Defined as a specialty centered on human sexuality and its disorders, sexual medicine is a unique field encompassing various areas of reproductive medicine; including urology, gynecology, endocrinology, cardiology, and others. Conditions such as erectile dysfunction, loss of libido, dyspareunia, sexuality issues, and others are treated by specialists in the field. There are varying dimensions of sexual medicine—this includes prevention, such as counseling and education; a curative on-take, involving the clinical treatment of specific sexual disorders; rehabilitation, in which patients are helped to regain their sexual health; and lastly awareness, by supporting and teaching individuals how to have a healthy and fulfilling sex life. Within the Center for Reproductive Medicine (CRM), members are working to innovate and build upon these dimensions through ongoing research and interactions with the community—both in clinical and educational capacities. This not only gives us a leading-edge on an otherwise understudied field, but also pushes us to the forefront of a global health need by becoming a positive resource for individuals facing sexual medicine conditions.

In August 2017, Houston and its surrounding areas encountered a devastating hurricane from which thousands lost their homes and personal belongings, were displaced, or left in despair. Recovery efforts began immediately after the storm, and through it we have seen an incredible level of resilience and dedication—with thousands coming to support, volunteer, and help rebuild lives. Baylor College of Medicine has also come to the aide of our community and is offering a variety of Hurricane Harvey Recovery Resources aimed at supporting our faculty, staff, students, and Texas communities. Additionally, CRM members joined forces with Baylor to clean out homes, offer supplies, and volunteer where needed. While the road to recovery is still a long one, we are proud to see the strength of people as they come together for those in need.

I am excited to announce that our fourth annual Reproductive Health Research Day will be on November 7, 2017! This year, we have a superb line-up of Keynote Speakers and talks focused on genome editing, endometriosis, uterine function, men’s and women’s fertility preservation, and much more. See what is in store by taking a look back at our successful 2016 meeting: youtu.be/KgtrhvEv4PI. (Additional details can be found on page two of this newsletter.) I am looking forward to another active fall season, and to seeing you at Reproductive Health Research Day on November 7.

DORRIE
REPRODUCTIVE HEALTH RESEARCH DAY 2017

Join us for a day of science on the leading-edge of men's and women's reproductive health research.

TUESDAY, NOVEMBER 7, 2017
8 a.m. - 6 p.m.
Baylor College of Medicine
Cullen Auditorium, Rayzor Lounge, and DeBakey Lobby

Now in its fourth year, Reproductive Health Research Day 2017 (RHRD17), is bringing together leading scientists from both the Texas Medical Center (TMC) and around the U.S. for an interactive all-day scientific meeting focused on topics such as endometriosis, genomic editing, pre-implantation and fetal surgery, maternal-fetal health, reproductive cancers, men's health, and much more; along with an abstract and poster competition.

Registration includes access to the day’s special discussions, a USB drive containing meeting abstracts, and breakfast, boxed lunch and networking reception. Over 125 people attended last year, and we would love for you to join the action this year. REGISTER TODAY

CALL FOR ABSTRACTS
This poster exhibition provides an opportunity for researchers to share their work with colleagues within the TMC, as well as with visiting senior scholars. Winners will be invited to share their research with a ten-minute talk and five-minute Q&A during the meeting.

T-SHIRT DESIGN COMPETITION
The winning design will be printed on the front of the t-shirt.

Abstracts and t-shirt designs are due by Friday, Oct. 6, 2017 at 5 p.m. to jyotip@bcm.edu.

For abstract and t-shirt submission guidelines: bcm.edu/reproductive-medicine/2017-reproductive-health-research-day

Keynote Speakers

BERT O’MALLEY, M.D.
Chairman and Professor of Molecular and Cellular Biology, Baylor College of Medicine
Molecular Mechanisms of Endometriosis Initiation and Progression

FRANCESCO (FRANCO) DEMAYO, Ph.D.
Senior Principal Investigator and Deputy Chief of the Reproduction and Developmental Biology Laboratory/ Pregnancy and Female Reproductive Group, National Institute for Environmental Health Sciences (NIEHS)
The Molecular Regulation of Uterine Function During Pregnancy

AMY LYNN MCGUIRE, J.D., Ph.D.
Leon Jaworski Professor of Biomedical Ethics and Director of the Center for Medical Ethics and Health Policy, Baylor College of Medicine
Destiny’s Child: Reproduction in the Age of Genomics

