The Quarterly Newsletter of the
Department of Obstetrics, Gynecology
and Reproductive Sciences

Vol. 5, 2020

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Research
Dear Colleagues,

You’re seeing a NEW (and temporary) face in this Chair letter space. It is my honor to serve as the Interim Chair while the search committee conducts the national search for the next permanent chair of the Department of Obstetrics, Gynecology and Reproductive Sciences.

During his 6-year tenure, our outgoing chair, Charlie Nager, worked diligently to highlight the fabulous clinical care, education and research that our UC San Diego team contributes. UC San Diego has long enjoyed a reputation as one of the best basic science medical schools in the nation, and our NIH funding continues to be in the top 5. Most of you already know about the diversity and depth of clinical expertise we have at UC San Diego. And now, the latest “U.S. News and World Report”, knows it too – UC San Diego ranks #1 in San Diego.

Dr. Nager led the development of women’s reconstructive pelvic surgery as a key element for the San Diego community. We are fortunate that Dr. Nager will continue to contribute surgical care and education on a part time basis during this next phase of his professional life.

Dr. Nager’s work to expand clinical service included the recruitment of two dozen new attendings. In this issue of Fimbria, you will meet several new faculty members we have welcomed to our department.

Our education programs continue to be very, very strong – now with virtual interviews for residents and fellows due to the COVID-19 pandemic. Our trainees adapt and keep smiles on their masked faces. They all wear a button with their picture so that our patients know who is caring for them.

Research success is a continuing source of excellence for the department, with more than half a dozen new R01s received or imminent. Our successful WRHR was renewed, which will fund us through 25 years of training new leaders in academic medicine. Our research education programs are enhanced by two different T32 training programs: REI and Cancer Therapeutics.

So far 2020 has been a year like none other. It is with gratitude that I serve along with our staff, trainees and faculty to advance academic medicine at UC San Diego. There is palpable excitement and energy in the air as we prepare for the incoming permanent chair. Enjoy this issue of the Fimbria. You can also follow us on Twitter @UCSD_ObGyn. Looking forward to connecting with you again, soon.

LINDA BRUBAKER
Professor and Chair (Interim)
Department of Obstetrics, Gynecology & Reproductive Sciences

VICE CHAIRS
Education
  YVETTE LA COURSiERE
Clinical
  CHRISTINE MILLER

DIVISION CHIEFS
Family Planning
  SHEILA MODY
Maternal Fetal Medicine
  THOMAS KELLY
Hospitalist
  GINA FRUGONI
Gynecologic Oncology
  MICHAEL McHALE
Obstetrics and Gynecology
  PAMELA DEAK
Urogynecology
  EMILY LUKACZ
Reproductive Endocrinology and Infertility
  ANTONI DULEBA

Fimbria Team
Dwayne Stupack, Cynthia Pena
Welcome to our new interns, who started July 1st.
Our interns are:

Johanna Burch MD
Ammar Joudeh MD
Omar Mesina MD
Elisabet Qendro MD
Hayley Schultz MD
Renee Sullender MD

Congratulations to our chief residents who graduated in 2020:

Elizabeth Coulter, MD
Kaiser Permanente, San Diego
Fellow, Gynecologic Oncology
UC Davis (2021)

Alexa Medica, MD
Fellow, Reproductive Endocrinology & Infertility,
UC San Diego

Brooke Sanders, MD
Fellow, Gynecologic Oncology,
University of Colorado

Giselle Zornberg, MD
Kaiser Permanente, San Diego

Erin Swor, MD
University of Michigan
Ann Arbor
UCSD Health Ranks in U.S. News and World Report
UCSD ranked #1 in San Diego and #6 in all of California, placing it among the top hospitals in the Nation. The Department of Obstetrics, Gynecology and Reproductive Sciences received its debut national ranking, at 46.

Department Renews NIH WRHR Grant
The UC San Diego department of OB/GYN and Reproductive Sciences was awarded a 5-year renewal of our Women's Reproductive Health Research (WRHR) Program. This will be our fifth 5-year term taking us from year 21 to year 25! This provides a wonderful opportunity for scholars @UCSDObgyn

