Publications and Presentations

Brasky TM, Felix AS, Cohn DE, McMeekin DS, Mutch DG, Creasman WT, Thaker PH, Walker JL, Moore RG, Lele SB, Guntupalli SR, Downs LS, Nagel CI, Boggess JF, **Pearl ML**, Ioffe OB, Park KJ, Ali S, Brinton LA. Nonsteroidal Anti-inflammatory Drugs and Endometrial Carcinoma Mortality and Recurrence. *J Natl Cancer Inst*. 2017 Mar 1; 109(3):1-10. DOI: 10.1093/jnci/djw251. PMID: PMC5161320.

Jeske YW, Ali S, Byron SA, Gao F, Mannel RS, Ghebre RG, DiSilvestro PA, Lele SB, **Pearl ML**, Schmidt AP, Lankes HA, Ramirez NC, Rasty G, Powell M, Goodfellow PJ, Pollock PM. FGFR2 mutations are associated with poor outcomes in endometrioid endometrial cancer: An NRG Oncology/Gynecologic Oncology Group study. *Gynecol Oncol*. 2017 May; 145(2):366-373. DOI: 10.1016/j.jygyno.2017.02.031. PMID: PMC5433848.

Winder AD, Maniar KP, Wei JJ, Liu D, Scholtens DM, Lurain JR, Schink JC, Buttin BM, Filiaci VL, Lankes HA, Ramirez NC, Park K, Singh M, Lieberman RW, Mannel RS, Powell MA, Backes FJ, Mathews CA, **Pearl ML**, Secord AA, Peace DJ, Mutch DG, Creasman WT, Kim JJ. Synuclein-γ in uterine serous carcinoma impacts survival: An NRG Oncology/Gynecologic Oncology Group study. *Cancer*. 2017 Apr 1; 123(7):1144-1155. DOI: 10.1002/cncr.30477. PMID: PMC5360512.

Fader AN, Java J, Tenney M, Ricci S, Gunderson CC, Temkin SM, Spirtos N, Kushnir CL, **Pearl ML**, Zivanovic O, Tewari KS, O'Malley D, Hartenbach EM, Hamilton CA, Gould NS, Mannel RS, Rodgers W, Walker JL. Impact of histology and surgical approach on survival among women with early-stage, high-grade uterine cancer: An NRG Oncology/Gynecologic Oncology Group ancillary analysis. *Gynecol Oncol*. 2016 Dec; 143(3):460-465. DOI: 10.1016/j.jygyno.2016.10.016. PMID: PMC5116702.

McMeekin DS, Trichter DL, Cohn DE, Mutch DG, Lankes HA, Geller MA, Powell MA, Backes FJ, Landrum LM, Zaino R, Broaddus RD, Ramirez N, Gao F, Ali S, Darcy KM, **Pearl ML**, DiSilvestro PA, Lele SB, Goodfellow PJ. Clinicopathologic Significance of Mismatch Repair Defects in Endometrial Cancer: An NRG Oncology/Gynecologic Oncology Group Study. *J Clin Oncol*. 2016 Sept; 34(25):3062-8. DOI: 10.1200/JCO.2016.67.8722. PMID: PMC5012715.

Tulley S, Zhao Q, Dong H, **Pearl ML**, **Chen WT**. Vita-Assay™ Method of Enrichment and Identification of Circulating Cancer Cells/Circulating Tumor Cells (CTCs). *Methods Mol Biol*. 2016; 1406:107-19. DOI: 10.1007/978-1-4939-3444-7\_9. PMID: 26820949.

Atri M, Zhang Z, Dehdashti F, Lee, SI, Marques H, Ali S, Koh WJ, Mannel RS, DiSilvestro P, King SA, **Pearl M**, Zhou X., Plante M, Moxley KM, Gold M. Utility of PET/CT to Evaluate Retroperitoneal Lymph Node Metastasis in High-Risk Endometrial Cancer: Results of ACRIN 6671/GOG 0233 Trial. *Radiology*. 2017 May; 283(2):450-459. DOI: 10.1148/radiol.2016160200. PMID: PMC5410939. P. Ou MD, Malini D, Persad MD MPH, J. Gerald Quirk MD PhD, Kimberly Herrera MD

Myers AP, Filiaci VL, Zhang Y, **Pearl M**, Behbakht K, Makker V, Hanjani P, Zweizig S, Burke JJ, Downey G, Leslie KK, Van Hummelen P, Birrer MJ, Fleming GF. Tumor mutational analysis of GOG248, a phase II study of temsirolimus or temsirolimus and alternating megestrol acetate and tamoxifen for advanced endometrial cancer (EC): An NRG Oncology/Gynecologic Oncology Group study. 2016 April; *Gynecol Oncol*. 141(1): 43-48. DOI: 10.1016/j.jygyno.2016.02.025. PMID: PMC5119517.