PIRAYE BEIM, Ph.D.
Founder and CEO of Celmatix, Inc.
Title: TBD

For More Information
bcm.edu/reproductive-medicine/2017-reproductive-health-research-day

Join us on Twitter @BCM_ReproMed on Nov. 7 as we live tweet using #RHRD17.
BEYOND THE HEADLINES

Professor of Urology and Chief of the Scott Department of Urology’s Division of Male Reproductive Medicine and Surgery, LARRY LIPSHULTZ, M.D., seized an opportunity during his residency, eventually evolving into the renowned advancements and contributions he has made to the field of male reproductive health. Here, Dr. Lipshultz takes us through those early moments in his clinical career, his on-taking of various research projects to advance men’s health, and how one of his greatest contributions revolves around a lineage of aspiring scientists and physicians.

FROM CLINIC TO RESEARCH: CAREER HIGHLIGHTS OF DR. LARRY LIPSHULTZ

Q| What along your path—perhaps starting as an undergraduate at Franklin and Marshall College and moving into your various fellowship trainings at University of Pennsylvania and University of Texas-Houston—inspired you to pursue reproductive medicine, and in particular, your focus on male urologic health?

A| When I was an intern, I really had no particular interest in any facet of urology because I hadn’t started yet. I liked pediatrics and I liked female infertility, but there wasn’t any reproductive medicine at the time. I was rotating in OB/GYN at the University of Pennsylvania (UPenn), when they had a lecturer come in. He spoke about sperm quality and tests he had done on various populations of men (he actually also looked at prisoners) to try to come up with what was normal for a semen analysis. During the course of the lecture, it came up that the Department of OB/GYN at UPenn was just getting into In Vitro Fertilization (IVF)—it had not happened yet. While this was their focus, their biggest problem was that they did not have anyone to see the male patients. This was because there were not any urologists academically involved (there were some dabbling in clinical practice, but nothing really scientifically or academically based). I thought to myself, “If there is no one doing it, and I’m starting my residency, this is something I should look into.” I went to New York and visited with the lecturer from that day, John McCloud, Ph.D., who was very famous in the area of sperm physiology and testicular function. Then I spent a day with two other doctors in New York working in fertility, but not scientifically nor with a scientific approach. Then I spent some more time with another doctor in New York who was looking at immunological aspects of male infertility. After all this, I started to have a better understanding of the basics of male infertility, and for my lab year at UPenn I decided to focus on this area of men’s health.

I first developed a technique on how to approach the patient. Then I set up a clinic where I saw patients (referred by the staff) as a private physician, one day a week. The nurse for the department became my technician and learned how to do a semen analysis.

Dr. Lipshultz is Professor of Urology and Chief of the Scott Department of Urology’s Division of Male Reproductive Medicine and Surgery, and Member of the Dan L. Duncan Comprehensive Cancer Center at Baylor.

AWARDS AND HONORS HELD BY DR. LIPSHULTZ

2015 American Medical Systems F. Brantley Scott Award of Excellence

2016 American Urological Association (AUA) Distinguished Reproductive Urology Award

2011 American Society of Reproductive Medicine Service Award

2010 AUA named him “one of the most respected surgeon scientists and mentors in Urology”

2005 AUA Hugh Hampton Young Award

1975 American Urological Association Research Scholar
We were the only ones at UPenn seeing male patients for reproductive problems. It wasn’t difficult to get patients because the gynecology department was developing a reputation for female infertility. When the couples came, they had nobody to see the men, so I started to see the male patients. It was easy because I was the only M.D. in this area, and the gynecologists were getting so busy that I became their go-to person for male patients, even though I was still a resident.

By the time I was a chief resident, I had my own practice, and that’s how it all began. It started because I was filling a void, and it just took off because no one else was doing it.

When I finished my residency, one of the head urologists from UPenn came down to Texas to start the Urology department at the University of Texas – Houston (UT–Houston), and he encouraged me to apply for the American Urological Association (AUA) Research Scholar Program, since there was someone who was running a department devoted to reproductive issues. I ended up doing a two-year fellowship down here with Dr. Emil Steinberger, and that was the beginning of the scientific/basic research aspect of my reproductive medicine career. I spent the year working on human Sertoli cells. I studied how to culture them, and tried to develop tests to define when they were normal or abnormal, since no one knew how to test that.

Q Can you discuss some of your current research work, and where you hope to see it go?