Resident Graduation Awardees 2020
Brooke Sanders, MD: House Staff of the Year Award, & Women & Infants Service Chief Resident Award, & Society for Gynecologic Oncology Award.
Erin Swor, MD: Society for Academic Specialists in Obstetrics and Gynecology (SASOG) Award, & American Association Gynecologic Laparoscopy Award.
Giselle Zornberg, MD: UC San Diego midwives Outstanding Resident Consultant Award, & Society of Laparoscopic Surgeons Award.
Josephine Doo, MD: UC San Diego Urogyn Award
Diana Ha, MD: Gold Humanism in Medicine Award
Christina Lam, MD: Ryan Program Resident Award for Excellence in Family Planning
Erin Mowers, MD: Kaiser Excellence in Teaching Award
Kelsey Pinson, MD: Department Research Day Award
Ashten Waks, MD: 2020 SMFM Resident Award for Excellence in Obstetrics

Other Honors...
Congratulations
Jennifer Dumdie, PhD
who was awarded the
Chancellor's Dissertation Medal
for research excellence. Jennifer is a Medical Scientist Trainee with the Wilkinson and Cook-Andersen labs.

Congratulations
Sierra Washington, MD
who was recognized with the
Excellent Consultant Award
The UCSD Department of Emergency Medicine recognizes frequently called upon consultants for responsiveness, professionalism, friendliness and enthusiasm.

Congratulations
Professor Pamela Mellon, PhD
who was selected for the
Outstanding Mentor Award in STEM

Fellows Award Recipients, 2020
Marianne Hom, MD (GynOnc Fellow)
Kaiser “Excellence in Teaching” Award
Allison Barrie, MD (GynOnc Fellow)
UC San Diego Fellow Teaching Award

Faculty Teaching Awards 2020
Jessica Kingston, MD
MDAPGO Excellence in Teaching
Pratibha Binder, MD
ACOG/CREOG Faculty Award
Julia Cormano, MD
SASGOG Faculty Award
Stephen Hebert, MD
James H. Price Teaching Award
Jorge Alvarado, MD
Academy of Clinician Scholars Whitehill Prize for Excellence Award
Assigning Risks of Ovarian Failure with Chemotherapy

Cancer is a diagnosis that carries fear, made even more difficult for young women facing choices with their fertility. The chemotherapy used to treat the cancer can be associated with an increased risk of infertility, with some drugs, such as cyclophosphamide, representing highly gonadotoxic agents.

To better understand the individual risks associated with chemotherapy, UCSD investigator Irene Su, together with colleagues at USC, UPenn and the Sloan Kettering Cancer Instuiute, examined the DNA of 115 premenopausal women, looking for potential biomarkers to indicate risk. In particular, they focused on P450 enzymes that activated cyclophosphamide, and detoxifying agents (glutathione transferase enzymes). Within the cohort, 28% of women went on to develop chemotherapy-related ovarian failure after treatment with cyclophosphamide.

The uncommon (minor) allele of glutathione transferase A1 (GSTA1) appeared significantly protective, while the minor form of CYP2C19 appeared to indicated increased risk. Yet with a deeper analysis using mutivariable models to adjust for age and the use of tamoxifen, the significance failed. GSTA1 fell just outside with p=0.05, while CYP2C19 was backed further out (p=0.11). Lindsay Charo, the lead author of the manuscript and senior Gyn/Onc fellow at UCSD, pointed out that the trends were robust, although the cohort simply lacked the power for the multifactorial analysis. Replicative studies may help resolve these issues. They could also provide opportunities for mechanistic links to AMH, FSH or estrogen levels to further alidate CROF, and to provide a more precise evaluation of risk.


Recent Publications

Despite COVID, Department members have been productive, including these 55 publications over the summer.


7. Fimbria Quarterly


More on pages 9-10.
A Homecoming of Sorts

Lewis Labs Relocate to UC San Diego

Relocating a lab in 2020 has presented special challenges, but both Lewis groups are now up and running. Jointly appointed within Obstetrics, Gynecology & Reproductive Sciences and the Glycobiology Research and Training Center (GRTC), there is an element of homecoming to the relocation. Both Warren and Amanda trained in San Diego. In fact, Amanda was one of the early trainees in the nascent GRTC of which she is now the Associate Director. Currently led by Ajit Varki and Jeff Esko, the GRTC is celebrating 20 years of cutting edge research. Warren trained at The Scripps Research Institute in chemistry before switching his focus to the microbial world. The pair bring a wealth of knowledge to bear on studies of the gynobiome.