## Awards, Publications and Presentations

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**Plair A, Griffin T, Henretta M, Pearl M,** Yang J, Park, J. The Revolving Door? New York State Hospital Readmission Following Hysterectomy for Benign Conditions. 2017; Obstetrics & Gynecology. DOI: 10.1097/01.AOG.0000514908.83555.37

Yu K, **Quirk JG,** Djuric PM. Fetal heart rate classification by non-parametric Bayesian methods. In: 2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). IEEE; March 2017. Electronic ISSN: 2379-190X. INSPEC Accession Number: 16968239. DOI: 10.1109/ICASSP.2017.7952281.

Feng G, **Quirk JG** and Djuric PM. Recovery of Missing Samples in Fetal Heart Rate Recordings with Gaussian Processes. Proceedings 25th EUSIPCO. ISBN: 978-0-9928626-7-1 © EURASIP 2017. <http://www.eurasip.org/Proceedings/Eusipco/Eusipco2017/papers/1570347673.pdf>

### Submitted

**Crnosija, N., Baker, D.A., Roemer, E.J.** Associations between supplement information sources and menopausal women's consumption of herbal supplements. *Women & Health* (in review)

Genoff MC, Rubin LR, Lobel M, **Stelling J, Pastore LM.** Review of Patient Decision-Making Factors and Attitudes Regarding Preimplantation Genetic Testing. *Human Reproduction Update* (in review)

Nicoloro-SantaBarbara J, Lobel M, Bocca S, **Stelling J, Pastore LM.** Psychological and emotional concomitants of infertility diagnosis in women with diminished ovarian reserve and anatomical cause of infertility. *Fertility & Sterility* April 2017. Manuscript accepted.

**Persad MD, Wu X, Ou J, Quirk J, Garry D.** "Gestational diabetes insipidus: From presentation to resolution." *Journal of Reproductive Medicine*. Manuscript accepted.

**Pearl ML,** Dong H, Zhao Q, Tulley S, **Dombroff MK, Chen WT.** iCTC drug resistance (CDR) Testing ex vivo for evaluation of available therapies to treat patients with epithelial ovarian cancer. *Gynecol Oncol* (in review)

**Chen WT,** Tulley S, Dong H, **Zhao Q,** Cho L, Chen D, **Pearl ML.** Mosaic phenotype of tumor progenitor cells: the canonical hypothesis of metastatic progression. *Nature Cell Biology* (in review)

Devor E, Miecznikowski J, Schickling BM, Gozalez-Bosquet J, Lankes HA, Thaker P, Geller M, **Pearl ML,** Zweizig SL, Mannel RS, Brown A, Ramirez NC, Ioffe OB, Park KJ, Creasman WT, Birrer MJ, Mutch D, Leslie K. Dysregulation of miR-181c expression influences recurrence of endometrial endometrioid adenocarcinoma by modulating NOTCH2 expression: An NRG Oncology/GOG study. *Cancer Res* (in review)

Bishop EA, Java JJ, Moore KN, Spirtos NM, **Pearl ML,** Zivanovic O, Kushner DM, Backes F, Hamilton CA, Geller M, Hurteau J, Mathews C, Wenham RM, Ramirez PT, Zweizig S, Walker JL. Surgical outcomes among a geriatric population of endometrial cancer patients: An NRG Oncology/ Gynecologic Oncology Group ancillary data analysis of LAP2. *Obstet Gynecol* (in review)

## Awards, Publications and Presentations

### Book Chapters

Natali Aziz N, **Baker D A.** Cytomegalovirus, Herpes Simplex Virus, Adenovirus, Coxsackivirus, and Human Papillomavirus in Pregnancy. JAMES et al: High-Risk Pregnancy: Management Options on-line. 2017. Cambridge University Press, Cambridge, UK.

**Kocis, C.** Human Resources. In *The Administrative Manual for Midwifery Practices*. 4th Ed. Joan Slager, editor. American College of Nurse-Midwives. 2016. ISBN: 0914324063, 9780914324065.

