



The University of Vermont
LARNER COLLEGE OF MEDICINE

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE SCIENCE

FACULTY INTERESTS

Ira M. Bernstein, M.D. Professor and *John Van Sicklen Maeck Chair*

Dr. Bernstein's interest is in whole body physiology, specifically, understanding the predisposing conditions that contribute to complications of pregnancy including fetal growth impairment, preeclampsia and thrombosis. This has included examination of maternal blood volume, vascular tone and compliance, regional blood flow, biochemical analytes as well as intermediary metabolism. He is also interested in normal and abnormal growth characteristics as defined by ultrasound including fetal body composition and fetal growth modeling and the influence of maternal cigarette smoking on these growth variables.

Charles Ashley, M.D. Assistant Professor, *Gynecologic Oncology*

Charles (Charlie) Ashley, is re-joining us at UVM after an 8-year absence following completion of his medical school at the Larner College of Medicine. During this absence, he completed his OB/GYN residency at the University of Wisconsin – Madison and his Gynecologic Oncology fellowship at Memorial Sloan Kettering Cancer Center on the Upper East Side of Manhattan. In addition to the surgical and chemotherapeutic management of gynecologic malignancy, Charlie has research interests in radical gynecologic surgery, gynecologic cancer genetics and circulating tumor DNA.

Sarah Bell, M.D. *Clinical Assistant Professor*

Dr. Bell is a general OB/GYN with specific interests in medical education, international women's health, and pre-invasive disease. She loves to engage medical students and residents in all aspects of patient care.

Misty Blanchette Porter, M.D. *Associate Professor, and Vice Chair of Education and Faculty Affairs*

Dr. Blanchette Porter's primary interest is a Reproductive Endocrinologist and Infertility subspecialist with a special interest in gynecologic ultrasound and gynecologic surgery. Dr. Blanchette Porter has a particular interest in postgraduate, fellow, resident, and medical student education, and teaching both general knowledge in Ob/Gyn, and skill building in general gyn, and minimally invasive robotic surgery. Her research interests focus on gynecologic ultrasound, and she is a member of the International Ovarian Tumor Analysis Group, and a fellow in the American Institute of Ultrasound in Medicine.

Elizabeth Bonney, M.D., M.P.H. *Professor and Division Director for Reproductive Science Research*

The overall goal of the Bonney laboratory is to determine if pregnancy changes the rules by which the immune system is regulated. The recent focus of her laboratory has been the regulation of T cell homeostasis during pregnancy and the particular role of cytokines such as interleukin 15, 7 and 10 and molecules such as Fas and Programmed Death 1. Further, she is interested in the role T cell homeostasis plays in resistance to preterm birth, persistent viral (lymphocytic choriomeningitis virus) infection in the placenta, the vascular biology of pregnancy, and the post-partum susceptibility to autoimmune disease. In addition, she seeks to determine the role of T cell homeostasis in adverse pregnancy in humans. With members of the Vermont Center for Immunology, she is also studying neonatal immunity to influenza. Her laboratory is adept with the use of animal models and basic techniques in immunology. Dr. Bonney has served as an ad hoc member on both the Human Embryology and the Cellular and Molecular Integrative Reproduction Study Sections and was a standing member of the Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions Study Section. Dr. Bonney has participated in the training of several graduate students, residents, fellows and junior faculty. Her clinical interests include vulvar pain syndromes, vaginitis and sexually transmitted infections. She currently serves on the Infectious Disease Practice Committee and the University of Vermont Larner College of Medicine Dean's Advisory Committee on Diversity and Inclusion.

Stephen Brown, M.D. *Associate Professor*

Dr. Brown's current research is focused on understanding epigenetic changes that occur during maternal vascular adaptation to pregnancy and how those changes persist during the postpartum period. Other projects in his lab have looked at epigenetic changes in blastocyst stage embryos that are subjected to in-vitro culture and at methylation abnormalities in a mouse model of pregnancy failure. Past projects have focused on the role of the ZIC2 gene in human brain malformation.

Lucy Chapin, Certified Nurse Midwife, M.S.N.

Lucy's clinical interests include family centered care, holistic postpartum care, pregnancy nutrition, botanical medicine in women's health, and promoting physiologic birth. She enjoys working with residents, medical students, and midwifery students in the outpatient setting as well as on the birthing center.

Diane Charland, M.D. *Assistant Professor*

Dr. Charland has a particular interest in both pelvic and continence surgery. She is fellowship trained in advanced pelvic surgery as well as urogynecology. Her clinical practice is focused on urodynamic testing in association with vaginal and pelvic surgery.

Martha Churchill, Certified Nurse Midwife, Lead Midwife, M.S.N.

Faculty interests are lactation/breastfeeding, health care disparity and health care equity, reproductive social justice, Midwifery Model of Care, Volunteer Doula Service.

