

# Centerpiece

## WELCOME NOTE

*This is an inaugural issue of the Centerpiece - the newsletter documenting the life of the Center for Reproductive Health Sciences. Read along and find out more about our recent successes, stories and breakthroughs; draw inspiration for your own endeavors, and most importantly - stay connected.*

Issue 1

March 2017

Quarterly Newsletter

## A SUCCESS STORY: NANDINI RAGHURAMAN, MD, MS

*Nandini Raghuraman, MD, MS*, clinical fellow in maternal and fetal medicine in the Department of Obstetrics and Gynecology, and a member of the England Lab, has received the Thrasher Research Fund's Early Career Award.

Dr. Raghuraman's study entitled "*Oxygen for category II intrauterine fetal resuscitation: a randomized, noninferiority trial*" aims to test the hypothesis that room air is equally efficacious and safer than O<sub>2</sub> for intrauterine resuscitation.



Nandini Raghuraman, MD

"Every year in the US, approximately 600,000 to 700,000 neonates are exposed to O<sub>2</sub> via intrapartum maternal hyperoxygenation." This trial could minimize potential risks to the neonates by limiting liberal oxygen administration in labor.



Anna Boudoures

## CONGRATULATIONS!

*Anna Boudoures* from the Moley Lab has successfully defended her PhD thesis entitled "*Mitochondrial damage accumulation in oocytes - a potential link between maternal obesity and increased cardiometabolic disease risk in offspring*".

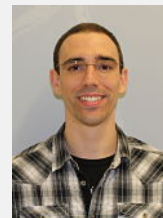
## NEW FACES IN THE HALLWAYS



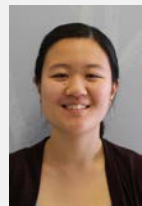
Dr. Eryk Andreas

*Dr. Eryk Andreas* earned his BSc and MSc in Animal Production and Technology/Animal Breeding and Genetics from Bogor Agricultural University, Bogor, Indonesia. In 2016 he completed his doctoral degree at the Institute of Animal Science, University of Bonn, Bonn, Germany. His dissertation focused on "Functional studies of microRNA 17-92 cluster members in bovine granulosa cells and oocyte maturation". He joined the Moley Lab as a Postdoctoral Research Associate.

*Jeremie Ferey, PhD* earned his BS in Biology and Human Nutrition, Foods and Exercise from Virginia Tech, Blacksburg, VA. He completed his PhD degree in Bioenergetics and Exercise Science at East Carolina University, Greenville, NC, in 2016 with a dissertation entitled "Elucidation on the mechanism of CaMKK $\alpha$  as a pro-growth kinase in mouse skeletal muscle". Jeremie is a Postdoctoral Research Associate in the Moley Lab.



Jeremie Ferey, PhD



Rina Matsuda

*Rina Matsuda* joined the Mysorekar Lab as a Research Technician I. Rina graduated from the University of Pittsburgh, Pittsburgh, PA. She is currently preparing for her PhD studies at University of Pennsylvania and gaining practical experience in a laboratory environment.



Jeanne Beasley

Jeanne Beasley joined the Center's administration team in February 2017. Jeanne has an extensive background in customer services and support. She is coming from MetLife where she worked as a Client Service Analyst for several years.



SJ Yun



Qiqi Shi

The England Lab has welcomed two undergraduate students - *Naiqi (Qiqi) Shi* and *Seok-Joong (SJ) Yun*.

## FIVE FUN FACTS YOU DIDN'T KNOW ABOUT:

### Jacques Halabi

- Favorite place to visit one day: Alaska
- Favorite music: Pink Floyd
- Favorite food: Lebanese cracked oat with meat
- Favorite holiday: Anytime I can go for a skiing trip
- Favorite guilty pleasure: Bacon burgers

## NEW PUBLICATIONS AND PRESENTATIONS (SINCE DEC 2016)

### FUH LAB:

1. **Recent Advances in Understanding, Diagnosing, and Treating Ovarian Cancer.** Mills K, Fuh K. F1000Res. 2017 Jan 27;6:84. doi: 10.12688/f1000research.9977.1. eCollection 2017 Jan 27. Review.

### KOMMAGANI LAB:

1. **A bioluminescence reporter mouse that monitors expression of constitutively active B-catenin.** Szwarc MM, Kommagani R, Peavey MC, Hai L, Lonard DM, Lydon JP. PLoS One. 2017 Mar 2;12(3):e0173014. doi: 10.1371/journal.pone.0173014. eCollection 2017 Mar 2.