A One of the areas that we are working on clinically is looking at shift workers. Over the past two years, we have had a major focus on studying the impact of working shifts, and also a sub-population of shift workers who develop shift work sleep disorders. We have looked at how these sleep issues impact numerous urological diseases. What we’re finding is that shift work sleep disorders affect a subset of shift workers whom tend to have more frequent problems with hormone imbalance, erectile dysfunction, impaired sperm productions, and other related issues. About 15% of the U.S. workforce is shift workers. However, in Houston, because of the refineries, chemical plants, rail road industries, huge healthcare industry, and so on, there is a significant number of shift workers. Per capita, we [Houston] probably have a much greater population of shift workers; therefore, it makes an ideal setting to look at some of these issues.

We’ve also been looking at patients with Peyronie’s Disease. Dr. Alexander Pastuszak and I now have —
— basic research on-going to try and look at the etiology of Peyronie’s Disease and answer questions such as, *Why do people get it? What is the genetic implication of this?* or *Do men with Peyronie’s Disease have a genetic pattern or gene mutations that we can identify?* Recently, we’ve been looking through a large insurance database to associate Peyronie’s Disease with other diseases (e.g. cancer, autoimmune disease, and so on).

**Where are we going with this whole area of men’s health?** We want to establish a clinic for men’s total health care. This way a man can come to our clinic (which would be out in the community), and have all their men’s health care needs addressed. For example, we would triage them to a gastroenterologist for their colonoscopy, or maybe to a cardiologist for elevated cholesterol, hypertension, or routine stress tests. It’s about getting men to the right doctors at the right time (which a lot of them are not doing).

**Q|** What do you feel has been the most rewarding aspect of your career, thus far?

**A|** Starting the fellowship and having so many fellows within the U.S., Europe, and all over the world doing the same type of men’s health care that we do. It’s as if we started a “fraternity” of fellows by exchanging ideas and working on projects together. This is something that lives on—these fellows will probably have fellows, and it will just continue. What started with just me at the University of Pennsylvania has now gone viral.

**Q|** What advice would you give to somebody starting off their career, whether it’s in medicine, science, or another field?

**A|** The important thing is to find an area of medicine and/or research that really intrigues you and holds your interests. Then your work does not become work—it becomes something that you do that you enjoy—then it’s not like a job. When you go to work in the morning, you want to look at what you’re about to do as something enjoyable and fulfilling. There is a unique spot like mine for everybody, but you have to look for it.

“Larry was so instrumental to my career years after Baylor. He cared about me, put me in positions of leadership in organizations and educational events, and built my career from the ground up. That’s a model, and I’ve been trying to follow that. I still have yet to achieve what Larry does naturally.”

—Dr. Craig Niederberger, BCM alumni and fellow working with Drs. Lipshultz and Lamb, in an interview with the CRM. See page 8 for full interview.

On a different bent, and at the same time, there was a large population of transsexuals in Houston. As part of my research in developing human Sertoli cell assays, I needed testes that were enriched in Sertoli cells. Transsexuals take estrogens which turn off the production of all cells in the testes except Sertoli Cells. They had these Sertoli-cell enriched testes, so I decided I would start doing the surgeries and as spinoff I could use the testes that we removed for my research. We ended up doing over 70 surgeries on transsexuals.

Dr. Lamb and I then started a research fellowship where we would have two-year fellows as opposed to just one-year clinical fellows. They would spend a part of those two years with Dr. Lamb and a part of it with me. We’ve had quite a number of research fellows—many of whom have received AUA fellowships; thereby, establishing this lineage of fellowships that has taken off since I first received the AUA Research Scholarship. **Between Dr. Lamb and me, we’ve had over 100 graduated fellows!**

Additionally, we’ve done a lot of clinical research, including looking at new drugs, especially when Viagra and Viagra-like drugs were starting to be popularized. When testosterone products started becoming widespread, we did some of the early clinical research on the efficacy and side effects of testosterone therapy. Over the years, the practice evolved and not only focused on male fertility, but also addressed overall male reproductive health. We see a lot of patients with infertility, testosterone deficiency, erectile dysfunction, and other health-needs. My practice has become more men’s health focused, and less narrowly focused on infertility.
AMERICAN UROLOGICAL ASSOCIATION (AUA) 2017 ANNUAL MEETING
MAY 12 - 16, 2017 | BOSTON, MA

