

Obstetrics & Gynecology NEWSLETTER

SCIENCE FEATURE:

Pradeep Chaluvally-Raghavan, PhD, author of miRNA551b-3p

Activates an Oncostatin Signaling Module for the Progression of Triple-Negative Breast Cancer — published in the Cell Reports journal

This publication is based on a genetic misfire of microRNA551b due to genomic amplification in breast and ovarian cancer, which promotes the aggressiveness and metastasis of cancer cells. MicroRNAs appeared to regulate cellular functions through having many different targets and were thought to function mainly through down-regulating the levels of messenger RNAs. In this study, we found a novel mechanism that microRNAs can also upregulate the expression of crucial cancer genes like STAT3 directly by the mechanism of RNA activation.

NEW GRANTS: • Jennifer McIntosh, DO: National Heart, Lunch and Blood Institute—K08 HL150340—Novel role for placental endothelial mitochondria in preeclampsia

- Anna Palatnik, MD: CTSI Traditional Pilot Grant—Racial differences in DNA-methylation profiling of human placentas in pregnancies complicated by preeclampsia
- Abbey Kruper, PsyD; Erika Peterson, MD: CTSI Integrated Clinical and Research Ensemble—Cannabis Use During Pregnancy: The Drug Oversight – Public Health & Ethics (DOPE)
- Julianne Newcomer, MD; Sumana Koduri, MD; Emily
 Davidson, MD: CTSI Integrated Clinical and Research Ensemble
 on Fecal Incontinence
- Anna Palatnik, MD: Advancing a Healthier Wisconsin Endowment (AHW) Urgent Response to COVID-19 Proposal-Using Behavioral Nudges to Improve Preventive Health Behaviors that Limit COVID-19 Spread
- *Janet Rader, MD*: R21 CA241013—Defining HPV integration sites of unknown significance in invasive cervical cancer
- Meredith Cruz, MD: March of Dimes grant on Supportive Pregnancy Care

OBGYN HEROES

With the COVID-19 pandemic, it has pushed for rapid and collaborative responses.

In such a short time we have orchestrated large scale surgery and clinic adjustments, redirected patient care and redeployed work staff in various ways.

The teamwork has been wonderful. Spring and COVID-19 has brought us further apart in space but closer together as a department.

We are proud of our accomplishments and COVID19-directed modifications which are highlighted in this quarterly newsletter.

See our back pages for more information and Note from Chair

#Thanks HEALTH HER**©**ES







FEATURED CLINCAL TRIALS:

TOPS (Trial of Pessary in Singleton Pregnancies With a Short Cervix)—This multicenter, randomized clinical trial aims to determine whether using a pessary in singleton pregnancies, that are complicated by a short cervix (less than or equal to 20 mm) reduces the risk of premature birth. It is being conducted at 12 clinical centers across the country and the recruitment target is 850 pregnant women. Participants will be randomized to 1) Arabin pessary or 2) usual care as per by local hospital protocol. Pessary is a promising low-cost, non-surgical intervention that appears to be well-tolerated. The pessary will be placed by Dr. Palatnik at the MFCC. The primary outcome of the study is delivery or fetal death prior to 37 weeks 0 days gestational age.

WELCOME:



Jessica Smith, MD—Assistant Professor in Maternal-Fetal Medicine, joining us from University of Michigan



Kristine Graettinger, MD—Associate Professor in Obstetrics and Gynecology, joining us from University of Alabama in Tuscaloosa



Libby Woodard, CNM—Certified Nurse Midwife in Maternal-Fetal Medicine, Fetal Concerns Center



Shunping Wang, PhD, HCLD—IVF Clinical Embryology Lab Director in our Reproductive Medicine Center

IN THE NEWS:

- Meredith Cruz, MD and Garrett
 Fitzgerald, MD featured in TMJ4's
 Morning Blend news on "WorldClass Care in High Risk
 Pregnancies"
- Sunila Pradeep, PhD featured in Ovarian Cancer Research Alliance (OCRA)

REI is now on Instagram! Instagram/reifertility



CLINICAL UPDATES:

Our OBGYN Clinic is being renovated —Set to be updated by December 2020, we are obtaining new space that will include additional exam and consult rooms.

