

The Obstetrics, Gynecology and Reproductive Biology Review

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Message from the Chair



*Richard M. Leach, M.D., FACOG, FACS
Professor and Chair
Department of Obstetrics, Gynecology and Reproductive Biology*

This summer brought us new colleagues, students and discoveries all bringing us great pride and satisfaction. Drs. Johnson and Chandler joined the department bringing their novel programs in Women's Health Research. We have many students seeking Obstetrics and Gynecology as a career this year speaking to their tremendous clerkship performance and experience. We are grateful to each of our dedicated faculty who shepherded our students to their career choice. Our researchers traveled across the country and globe sharing new discoveries and mentoring new graduate students. Our Departmental faculty, students, staff and families converged on Portland for fellowship and celebration of a wonderful Michigan summer.

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Jennifer E. Johnson, Ph.D.
Associate Professor



Dr. Johnson joins us from Brown University, and is the first member of the MSU's new Public Health Research Group in Flint. Dr. Johnson is a clinical psychologist who conducts NIH-funded randomized trials of effectiveness, cost-effectiveness, and implementation of mental health and substance use interventions for high-risk women (including perinatal women) and justice-involved populations (such as prisoners and jail detainees). She has been Principal Investigator of 7 NIH awards, with overall total costs of more than \$7.5 million.

Ronald Chandler, Ph.D.
Assistant Professor

Dr. Ron Chandler joined the Department of Obstetrics and Gynecology in Grand Rapids in August 2015 after pursuing postdoctoral training in the laboratory of Dr. Terry Magnuson at the University of North Carolina Chapel Hill. Ron has long standing interests in the role of chromatin remodeling and epigenetics in development and cancer. His long-term goals are to elucidate the molecular and cellular events required to maintain female reproductive tract homeostasis and to determine how these processes go awry in inflammation-associated cancers. Dr. Chandler received his B.S. in Biology at Tennessee Technological University, Cookeville, Tennessee, and his Ph.D. in Molecular Physiology and Biophysics from Vanderbilt University, Nashville, Tennessee.





The Grand Rapids research team is supporting the Michigan Ovarian Cancer Alliance (MIOCA) by auctioning off a group lab tour for the alliance's annual fundraiser at Millennium Park on September 27. The walk/run/bike event — ***Shake Your Teal Feathers*** — seeks to raise awareness and support for ovarian cancer. For more information about MIOCA, visit www.mioca.org.



Cristian Meghea, Ph.D. Assistant Professor

Responding to the National Institute of Health's plan to "take science where the problems are [and] address global health disparities through the development of new tools to apply evidence-based knowledge", Dr. Cristian Meghea



Cluj-Napoca, Romania

began field research in Romania this summer designed to address the country's high levels of smoking during pregnancy and preconception. His research focuses on couples beginning their reproductive life and attempts to reduce smoking during and after pregnancy by using an adapted and enhanced intervention founded on the Motivation and Problem Solving (MAPS) approach which has proven effective in the U.S. The proposed work is anticipated to advance understanding of pregnancy and postnatal smoking cessation interventions.

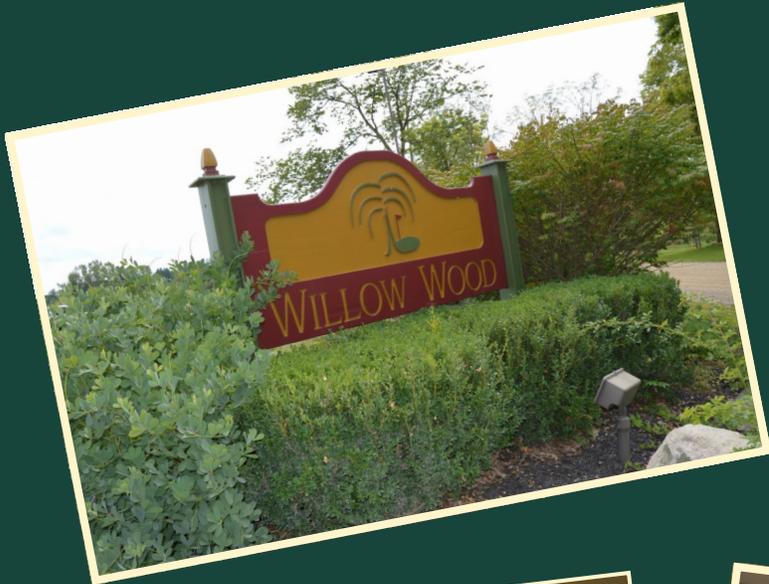
After finalizing a Memorandum of Understanding between MSU's College of Human Medicine and Seoul National University's College of Medicine late last year, the MSU Department of OB/GYN hosted its first visiting scholar: SuBeen Hong. Seoul National University Hospital (SNUH), with its renowned international medical training program, selects approximately 20 outstanding medical doctors and offers them international training opportunities every year, including financial support for one month of training abroad. SuBeen, in her third year of residency in the SNUH Department of Obstetrics & Gynecology, was selected as an awardee of the international medical training program this year after being referred to the lab of Dr. JaeWook Jeong in Grand Rapids by Dr. Chang Suk Suh, Chairman of the Department of OB/GYN at SNUH. While SuBeen was in training, she learned about the Jeong lab's molecular biology research and animal modeling techniques for biomedical research. She also shadowed Dr. Bitner, an OB/GYN medical doctor from Spectrum Health during her visit.