As one of the largest meetings to encompass the latest advancements in global urologic medicine, the American Urological Association’s (AUA) 2017 annual meeting wrapped up its 112th year with over 16,000 attendees in Boston, Massachusetts. CRM members presented on a wide variety of topics, and also took part as session and poster moderators, judges, debaters, course directors, workshop instructors, and panelists throughout the week. Members focused on topics such as sperm aneuploidy, Peyronie’s and Duputren’s Diseases, testosterone therapy, prostate cancer, erectile dysfunction, urologic trauma, hypogonadism, imaging, and many others. Members who attended included Drs. Dolores Lamb, Alexander Pastuszak, Larry Lipshultz, Richard Link, Michael Coburn, Mohit Khera, Rose Khavari, Amin Herati, and Taylor Kohn. For a full recap: aua2017.org

FRONTIERS IN REPRODUCTION (FIR) APRIL 29 - JUNE 11, 2017 | WOODSHOLE, MA

Wrapping up its 20th year, Frontiers in Reproduction (FIR) held another fascinating six-week long laboratory and lecture course at the Marine Biological Laboratory (MBL) in Woodshole, Massachusetts. Leading investigators from over 20-30 institutions engaged participants in lectures, discussions, informal seminars, laboratory exercises, demonstrations, and one-on-one tutorials, in all areas of reproductive biology. During summer 2017, CRM leaders Drs. Dolores Lamb and JoAnne Richards provided lectures in different tracks related to ovarian follicular development and genetics of male infertility.
SSR 2017 TRAINEE RESEARCH PLATFORM WINNER—SECOND PLACE

“The ZBTB-16 Transcription Factor is Required for Endometrial Stromal Cell Decidualization”

Maria Szwarc, Ph.D.
Postdoctoral Associate, Lab of Dr. Bert O’Malley,
Department of Molecular and Cellular Biology

Successful embryo implantation requires local endometrial decidualization, a cellular process by which endometrial stromal cells (ESCs) transform into decidual cells in response to progesterone. Apart from providing an immunotolerant microenvironment, decidual cells direct the embryonic trophoblast to the maternal vasculature to establish placentation. Therefore, inadequate decidualization is not only causally linked to infertility and early pregnancy failure, but also threatens the integrity of the fetomaternal interface in later trimesters.

Although extensive transcriptional reprogramming is known to drive decidualization in response to progesterone, the key molecular effectors that directly mediate the progesterone response are not fully known. We recently revealed that the promyelocytic leukemia zinc finger transcription factor (PLZF/ZBTB16) is a direct target of the progesterone receptor (PGR) and is essential for progesterone-dependent decidualization in human and murine ESCs (hESCs and mESCs, respectively). In the case of hESCs, bioinformatics analysis of integrated PLZF cistrome and transcriptome datasets followed by in vitro validation studies revealed that PLZF controls the expression of genes involved in cell division and cytokine signaling with local immune cells, which together constitute critical cellular responses that are required for the development and function of the decidual cells in vivo. Our future studies on PLZF and its targets will significantly expand our molecular understanding of progesterone-dependent decidualization and may provide molecular targets to improve diagnosis and treatment of patients at high risk for early pregnancy loss.

SSR 2017 SHORT TALKS AND POSTERS BY CRM MEMBERS CONTINUED

“TCTE1 is a Conserved Component of the Dynein Regulatory Complex and is Required for Motility and Metabolism in Mouse Spermatozoa” — Julio Castaneda

“Delayed Male Germ Cell Specification Permits Transition into Embryonal Carcinoma Cells with Primed Pluripotent Features” — Emily Dawson

“Adaptations of Irisin-Betatrophin Axis to a Low Protein Diet in Pregnant Rats in Late Pregnancy” — Haijun Gao, Ph.D.

“SMAD1 and SMAD5 are Essential for Female Fertility, Uterine Receptivity, and Hormonal Response” — Diana Monsivais, Ph.D.

“Gestational Diabetes Results in Increased Energy Expenditure in a Mouse Model” AND “Negative Impact of Gestation Diabetes Mellitus on Long Term Maternal Hepatic Energy Metabolism in a Mouse Model” — Kathleen Pennington, Ph.D.

“Mrnip is a Ubiquitously-Expressed Gene Required for Male Fertility” — Renata Prunskaite-Hyyrylainen, Ph.D.