Accreta Program at Froedtert & The Medical College of Wisconsin—Partnering with many other non-obstetric subspecialists on campus, our MFM physicians have developed a Morbidly Adherent Placenta Spectrum (MAPS) team to make innovative, individualized care plans to reduce the health complications for mothers and newborns. Our goal is to serve as the regional leader in managing this serious diagnosis.

COVID-19 Virtual Visits—During this time of the "Stay at Home Order" here in Wisconsin, we have had to reschedule non-urgent visits and surgeries to a later date but still have been able to continue these types of visits virtually.

REI—Carol Eling, our NP, is offering reproductive nutrition consults. She has background as a diabetic educator and has researched the data to provide patients with the best advice on diet and supplements.







✓ MARK YOUR CALENDARS:

<u>Eleanor Delfs, MD Endowed Lectureship—</u> <u>moved to Fall 2020 pending covid status update</u>

Amy Steiner, MD, PhD—Professor and Chief, Division of Reproductive Endocrinology & Infertility, Duke University

"Biomarkers of Fertility"

<u>June 24, 2020: Resident and Fellow Research & Alumni</u> <u>Day—pending covid status update</u>

AnnaMarie Connolly, MD from University of North Carolina School of Medicine

<u>June 26, 2020: Resident and Fellow Graduation—</u> <u>pending covid status update</u>

Pending covid status update 8 Resident Interns start,

1 Maternal-Fetal Medicine Fellow starts, and our new

Gynecologic Oncologist Fellow starts

22nd Annual Women's Health Conference—pending covid status update

Harley Davidson Museum

Register on our website

Ray of Hope Run/Walk—moved to Fall 2020 pending covid status update

Hoyt Park, Wauwatosa

Proceeds and donations go directly to our Women's Health Research Program (WHRP) and our researchers (Sunila Pradeep, PhD) in ovarian cancer.

Stay in touch and follow us! Have something to share? Send it our way!

DEPARTMENT NEWS:

- Professor, received the 2020
 President's Diversity and Inclusion
 Award for her exemplary record of
 achievements and contributions that
 advance equality, diversity, inclusion
 (EDI) in MCW's mission area:
 education, research, clinical care, and
 community engagement and her
 significant scope of contributions
 across MCW.
- Candice Lovell, MD— Assistant
 Clinical Professor of Obstetrics and
 Gynecology, has been named a
 Special Honoree in Medicine by the
 Milwaukee Times Weekly
 Newspaper's Black Excellence
 Awards.
- Anna Palatnik, MD, Michael Lund, MD and Raj Narayan, MD—elected into the Faculty Committee starting July, 2020.
- Janet Rader, MD—Recognized and honored by her patient for National Doctors' Day on March 30.

ALUMNI CORNER:

We'd like to hear from you! Please send us your updates

to:obgynresidency@mcw.edu







NEWSLETTER: SPRING 2020

QUALITY:

We continue to expand our patient safety bundles and simulation program including hypertensive emergency most recently. We have also taken up leadership roles within the Wisconsin Perinatal Quality Collaborative which was recently successful in its application to become an 'AIM state' (Alliance on Innovation for Maternal Health). Our goal for these bundles is to improve patient safety in our institution but also to share our progress and strategies with others across the state.