The Lewises explain the microbiome in a way that is easy to understand. A healthy microbiome is an ecological system. When it is in balance, it works with the body to limit disease causing pathogens and promote good health. The “good” bacteria are outcompeting the “bad” bacteria. This doesn’t mean that potentially harmful types of bacteria are absent. If too many “bad” actors accumulate, there is the potential for symptomatic disease. But generally, these bacteria are kept in check, and may even be contributing to the ecosystem in a positive way. In fact, she notes that detecting a few bacteria that could be bad actors might cause problems if over-interpreted. Antibiotics, which are the go-to to treat bacterial pathogens, cause havoc in our microbiomes, which require time to recover afterwards.

While attention has been given to the gut microbiome and its role in women’s health, the workings of the vaginal microbiome has been less well studied, particularly from an experimental standpoint. Most studies have been dependent upon samples taken from women, and evaluation of their bacterial composition. However, the Lewis labs take it one step further, establishing systems in mice and testing causal outcomes in a controlled and reproducible way.

This is really a frontier, and few labs across the world are poised to do these studies and actually prove which types of bacteria cause which physiologic effects (instead of just making educated guesses). In fact, recent findings suggest that certain organisms common to the vaginal microbiome can cause other organisms to bloom or become more pathogenic. In some cases, damage caused by one type of bacteria can persist after the body has eliminated it. Such cellular damage may open the doors for other organisms to cause overt infection, even though testing symptomatic women might never detect the triggering microbe. These interactions among our resident bacteria go down to the molecular level, where the production of an enzyme by one set of organisms might enable a second group to feed more deeply on the barrier of carbohydrates our cells secrete to protect themselves. While these interactions are only just beginning to be understood, it’s already clear that a big part of our understanding of this complexity will now come from UCSD.
New Faculty
David Klein, MD

Fimbria Quarterly recently interviewed one of our newest attendings, David Klein. As you will read, David brings an amazing array of skills to UCSD. They will certainly serve him well as he launches this newest phase of his career.

FQ: Welcome David. Can you tell us a bit about your roots?

DK: I grew up in the north side of Chicago and lived downtown for nearly a decade, before moving to California.

FQ: Is that where you did your training?

DK: Some of it, yes. I studied philosophy and psychology in college so that I could begin developing a framework for critically thinking about ethical, social, and psychological structures. That early training has strongly informed my personal beliefs, my approach to personal and professional relationships, and my role as a clinician, advocate, and educator.

After college, I lived and worked in Guatemala and the Dominican Republic before working as a basic neuroscientist for three years at Northwestern University in Chicago. During that time I completed a disability ethics scholarship program and a Masters in biostatistics there before matriculating to the medical school in 2012.

I moved to California for residency at UCSF in 2016, where I developed research interests in peri-operative practice and lower genital tract dysplasia, as well as professional interests in legislative advocacy and health disparities.

FQ: Which brings you to UCSD? What attracted you to the program here?

DK: I think that UC San Diego's strongest asset is its people. The culture is collegial, the leadership is thoughtful and supportive, and the staff and residents are bright, invested, and conscientious.

As an early career physician, I have felt so blessed to have Dr. Deak and the women’s healthcare clinicians in this department as colleagues and role models.

FQ: Have there been any problems adjusting to San Diego from the perspective of family?

DK: No, essentially none at all. My partner Caroline recently transitioned to a full-time novel-writing career from a successful career in finance and business. A Tampa-native, she has lived in Cambridge, Hong Kong, and San Francisco prior to moving to San Diego this summer. The environment suits her well. She loves scuba diving, endurance races, and anything adventure. Caroline loves having the ocean and abundant trails to explore!

FQ: What are you hoping to accomplish career-wise at UCSD?

MR: I am excited to leverage my research skills, my leadership experience in the American College of OB/GYNs, and my passion for teaching to advance the mission of our academic healthcare center.

Please reach out to discuss ACOG involvement, research collaboration, or teaching opportunities.

I also have a strong, long-standing interest in projects related to legislative advocacy and health equity!

FQ: Thank you, David. I’m sure that you will be integrated into more projects than you expect. We are happy to have you with us at UCSD.
Establishing the UC San Diego Center for Perinatal Discovery

With an ultimate goal towards revolutionizing reproductive health care, the Center for Perinatal Discovery at UC San Diego was launched. The Center is focused on the use of cutting-edge technologies to improve maternal and child health throughout the lifespan. This goal is founded on observations that events and exposures which occur during pregnancy, such as pre-eclampsia, are long-reaching in scope, and can shape an individual’s entire life. Pre-eclampsia is a complication that occurs in mid- to late-pregnancy, and is most commonly picked up as a rise in blood pressure accompanied by an elevated amount of protein in the urine. If not properly treated, preeclampsia can lead to serious complications for both mother and baby, such as organ damage or even death. To accomplish its goals, the Center will catalyze collaborative research among clinical, translational, and basic researchers from diverse research areas. These range from stem cells to radiology, epigenomics to computer engineering, immunology to public health, and the microbiome to psychiatry.