“Protein SUMOylation is Essential for Oocyte Development and Female Fertility in Mice” — Amanda Rodriguez

For complete versions of these abstracts: ssr.org/17ItineraryApp
Described by CRM Director, Dr. Dolores J. Lamb, as a “great mathematical mind,” CRAIG NIEDERBERGER, M.D., FACS, received his medical degree from the University of Pittsburgh, followed by residencies in surgery and urology at Michael Reese Hospital and the University of Illinois at Chicago (UIC). He then went on to complete his fellowship in andrology at Baylor. He is currently Professor and Head of the Department of Urology at UIC, and Professor of Bioengineering at UIC College of Engineering. Dr. Niederberger’s ability to creatively think about science has given way for an innovative research path, while still serving as a physician and mentor. Here, Dr. Niederberger shares how his experience at Baylor shaped his career path, the individuals who greatly influenced him, and current research endeavors.

Q| How did your Fellowship training at Baylor prepare you for your career?
A| Dorrie suggested that I do the American Foundation for Urologic Disease two-year grant program, and she was instrumental in preparing that proposal. At that time, the proposal was around molecular biological work to figure out the genes that are turned on in the making of the sperm and testes. While I was there, I became more and more interested in artificial intelligence—Dorrie really supported that. She provided the computational resources and really allowed me to grow in that direction, as well as in the basic science direction. I came out of Baylor, on the scientific end, with two different areas of research interests—one in molecular biology (I continued that for a number of years), and the other in software engineering and computer science (in that, I still am working on today).

It was not just what was going on at Baylor, in terms of science (which has been absolutely key to my being able to function as I do today as the department head, working with other scientists, and having a real ability to understand and appreciate their work), but it also allowed me to grow in my own direction.

Dorrie said something that was very influential to me. She said that if you leave (meaning, you do not practice science for a couple of years), by the time that you come back, you are behind.

My interpretation of that is that everything is changing so fast—to learn the corpus of material isn’t enough. In fact, that is not even the point. To really develop, you need to learn how to learn, and that’s what was really provided to me at Baylor.

Q| Can you describe one or two fond memories you had from your time here at Baylor?
A| For one, my oldest daughter was born in Texas, and she’s still proud to be a Texan! I also developed a lot of friends there; probably my closest friend is Dr. Andy Meacham. We had very little overlap, but enough overlap to develop a friendship that would last our lives. The interesting thing about Dr. Larry Lipshultz—he does this without any effort and without realizing—he collects people around him. He’s very dynamic and charming, and people want to be around him. Even after you leave Baylor, you still are in that social universe.
It’s a really wonderful thing to be close to so many incredible, intellectual, and good people.

**Q|** Dr. Lamb praised you for your keen mathematical skills, ability to think outside of the box, and take on a creative look at science. How do you think this skill set, plus your skills as a bioengineer have translated over or helped you navigate through your scientific work?

**A|** I really developed a foundation at Baylor—both in being able to practice the art of reproductive medicine for the male, as well as in really understanding what the literature was saying, and how to adapt it to patient care. In terms of science, it’s that day-to-day activity. Going into the lab, doing the research, getting to know how researchers think and how they approach problems creatively and analytically. In that foundation, I am still learning how that plays out—that’s a life-long thing to learn.

**Q|** Can you talk about any exciting research projects you are working on right now, and possibly where you would like to see them go?

**A|** My basic interest in engineering focuses on surgical user interfaces. Think about the user interfaces that you commonly use—you get into a car, and you drive the car. You can get into that car in Germany or in Italy, and instantly you know how to use it. The user interface of a car is incredibly well developed and refined. Another example is the sewing machine, invented in the mid-19th century. Up until that time, people were sewing by hand, with needle and thread. The sewing machine allowed people to start sewing in bulk, and it changed history. The thing which made sewing more accurate and efficient was invented in the mid-19th century. What we’re doing now with surgical residents isn’t even there. We don’t have sewing machines for surgery—we are still sewing with needle and thread. Having a developed user interface for surgeries would not only make it faster, but it would also make it safer and more accurate in the operating room. This is something we are working on.

Another area of interest is in giving “force feedback” to surgeons. When you put force onto an object, you don’t know how much force you are putting onto it—you are not designed to know that. We are really good at sensory detection; however, none of us are good at discriminating between various magnitudes of force applied. That’s a problem in surgery. For example, if you have nerve tissue, you can kill it with just a couple of extra decimal points of force. During surgery, one can undershoot or overshoot the amount of force, and it’s just not our biological fault because we have no way of knowing how much force needs to be applied. My team is working on solutions for that too. Lastly, we are also interested in the cool haptic stuff, such as giving feedback to somebody feeling something in augmented reality. Also, for a surgeon who is either in training or thinking about doing a case and wants to plan the best approach, can we show them in 3-dimensions what that would look like and demonstrate how that would feel? These are all the things that fit into the surgical user interface field.