EPIC DEPARTMENT IMPROVEMENTS:

In an order to improve faculty well-being, the department is sponsoring an internal initiative to improve faculty members' facility with our electronic medical record system, EPIC. In order to do this, we have created an EPIC Peer Support Team. Each faculty member will be meeting with one of the department's faculty members, Dr. Emily Davidson (Urogynecology) or Dr. Garrett Fitzgerald (MFM). Drs. Davidson and Fitzgerald have each completed EPIC's "Physician Builder" training, and Dr. Davidson currently serves on the Froedtert Physician Builder team. Despite the COVID-19 pandemic, this EPIC Peer Support Team is using technology to be able to offer these one-on-one sessions with faculty members remotely. These personalized sessions are designed to help end-users improve their EPIC day-to-day experience, no matter their baseline comfort and ease of use with the system.

RESIDENT NEWS:

Our 4th year resident, **Talia Coney**, **MD**, is the District VI Junior Fellow Chair of American College of Obstetricians and Gynecologists - ACOG.

STAFF HIGHLIGHT:

Kelly Morey—Residency Coordinator, celebrated her 25 years of services here at the Medical College of Wisconsin.

Retired Professor, Adolf Stafl, MD, passed away on April 9, 2020.

Dr. Stafl was a Professor in OB/GYN from 2/1/1969 to 6/30/2000. He was the president of ASCCP 1982-1984.

He developed cervicography – a diagnostic



medical procedure that allows nonphysicians to take pictures of the cervix and submit them to a physician for interpretation in 1981. He received the

Milwaukee Academy of Medicine - Distinguished Achievement Award 2004 to honor his development and promulgation of colposcopy.

Ray of Hope has joined us in funding our ovarian cancer research. They are a PHILANTHROPY: non-profit organization established here in Milwaukee by a group of family and friends who has been touched by ovarian cancer.

Proceeds and donations go directly to our Women's Health Research Program (WHRP) and our researchers (Sunila Pradeep, PhD) in ovarian cancer.

Maternal-Fetal Medicine Research—Our physicians who specialize in high-risk pregnancies collaborate with researchers and academic medical centers around the country to advance the understanding and treatment of preeclampsia, preterm birth, as well as other complicated pregnancies. Their patients – and the entire region – are the direct beneficiaries of on-going research.

To donate, visit our website at https://obgyn.mcw.edu/about/donate/ or call (414) 955-5827.







NEWSLETTER: SPRING 2020

PUBLICATIONS:

tensen R, Graybill W, Mirza MR, McCormick C, Lorusso Egede LE. Maternal racial and ethnic disparities in D, Hoskins P, Freyer G, Baumann K, Jardon K, Redondo glycemic threshold for pharmacotherapy initiation for A, Moore RG, Vulsteke C, O'Cearbhaill RE, Lund B, gestational diabetes. J Matern Fetal Neonatal Med. Backes F, Barretina-Ginesta P, Haggerty AF, Rubio- 2020 Pérez MJ, Shahin MS, Mangili G, Bradley WH, Bruchim 10.1080/14767058.2020.1711728. [Epub ahead of I, Sun K, Malinowska IA, Li Y, Gupta D, Monk BJ; print] PMID:31902254 PRIMA/ENGOT-OV26/GOG-3012 Investigators. raparib in Patients with Newly Diagnosed Advanced Ovarian Cancer. N Engl J Med. 2019 Dec 19;381 (25):2391-2402. doi: 10.1056/NEJMoa1910962. Epub Race and Ethnicity with Adverse Pregnancy 2019 Sep 28.

Swearingen, C., Colvin, Z. A., & Leuthner, S. R. (2020). 3400995. [Epub ahead of print] PMID: 31858501 Nonimmune Hydrops Fetalis. Clinics in Perinatology, 47 (1), 105-121. doi: 10.1016/j.clp.2019.10.001

Johnson C, Davitt C, Harrison R, Cruz M. Expectant venous extracorporeal membrane oxygenation. J Management of a Pregnancy with Complete Hydatidi- Obstet Gynaecol Res. 2019 Dec;45(12):2452-2455. form Mole and Coexistent Normal Fetus. Case Rep Ob- doi: 10.1111/jog.14110. Epub 2019 Sep 4. PMID: stet Gynecol. 2019 Oct. doi: 10.1155/2019/8737080.

