Division of Reproductive Science Research

The Reproductive Science Research Division in the Department of Obstetrics and Gynecology was established in 2009 and consists of five full-time research faculty members and 11 faculty members with joint appointment with other divisions in the department.

Members in the Research Division conducted diverse areas of basic reproductive research:

Dr. Andrews: Infectious diseases in pregnancy.

Dr. Borowski: Maternal cholesterol and outcomes of pregnancy and genetic variation in IUGR.

Dr. Bradley: Female urinary incontinence and other pelvic floor disorders.

Dr. Dai: Novel prognostic indicator integrating genome sequencing data and tumor evolution history for prediction of endometrial cancer outcome.

Dr. Goodheart: The role of Lef-1 in endometrial gland formation and cancer. Angiogenic markers in ovarian cancer.

Dr. Hunter: Non-dietary treatment of mPKU; the vaccine development against GBS; the mechanism and potential treatment of pre-eclampsia.

Dr. Korovkina: Large conductance Ca$^{2+}$ and voltage activated K$^+$ channels regulate proliferation in human breast carcinoma cells.

Dr. Leslie: The molecular biology of estrogen and progesterone receptors in the treatment of endometrial cancer, and identify molecular targets linked to response in clinical trials.

Dr. Meng: New prognosis biomarkers and potential therapeutic targets in gynecology; restore progesterone receptor gene expression to improve the efficacy of hormone therapy in endometrial cancer; synthetic lethal studies in gynecology.

Dr. D. Santillan: Development of a GBS vaccine, Understanding the role of Placental Hematopoietic Stem Cells, Developing a Maternal-Fetal Tissue Bank, Immune Modulators of Preeclampsia.

Dr. M. Santillan: Investigating the role of immunology in the pathogenesis of preeclampsia, determining molecular mechanisms of vascular function changes in mice and humans throughout pregnancy, development of a prospectively collected Maternal Fetal Tissue Bank and Clinical Database.

Dr. Sparks: Gamete biology; in vitro fertilization; embryo culture; and gamete/embryo cryopreservation.

Dr. Stegmann: Fertility preservation in cancer patients.

Dr. Stockdale: Vulvar and lower genital tract disease.

Dr. Williamson: Development of human ES and iPS cells with genetic
mutations related to muscular dystrophies.

Dr. Yang: Development of mouse iPS cells; the mechanism and potential treatment of salt-sensitive hypertension; IGF-1 signaling regulation by Nedd4 during normal and malignant growth.

Baoli Yang, MD, PhD  
Division Director, Reproductive Science Research