**Q|** What advice do you have for a starting scientist and/or student?

**A|** If you are a creative person, get into a creative environment. You’ve just spent four years of college, four years of medical school, six years of residency, and a year or two of fellowship. Of course, you want to get out and practice, but look for the positions where you can be the most creative. There, you are going to get more pleasure than serving the public health. Serving the public health is so gratifying and wonderful, but when I look around, I see a lot of people that burn out. They retire in their early 40s or 50s and it’s because the day-to-day level of responsibility and work load is enormous, and it takes a toll. I don’t know anybody in academic that burns out. Being surrounded by inquisitive, creative people doing things that are so cool and that you can interact with—no body burns out there.

If you are in it for the joy of what you do, then go for a job where a chunk of that is creative. The academic environment is more than education—its creativity, discovery, and innovation as well.

**Q|** What do you believe is your most significant contribution to reproductive medicine?

**A|** For reproductive medicine, it’s the realization that just as there is endocrine stimulation that results in ovulation, which is a critical part of In Vitro Fertilization (IVF) for the female, endocrine stimulation works for the male as well, especially in spermatogenesis. There was natural cycle IVF at one point, and still exists to certain degree, especially where you have severe limitations around resources; but for the most part IVF is stimulated. There is a realization that every woman has her own cookbook. You start with one stimulatory protocol and then move on to the next one, based on how the woman responds. We haven’t been doing that with men for a very simple reason. This is because ovulation is very discrete and observable—you can see an egg on an ultrasound. This can’t be seen in spermatogenesis. You have a semen analysis and it’s all over the place—its 0 to 100 million within a couple of months (that’s with a very typical guy).
Trying to figure out endocrine stimulation with that is impossible.

Now, all of a sudden, we have the ability to surgically go into the testes for guys that have no sperm, take test tissue out, and get some sperm from that. You can increase those yields substantially by adopting that same kind of endocrine stimulation strategy that is used in the female. I would say that’s the one significant contribution.

Q| Is there anything else you’d like to share about your experience?
A| I spent two years at Baylor with Dorrie and Larry, and it was really special. If I think about the two years of my life that were the most wonderful—it would be those two. It was because I didn’t yet have the harsh responsibilities of being an attending or directly responsible for things. I was free, I could learn, and I could study whatever was interesting to me. I could also learn the state of the art in male reproductive medicine.

It was wonderful to be in such a creative environment and to be at Baylor, which in many ways is at the center of universe when it comes to a lot of medical discovery and innovations. That’s a very exciting thing to be in.

Dorrie cares about each and every person around her—she is a natural leader. Her ability to emphasize and connect with other people and appreciate their creative contribution, while at the same time be an extraordinarily precise, analytical mind—I have yet to encounter that in another person. Larry naturally was the nucleus of a world that coalesced around him—of people with similar passions. He created this universe of truly wonderful people, that didn’t stop with Baylor. Larry was so instrumental to my career years after Baylor. He cared about me, put me in positions of leadership in organizations and educational events, and built my career from the ground up. That’s a model, and I’ve been trying to follow that. I still have yet to achieve what Larry does naturally.

It’s these two extraordinary people that have made it possible for me to do whatever it is I am doing. I think that’s the most important thing—while it is about the foundation, it doesn’t tell the story. The real story is after. What do you do with somebody when they leave? That’s something that I am still trying to figure out with the residents and fellows that I train. How do I come out to the success that Dorrie and Larry have?
COMMUNITY AND OUTREACH

SUMMER MEDICAL RESEARCH AND TRAINING PROGRAM

During summer 2017, two undergraduate students—Minerva Solis and Atzhiry Paz—joined the CRM to pursue paid internships through the Summer Medical and Research Training (SMART) Program. Over a nine-week course, our interns were given reproductive medicine research and lab experience, and participated in science lectures given by top Baylor scientists. Below, are excerpts from Minerva and Atzhiry describing their experiences. For their full features: bcm.edu/research/centers/reproductive-medicine/outreach/smart-program.