SuBeen Hong, Visiting Scholar from Seoul National University Hospital

Department Barbeque!

With summer winding down, it was a great time for the department to gather at Willow Wood Golf Club in Portland to welcome new staff and to reconnect. Faculty and staff from the clinic, East Lansing, and Grand Rapids had fun catching up and painting pottery.



Justin DeKuiper, Research Technologist from the Teixeira lab.



Department Chair, Richard Leach, MD, and Joel Maurer, MD, from MSU Women's HealthCare.



Left to Right: Jodi Baker, Judy Allen, Tracy Lee, and Ann Moeller.



Left to Right: Jae Wook Jeong, Tae Hoon Kim, Hong Im Kim, Eun Hee Cho, Yiyoung Yu, and Jung Yoon Yoo.

Featured Staff Members

Bethany Brown, DNP, CNM, WHNP, EFM-C Women's Health Nurse Practitioner

MSU HealthTeam would like to welcome Bethany Brown to her role as Certified Nurse-Midwife / Women's Health Nurse Practitioner in the MSU Women's HealthCare practice. Dr. Brown has been a Doctor of Nursing Practice since December 2014, Certified Nurse-Midwife & WHNP for eight years, and a Registered Nurse for 11 years. Her work involves all areas of women's health, including obstetrics, gynecology, contraceptive and sexual health.



Dr. Brown uses patient-centered care to help improve patient health and quality of life. Dr. Brown completed her doctorate of nursing practice in 2014 with her research focus on improving outcomes in obstetrical triage through nurse-midwives, prioritization tools, and standardization of care.

Dr. Brown is currently completing her training in sexology, where she plans to certify through ASSECT to be a certified sexual health counselor and educator. She gladly accepts patients with sexual health concerns and from the LGBT-QIA community.



Plavita Sharma, M.S.
Research Technologist

Plavita joined the lab of Dr. Jose Teixeira, Principal Investigator with the OB/GYN research team based in Grand Rapids, in July. She earned an M.S. in Cell and Molecular Biology from Grand Valley State University in 2013 and a B.S. in Biotechnology and Genetic Engineering in 2010. As a research technologist Plavita will be responsible for conducting research experiments focusing on molecular pathways and interactions in human disease.

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PUBLICATIONS

- ◆ Baumann C, **Olson M**, **Wang K**, **Fazleabas AT** and De La Fuentes R (2015). Arginine Methyltransferases Mediate an Epigenetic Ovarian Response to Endometriosis in the Baboon Model. *Reproduction* (E-Pub – July 29, 2015). PMID: 26224097
- ◆ **Fazleabas AT**, Braundmeier A and **Parkin K** (2015). Endometriosis-Induced Changes in Regulatory T- Cell Location - A Model for Permanent Contraception? *Contraception* (E-Pub – July 15, 2015). PMID: 26086573
- ◆ **Joshi NR**, **Su RW**, Chandramouli GVR, **Jeong JW**, Young SL, Lessey BA and **Fazleabas AT** (2015). Decreased Expression of microRNA-451 (miR-451) Contributes to the Pathophysiology of Endometriosis in Both Women and Baboons. *Hum Reprod* (In Press).
- ◆ **Joshi NJ**, Afshar Y, **Jeong JW**, Young SL, Lessey BA and **Fazleabas AT** (2015). Decreased FK506 Binding Protein 52 (FKBP52) Contributes to Progesterone Resistance and Decreased Fertility Associated with Endometriosis. *Biol Reprod* (Submitted)
- ◆ **Kim TH**, **Yoo JY**, Wang Z, Lydon JP, Khatri S, Hawkins SM, **Leach RE**, **Fazleabas AT**, Young SL, Lessey BA, Ku BJ, and **Jeong JW** (2015). ARID1a is essential for embryo implantation and decidualization. *Plos Genetics* (Accepted pending revisions).
- ◆ **Meghea CI**, You Z, **Raffo JE**, **Leach RE** and **Roman LA**. Statewide Medicaid Enhanced Prenatal Care Programs and Infant Mortality. 2015. *Pediatrics*. 2015 Aug; 136(2): 334-42. PubMed PMID: 26148955.
- ◆ **Parkin KL**, Giuliani E, Hapangama DK, and **Fazleabas AT** (2015). Characterization of Uterine NK Cells in a Baboon Model of Endometriosis. *Am J. Reprod Immunol* (Submitted)

PRESENTATIONS

- ◆ **Meghea CI**. Oral presentation of research at the International Health Economics Association Congress in Milan, Italy. Jul 2015.

FUNDED GRANTS

- ◆ **Fazleabas AT**. Principal Investigator – NICHD RO1 HD 083273 (01-05). “Role of MicroRNA in the Pathophysiology of Endometriosis”, Dec 2015 – Nov 2020.

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