The Center is a focal point for these diverse approaches, and benefits from significant support from the community, including patient advocacy groups, such as Star Legacy and Empty Cradle. The center also builds upon the tradition of reproductive research established at UC San Diego by the late Kurt Benirschke, a legend in comparative reproductive science and author of the reference text, “The Pathology of the Human Placenta,” now in its 6th edition.

The Center for Perinatal Discovery will engage the world-famous San Diego Zoo as a community partner, as Dr. Benirschke did in the past. Similarly, the Center will focus significant efforts to understand placental biology and to predict and develop treatments for pre-eclampsia.

However, the center will use approaches well beyond those from Dr. Benirschke’s genetics laboratory, established more than 4 decades ago at UC San Diego.

While steeped in this rich culture of scholarship, translation is the core theme of the center. Founded and directed by Mana Parast and Louise Laurent, a pair of incredibly talented and driven dual-threat (MD PhD) investigators, the ability to quickly translate research to the clinic has always been the focal concept as the Center was conceptualized. Drs. Laurent and Parast hope to catalyze collaborations across UCSD that will lead to discoveries and inventions that will allow us to better identify and monitor women at risk for a variety of pregnancy complications, and to develop interventions to prevent or ameliorate those complications. In line with the theme of life-long health, understanding the impact of prenatal events on postnatal health for the child and the long-term health of the mother are further areas of focus.

A major initiative of the Center for Perinatal Discovery will be FAMILIA, an ambitious plan to recruit 1000 women prior to conception or during the first trimester of pregnancy and to collect clinical data and biosamples before, during, and after pregnancy. The data accumulated form this population-based study will allow the center investigators to not only identify associations between specific risk factors and outcomes, but also to test mechanisms that link risk factors to specific outcomes. Other initiatives include creating advanced models of the human placenta that will permit high-throughput screening of thousands of compounds to aid in the more rapid development of therapies and methods of prevention for pregnancy complications. The vision for the center is ambitious. But, it is also clear that there is no better, and no more fitting place in the world to do this.
Dr. Nager Retires

On July 1st, 2020, Charles (“Charlie”) Nager, MD completed his term as the Samuel Yen Chair of the Department of Obstetrics, Gynecology & Reproductive Sciences. He transitioned to his next phase of professional life as a part-time reconstructive pelvic surgeon and educator. Charlie will continue to serve in the Division he helped to create, continue to teach residents and fellows at UC San Diego and continue to support the research mission of the Division of Female Pelvic Medicine and Reconstructive Surgery (FPMRS).

Charlie’s 6-year tenure was marked by dedicated service to all of the core missions: education, research and clinical care. He shepherded the change in the name of our department from Reproductive Medicine to Obstetrics, Gynecology and Reproductive Science, aligning with the more comprehensive contributions of our work. He also led the rapid expansion of the department, hiring almost two dozen new faculty and expanding the department’s services to five new clinic site locations across San Diego County.

A San Diego native, Charlie did his undergraduate studies at Stanford before coming to a young UC San Diego medical school. In those days, he recalled that you could rent a place on the beach in Del Mar and summer locally between years of medical school. The young UC San Diego school with the reputation for basic research appealed to him. Fortunately, he stayed on after completing medical school and then residency in 1986, joining the faculty of the UC San Diego School of Medicine.

After 10 years as an obstetrician, gynecologist and generalist in the department, including serving as the residency program director, Charlie spent a year in the UK, completing a urogynecology and reconstructive pelvic surgery fellowship program at St. George’s Hospital in London.

After returning from his fellowship in London, Charlie collaborated with Dr. Michael Albo in the Department of Urology to form the Women’s Pelvic Medical Center at UC San Diego, one of the first multi-disciplinary centers in the nation dedicated to the evaluation and treatment of female pelvic floor disorders. Two years later, in 2000, the Division of Female Pelvic Medicine and Reconstructive Surgery was formed at UC San Diego. The highly regarded division has resulted in 18 years of NIH-funded clinical trial networks and contributed many peer-reviewed papers on the evaluation and treatment of female pelvic floor disorders, including landmark studies in JAMA and the New England Journal of Medicine.