MINERVA SOLIS
Senior, St. Thomas University, TX
Under the mentorship of Carolina Jorgez, Ph.D., Assistant Professor of Urology, and Joshua Moore, Research Associate for the CRM, Solis got an introductory look into reproductive medicine research focused on diseases and mutations that are not as common. “One thing I’ve always said, and the reason I pursed science, is that I want to study those rare cases of diseases that get pushed aside because they are not so popular,” said Solis. Throughout the summer, she assisted Dr. Jorgez and Moore with learning about the role of PATCHED1 in heart and lung disease, and how it can cause defects in the male genitourinary area. In conjunction with this, she helped with data computation, utilized micro CT scans, delved into genotyping, C-stains, fluorescent staining, and other experiments. Upon graduating in December 2017, Solis plans to take her experiences onto studying rare diseases, and applying it towards patient care.

ATZHIRY PAZ
Junior, Prairie View A&M University, TX
Alongside mentor, Boryana Zhelyazkova, Graduate Student/Research Assistant in the Department of Molecular and Cellular Biology, Paz learned the ropes of reproductive medicine research within Dr. Lamb’s Lab for Male Reproductive Research and Testing (LMRRT). Over the summer, Paz helped Zhelyazkova in studying the effects of the KCTD13 gene, including its importance in the structure of different prostates and role in prostate cancer. As Paz pointed out, “What’s been interesting is how specific these genes are—how they play a role in even the smallest things that make up a human being.” While Paz hopes to pursue a clinical career in OB/GYN one day, she said her summer experience may have opened up another door for her. “I’ve found that I really like doing research. It’s nice doing something physically, yourself, to better a situation, or to better understand a disease,” said Paz.

SATURDAY MORNING SCIENCE 2 FALL 2017

Saturday Morning Science 2 (SMS 2) returns this fall with a new group of high school students ready to advance their biology and science knowledge. Morning lectures will be held in Alkek, Room N315. Dates for fall 2017 are 8:30 a.m. - Noon on Saturday:

• Sept. 30: “Genetics and Genomics in Kidney Diseases” with Reza Bekheirnia, M.D., Assistant Professor of Pediatrics-Renal
• Oct. 14: “What Genetics Can Tell Us About Male Infertility” with Dolores J. Lamb, Ph.D., Director, CRM
• Nov. 18: “Why Pediatric Urology” with Abhishek Seth, M.D., Assistant Professor of Urology
• Dec. 9: “What Genetics Can Tell Us About Reproductive System Cancers: Gene-virus Interactions in Cervical Cancer” with Michael Scheurer, Ph.D., M.P.H., Associate Professor of Pediatrics-Oncology
RECAP:
CRM QUARTERLY MEMBERSHIP MEETING AND RECEPTION
JUNE 15, 2017

CRM Director, Dr. Dolores J. Lamb, welcomed members with an overview of the center’s progress, along with news from Academic Council Meetings, and praised the many achievements in research, education, and outreach put forth by members in the first quarter of the year. Alongside Dr. Lamb, David Rowley, Ph.D., Professor of Molecular and Cellular Biology, discussed the role of the Faculty Senate, his appointment as Education and Curriculum Committee Chair, and the roll-out of two new initiatives—an enhanced J1 Visa Process and a Genetic Counseling Program through the School of Allied Health Sciences. Marie-Claude Hofmann, Ph.D., Professor, Department of Endocrine Neoplasia and Hormonal Disorders at MD Anderson, provided a wrap-up of the 2017 Texas Forum for Reproductive Sciences (TFRS) meeting; Carolina Jorgez, Ph.D., Assistant Professor of Urology shared her involvement as the Faculty Inclusion Ambassador and results from the Faculty Diversity Engagement Survey; lastly, Amanda Rodriguez from the lab of Stephanie Pangas, Ph.D., Assistant Professor of Pathology, reviewed their research in oocyte development.

UPCOMING EVENT:
CRM AND MCB R&D WORKSHOP SERIES

“Regulation of the Spermatogonial Stem Cell Niche”

MARIE-CLAUDE HOFMANN, Ph.D.
Professor
Department of Endocrine Neoplasia and Hormonal Disorders
UT MD Anderson Cancer Center

Thursday, October 12, 2017
12 - 1 PM | DeBakey, M616

Mark your calendars for our remaining 2017 seminars: Nov. 9 and Dec. 14.

AWARENESS MONTHS:

September is National Ovarian Cancer Awareness Month

September is Prostate Health Awareness Month