The Male Role in Pregnancy Loss and Embryo Implantation Failure. Ed. **Bronson, R.** AEMB, 2015 volume 868. Springer. ISBN 978-3-319-18881-2

### Meeting Presentations

**DeMarco A, Young E, Lee D,** Chappelle J. Non-invasive Hemoglobin Monitoring: A Method of Measuring Blood Loss in Cesarean Delivery? Poster: ACOG. San Diego, CA. May 2017.

**Dinglas C,** Muscat J, Heo H, Islam I, Vintzileos A. Does an immediate postpartum GTT and HbA1C in women with gestational diabetes identify those at greatest risk for development of type 2 diabetes mellitus? Poster: SMFM. Las Vegas, NV, January 2017.

**Dinglas C,** Muscat J, Heo H, Islam I, Vintzileos A. Does an immediate postpartum HbA1C or 2 hour glucose tolerance test (GTT) in women with gestational diabetes identify those at risk for persistent glucose intolerance? Poster: 10th Annual Winthrop Research Day, April 2017.

**Dinglas C,** Muscat J, Heo H, Boryushkina V, Ng N, Islam S, Vintzileos A. Does HbA1C correlate with Birth weight and adverse neonatal outcomes in gestational diabetics? Poster: 10th Annual Winthrop Research Day, April 2017.

**Dinglas C,** Muscat J, Heo H, Boryushkina V, Ng N, Islam S, Vintzileos A. Does HbA1C correlate with Birth weight and adverse neonatal outcomes in gestational diabetics? Poster: ACOG. San Diego, CA. May 2017.

Bimson B, Brustman L, Al Ibraheemi, **Herrera K,** Rosenn B. Can Weekly Vitamin D dosing adequately treat Vitamin D deficiency in pregnancy? Poster: SMFM 37th Annual Meeting. Las Vegas, NV. January 2017.

**Nunziato JD, Persad MD,** Rios-Doria E, **Crnosija N,** Chappelle J. Timing of maternal fever to delivery associates with histologic chorioamnionitis. Poster: SMFM. Las Vegas, NV. January 2017.

**Nunziato JD, Persad MD,** Rios-Doria E, **Crnosija N,** Chappelle J. Neonatal CRP is predictive of histologically confirmed chorioamnionitis. Poster: SMFM. Las Vegas, NV. January 2017.

**Ou J, Persad M, Bernasko J, Quirk J, Herrera K.** Predictors of Metformin Failure in the Treatment of Gestational Diabetes. Oral & Poster: ACOG District II Upstate. Verona, NY. April 2017.

**Ou J., Persad M.D., Quirk J.G., Herrera K.** "Characteristics associated with metformin failure among women with gestational diabetes." Poster: American Diabetes Association's 77th Scientific Sessions. San Diego, CA. June 2017.

## Awards, Publications and Presentations

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**Parker J, Crnosija N, Plair A, Griffin T, Henretta MS.** The revolving door: Ovarian cancer readmissions in New York State. Poster: SGO National Harbor, MD. March 2017.

**Pastore LM.** High Efficiency: Conducting Research While Seeing Patients. Oral: OB/GYN Research Seminar, Stony Brook, NY. September 2016.

**Pastore LM.** Turning a Poster or Presentation into a Publication. Oral: OB/GYN Resident Education. April 2017.

**Pastore LM.** Systematic Review of Patient Decision-Making Factors and Attitudes Regarding Preimplantation Genetic Testing. Oral: Genomics and Society: Expanding the ELSI Universe; 4th ELSI Congress. Farmington, CT. June 2017.

**Persad MD, Nunziato JD, Vahanian S, Demishev M, Quirk JG, Garry D.** Use of vacuum extraction during cesarean delivery: Is it safe? Poster: ACOG. San Diego, CA. May 2017.

**Persad MD, Allaf MB, Wat K, Crnosija N, Chavez M, Vintzileos AM.** Is second trimester placental marginal cord insertion associated with adverse perinatal outcomes? Poster: 89th Perinatal & Development Medicine Symposium. Marco Island, FL. November 2016.

**Plair A, Yang J, Park J, Pearl M, Henretta M, Griffin T.** The Revolving Door? New York State Hospital Readmission Following Hysterectomy for Benign Conditions. Poster: ACOG. San Diego, CA. May 2017.

Yu K, **Quirk JG**, Djuric PM. Fetal heart rate classification by non-parametric Bayesian methods. Talk: IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). New Orleans, March 2017.

**Zhang J., Persad M.D., Crnosija N., Garduno E., Garry D.** Sign by the X in between contractions: readdressing informed consent in the obstetric patient. Poster: ACOG District II. New York, NY. October 2016.



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