Kristine Zanotti, Sahana Somasegar, Monica Webb Palatnik A, De Cicco S, Zhang L, Simpson P, Hooper, and Elizabeth Hopp. Improving Value-Based Hibbard J, Egede LE. The Association between Care Education in a Fellowship by Incorporating ACGME Advanced Maternal Age and Diagnosis of Small for Competencies. Journal of Graduate Medical Education Gestational Age. Am J Perinatol. 2020 Jan;37(1):37-2019 11:6, 668-673

Das D, Davidson ERW, Walters M, Farrell RM, Ferrando CA. Patient-Centered Outcomes After Modified Vesti- Palatnik A, Moosreiner A, Olivier-Van Stichelen S. bulectomy. Obstet Gynecol. 2020 Jan;135(1):113-121. Consumption of Non-Nutritive Sweeteners in doi: 10.1097/AOG.0000000000003596.

Tvina A, Thomsen A, Palatnik A. Prenatal and postnatal phenotype of a pathologic variant in the ATP6AP1 gene. Eur J Med Genet. 2020 Feb 11:103881. doi: 10.1016/j.ejmg.2020.103881. [Epub ahead of print] Mai PL, PMID:32058063

Walker RJ, Garacci E, Palatnik A, Ozieh MN, Egede LE. The Longitudinal Influence of Social Determinants of Health on Glycemic Control in Elderly Adults With Diabetes.Diabetes Care. 2020 Feb 6. pii: dc191586. doi: 10.2337/dc19-1586. [Epub print] ahead of PMID:32029639

González-Martín A, Pothuri B, Vergote I, DePont Chris- Palatnik A, Harrison RK, Walker RJ, Thakkar MY, 13:1-8. Jan doi:

> Palatnik A, Garacci E, Walker RJ, Ozieh MN, Williams JS, Egede LE. The Association of Paternal Outcomes in a Contemporary U.S. Cohort. Am J Perinatol. 2019 Dec 13. doi: 10.1055/s-0039-

> Stiff A, Harrison R, Palatnik A. Case report of massive hemoptysis in pregnancy requiring veno-31486147

> 43. doi: 10.1055/s-0039-1694775. Epub 2019 Aug 20.PMID: 31430823

> Pregnancy. Am J Obstet Gynecol. 2020 Apr 7. pii: S0002-9378(20)30385-9. doi: 10.1016/ j.ajog.2020.03.034. [Epub ahead print] PMID:32275895

> Miller A. Gail MH, Skates S. K, Sherman ME, Ioffe OB, Rodriguez G, Cohn DE, Boggess J, Rutherford T, Kauff ND, Rader JS. Phillips KA, DiSilvestro PA, **Olawaive** AB. Ridgway MR, Greene MH, Piedmonte Walker JL. Risk-Reducing Salpingo-Oophorectomy and Breast Cancer Risk Reduction in the Gynecologic Oncology Group Protocol-0199 (GOG-0199). JNCI Cancer Spectr 2020;4:1







PUBLICATIONS CONT'D:

Parashar D, Geethadevi A, Aure MR, Mishra J, George J, Chen C, Mishra MK, Tahiri A, Zhao W, Nair B, Lu Y, Mangala LS, Rodriguez-Aguayo C, Lopez-Berestein G, Camara AKS, Liang M, Rader JS, Ramchandran R, You M, Sood AK, Kristensen VN, Mills GB, Pradeep S, Chaluvally-Raghavan P. miRNA551b-3p Activates an Oncostatin Signaling Module for the Progression of Triple-Negative Breast Cancer. Cell Rp 2019;29:4389-4406.