Charlie also made profound contributions to the teaching mission through UC San Diego. He developed and implemented a comprehensive strategy for a joint FPMRS fellowship in together with colleagues from Kaiser Permanente in California; this would set the model for later fellowship programs. The FPMRS fellowship program has trained or is training more than 20 fellows, most of whom continue to serve in academic settings around the nation. He is widely recognized as an inspired teacher and mentor, having instructed innumerable medical students, residents and fellows.

Colleagues attribute Dr. Nager’s reputation to his profound determination to help patients improve their quality of life. An experienced surgeon who has performed thousands of operations to address prolapse and incontinence, he provides a human empathy with surgical and technical depth. He remains a sought-after caregiver, having been selected as a physician of Exceptional Excellence by San Diego Magazine and the San Diego county Medical Society for an amazing 14 consecutive years. He has always excelled clinically, becoming UC San Diego Doctor of the Year in 2003 and was honored with the presidency of the preeminent profession society in his subspecialty, the American Urogynecologic Society.

Fortunately for his family, Charlie will have more free time. Fortunately for his patients, Dr. Nager will still be making regular appearances in the UC San Diego operating rooms and clinics. Fortunately for our department, his smile and encouragement will still be a big part of our department life. Thank you for all you have done, Charlie.


At the Frontier con’t


Brubaker Viewpoint Hits JAMA
COVID as a catalyst for change

Interim Chair Linda Brubaker’s commentary on life balance, particularly as it affects women physicians, was published in JAMA recently. Brubaker points out the cultural bias against women in the clinic and in academic medicine in general. Some of the bias is well-intentioned, or even unintentional, with the intent to protect women, and to respect their family choices. Yet all biases are ultimately negative from a perspective of impacting the advancement of women to higher positions in academic medicine. The coverage of the COVID epidemic has highlighted women on the front lines, and demonstrated their drive, competence and resilience. It has also changed the way we interact with each other. Life in a bubble has changed the world, increasing the implementation and utility of telemedicine, teaching and even interaction with family members. COVID has changed the way we live our lives in most of the mundane things we do, from grocery to dining take out, travel to home work out. COVID has taught us all about investing in life and life balance. Could it be just enough to put men and women on a more equal footing?

COVID and the Paternal Experience

Celebrating “our” pregnancy as COVID hit, we quickly understood what it was going to mean to receive perinatal care with epidemic-imposed restrictions. Safety protocols greatly impacted paternal involvement and support in the clinic. I was able to accompany my wife to the door of the Maternal Fetal Care clinic, but it was a no-go for accompanying her to any visits. I missed the first ultrasound images of our daughter and the happy tears that accompanied them. The diagnosis of gestational diabetes. The conversations about hypothyroidism in pregnancy. Sadly, there are no telemedicine options for husbands (even for department insiders, like me). It’s a strange experience that turns back the clock more than 50 years, to that time before even the senior members of the department began their practice. Women visited the obstetrician alone. Now, they can’t bring their mother, or even a friend, for support. This can be very isolating. Thankfully, UC San Diego faculty and staff have met this need, giving just a bit more to support expectant mothers in quarantine. Kudos to you all for this from a grateful father.  

Cheers to our Graduating Fellows:

Rebecca Adami, MD
Maternal Fetal Medicine
San Diego Perinatal, San Diego, CA

Allison Barrie, MD
Gynecologic Oncology
Virginia Mason, Seattle, WA

Alexander Berger, MD
Female Pelvic Medicine & Reconstructive Surgery
UCSF, San Francisco, CA

Chelsea Fox, MD
Reproductive Endocrinology & Infertility
Fertility Center of the Carolinas, Greenville, SC

We welcomed 5 new fellows on July 1st, who continue the tradition of excellence,

(left to right)

Kathryn Coakley, MD
Gynecologic Oncology

Alexa Medica, MD
Maternal Fetal Medicine

Selina Sandoval, MD
Family Planning

Nemi Shah, MD
Female Pelvic Medicine & Reconstructive Surgery
Season of Miracles
Season of Giving

Consider including the UC San Diego Department of Obstetrics, Gynecology and Reproductive Sciences in your annual giving

Contributions support our Education, Research and Clinical programs.

Endowed Chairs and Professorships
Fellowship Programs (priority need for our Family Planning Program)
Master Clinician Educator ($10,000/year)
Chair Research Support Fund (supports lab equipment and bridge funding)

To give, click this link or go to giveto.ucsd.edu and type “Obstetrics, Gynecology and Reproductive Science Support” under search for giving options.