### MOLEY LAB:

1. **Obesity and female infertility: potential mediators of obesity's impact.** Broughton DE, Moley KH. Fertil Steril. 2017 Mar 11. pii: S0015-0282(17)30060-2. doi: 10.1016/j.fertnstert.2017.01.017.
2. **Reduced islet function contributes to impaired glucose homeostasis in fructose-fed mice.** Asghar ZA, Cusumano A, Yan Z, Remedi MS, Moley KH. Am J Physiol Endocrinol Metab. 2017 Feb 1;312(2):E109-E116. doi: 10.1152/ajpendo.00279.2016. Epub 2016 Dec 27.
3. **Transmission of Metabolic Dysfunction Across Generations.** Jaeger K, Saben JL, Moley KH. Physiology (Bethesda). 2017 Jan;32(1):51-59. Review.
4. **Zika virus infection damages the testes in mice.** Govero J, Esakky P, Scheaffer SM, Fernandez E, Drury A, Platt DJ, Gorman MJ, Richner JM, Caine EA, Salazar V, Moley KH, Diamond MS. Nature. 2016 Dec 15;540(7633):438-442.

### MYSOREKAR LAB:

1. **Autophagy regulation of physiological and pathological processes in the female reproductive tract.** Cao B, Camden AJ, Parnell LA, Mysorekar IU. Am J Reprod Immunol. 2017 Feb 13. doi: 10.1111/aji.12650.
2. **Urothelial Generation and Regeneration in Development, Injury, and Cancer.** Wang C, Ross WT, Mysorekar IU. Dev Dyn. 2017 Jan 20. doi: 10.1002/dvdy.24487. [Epub ahead of print] Review.
3. **ATG16L1 governs placental infection risk and preterm birth in mice and women.** Cao B, Macones C, Mysorekar IU. JCI Insight. 2016 Dec 22;1(21):e86654. doi: 10.1172/jci.insight.86654.
4. **Neutralizing human antibodies prevent Zika virus replication and fetal disease in mice.** Sapparapu G, Fernandez E, Kose N, Bin Cao, Fox JM, Bombardi RG, Zhao H, Nelson CA, Bryan AL, Barnes T, Davidson E, Mysorekar IU, Fremont DH, Doranz BJ, Diamond MS, Crowe JE. Nature. 2016 Dec 15;540(7633):443-447. doi: 10.1038/nature20564.

### PRESENTATIONS:

1. **The testicular explant system is a translational tool to determine germ cell toxicity.** Esakky, P. Society of Toxicology 56<sup>th</sup> Annual Meeting, Baltimore, MD. March 2017
2. **Growth Regulation by Estrogen in Breast Cancer 1 (GREB1) Function in Uterine Physiology.** Kommagani, R. Reproductive Biology and Comparative Endocrinology 35th Annual Meeting, Hyderabad, India. February 2017
3. **Sperm-specific ion channels essential for male fertility.** Santi, C. School of Medicine. Universidad de la República. Montevideo, Uruguay. December 2016.
4. **The SLO K channel family.** Santi, C. Instituto de Biotecnología. UNAM. Cuernavaca. Mexico. March 2017.

### Society of Gynecologic Oncology. National Harbor, MD. March 2017:

1. **Functional genomic siRNA screen for ovarian cancer attachment and invasion.** Fuh, K. Poster.
2. **P5RHH-siAXL nanoparticle is a novel targeted therapy in metastatic gynecologic serous cancers.** Mills, K. Poster.

### Society for Reproductive Investigation, Orlando, FL. March 2017:

1. **Intrinsic circadian rhythms of reproductive tissues over pregnancy.** Martin-Fairey, C. Poster.
2. **The influence of chronodisruption on risk of preterm birth.** England, S.
3. **Zika GO: Tracking ZIKV in the placenta.** Mysorekar, I.
4. **The obesity epidemic: Could it be an oocyte issue?** Moley, K.
5. **Zika virus infection damages the testes in mice.** Halabi, J.
6. **Vitamin D Does Not Enhance Endometrial Stromal Cell Decidualization in Immortalized Human Endometrial Stromal Cells.** Jaeger, K; Oestreich, A; Schulte, M; Cusumano, A; Moley K.