ICGC/TCGA Pan-Cancer Analysis of Whole Genomes Consortium. Pan-cancer analysis of whole genomes. Nature 2020;578:82-93. (**Rader JS.**)

Chen C. Gupta P, Parashar D, Nair GG, George J, Geethadevi A, Wang W, Tsaih S-W, Bradley W, Ramchandran R, Rader JS, Chaluvally-Raghavan P, Pradeep S. ERBB3-induced Furin Promotes the Progression and Metastasis of Ovarian Cancer via the IGF1R/STAT3 Signaling Axis. Oncogene 2020; Feb 6 online ahead of print

COVID-19: From the Chair



I want to thank all members of OBGYN for their amazing, rapid and collaborative response to the pandemic this past month. In such a short time we have orchestrated large scale surgery and clinic adjustments, redirected patient care and redeployed work staff in various ways. The teamwork has been wonderful. Spring and COVID-19 has brought us closer together as a department but much further apart in space.

We have been working to ensure our clinical, teaching and research missions continue. To date we have implemented a surgical priority scheduling system and curtailed all less

urgent cases. We added video and telephone visits when possible to continue safe patient care. Our laboratory-based programs in IVF and research are on hold and have developed new creative strategies to continue their important work. Providers are still delivering care at full capacity in the Birth Center and Cancer Center Day Hospital, admixed with new PPE protocols. WFH – Working from home has become the new norm for many.

We are back and running Wednesday am conferences, in addition to, the biweekly Wednesday 4 pm research meetings. We moved our third-year medical student OB/GYN clerkship to online learning. We completed this year's R2 evidence-based literature presentations and many new educational opportunities for all via Webex. Our internal EPIC Peer Support team is now offering the one-on-one sessions through Skype.

I urge you to keep updated but not overwhelmed with data and continue to help departmental members, family and friends. This pandemic has stressed us in ways we never thought possible and the emotional and financial toll will persist for some time. These experiences will provide us with new knowledge to improve our approach to patient care, educate our learners and stimulate new research ideas. Many have also taken up journaling to share with grandchildren and young friends when they ask how you fought the pandemic of 2020 and saved lives.

We are proud of our accomplishments and COVID-19-directed modifications which are highlighted in this quarterly newsletter.

Janet S. Rader, MD Jack A. and Elaine D. Klieger Professor and Chair







COVID-19 cont'd:

Medical Student Education:

Due to the COVID-19 pandemic we have had to move our third year medical student OB/GYN clerkship to online learning. During this time our residents and faculty have all pulled together to provide the students with over 40 hours of online lectures, case studies and small group discussions. We are looking forward to getting our medical students back into the hospitals and clinics as soon as possible but we have been working hard to make sure that all of our medical students become knowledgeable in field of obstetrics and gynecology through our remote curriculum.

Resident Education:

"The faculty have been amazing and are volunteering so much of their time to video lectures and web conferences which is really wonderful. I never could have imagined something like this during residency but they have exceeded my expectations." - OBGYN Resident

The COVID-19 crisis has presented us with many challenges; not only in the way we practice medicine, but also in the way we provide medical education. Our team rose to the challenge and jumped at the opportunity to restructure our education to accommodate social distancing. We were able to quickly able to convert our face-to-face didactics into virtual meetings that still allowed participate of a large group. We were also able to use this unique time where we are spending less time in the hospital to recruit educators to give lectures and facilitate learning outside of our normal didactic times. We are working hard to keep our learners engaged, and are also focused on their wellness. Distance is emotionally taxing, and our residents are not immune to this. We have resident house mentors checking in with the residents as well as town hall meetings with our departmental psychologist. There will also be socially distant yoga coming up!

Our education team is devoted to providing an exceptional education, no matter the barriers. We are open to change and will thrive through this time.

Team Meetings and Mental Health:

Abbey Kruper, PsyD, has extended her expertise to our OBGYN team. She has been providing "OBGYN Town Halls" which are informal virtual meetings to connect with one another and allow for community-building and well-being topics.