Marilyn Cipolla, Ph.D. *Professor*

Dr. Cipolla's research focuses on how both acute hypertension and ischemic injury affect the structure and function of the cerebral circulation, including control of blood flow, blood-brain barrier disruption and edema formation. Research interests include how pregnancy and hypertension in pregnancy affect the cerebral circulation as it relates to eclampsia and how reperfusion injury affects brain blood flow and vascular permeability.

Julia Clayton, Certified Nurse Midwife, M.S.N.

Julia specializes in low-risk pregnancy, labor and birth, postpartum care, well-woman gynecology, contraceptive management and helping fellow women as they transition into menopause. She is also passionate and energetic while providing obstetric and gynecological care to women and families that is personal, empowering, holistic, mindful and culturally sensitive. She loves caring for all women to help achieve their best health and well-being through contraception/family planning, achievement of optimal pregnancy and postpartum outcomes and transitioning to parenthood and beyond.

Wendy Conway, M.D. *Assistant Professor*

Dr. Conway is one of the Hospitalists whose focus is general Obstetrics and Gynecology with an emphasis on inpatient obstetrics and emergent gynecological patients. She is very interested in teaching residents and students in the inpatient setting and has spent several years overseas as an active duty military physician. She has extensive experience working in both large and small medical facilities and is interested in the application of quality measures and processes to improve both medical teaching and patient outcomes.

Justin DeAngelis, M.D. *Assistant Professor, Associate Clerkship Director, Interim Assistant Dean for Students*

Dr. DeAngelis is a general OB/GYN with particular focus in obstetrics, family planning and medical education. He is interested in teaching all levels of trainees in clinical and classroom settings, and acting as an advocate and advisor to those hoping to pursue a career in education or OB/GYN.

Anne K. Dougherty, M.D. , M.A. *Associate Professor, ODEI Director for Gender Equity*

Dr. Dougherty is passionate about advocacy in all its forms. Through her work as Director for Gender Equity and Director of the Global Women's Health Program at the Larner College of Medicine, as well as her practice of patient-centered gynecology, she advances the health and wellbeing of women and gender minority faculty, staff, students, and patients. Her areas of research interest include care for transgender individuals, family planning and opioid use disorder in pregnancy.

Jennifer Dundee, M.D. *Assistant Professor*

Dr. Dundee has a particular interest in the application of assisted reproduction technologies to unique populations. She is the Director of Fertility Preservation. She also enjoys working with pediatric and adolescent reproductive endocrinology patients, particularly primary and secondary amenorrhea. Additionally, she performs minimally invasive surgeries to optimize fertility.

Navid Esfandiari, Ph.D., HCLD. *Professor and High Complexity Laboratory Director*

Dr. Esfandiari oversees the IVF and Andrology laboratories. His research activities involve the Assisted Reproductive Technology, pre-implantation genetic testing, and fertility preservation. Dr. Esfandiari's current studies are examining the effect of very young age, allergy, smoking and drug abuse on fertility treatment outcome. He has been mentoring medical and graduate students, residents and fellows.

Elise Everett, M.D., *Associate Professor, Level Director of Clinical Clerkships at the Larner College of Medicine*

Dr. Everett's clinical interests are in neoadjuvant chemotherapy for gynecologic cancers. Surgically, Dr. Everett has extensive experience in robotic surgery for gynecologic malignancies. Dr. Everett's passion lies in medical education. She is interested in laparoscopic and robotic surgical curriculum development and simulation for resident surgeons. Formerly, she held several educational leadership positions in the Department including the Vice Chair of Education, the ObGyn Medical Student Clerkship Director, the Director for Career Mentoring. In February of 2020 she took a position in the Dean's Office as the Level Director for Clinical Clerkships and now oversees the entire third year clinical clerkship curriculum at the Larner College of Medicine. Dr. Everett is an active member of the Teaching Academy and engages in numerous educational research and scholarly projects. Nationally, Dr. Everett is a member of the Undergraduate Medical Education Committee (UMEC) of the Association of Professors in Gynecology and Obstetrics (APGO) and is in her 6th year of 6 years of service. She is the UMEC liaison to the Alliance for Clinical Education (ACE).

Nathalie Feldman, M.D., C.M. *Associate Professor, Director of the Learning Environment for the Larner College of Medicine*

Dr. Feldman's interests include resident and medical student education, educational research related to the teaching and learning of medical professionalism and the fostering of inclusive and collaborative learning and work environments.

Mary Jo Gehrett, Certified Nurse Midwife, M.S.N.

Her clinical focus includes obstetrics, well-woman gynecology, phenomenology of birth and lactation, and mindful birthing preparation. She provides prenatal, birthing and postpartum care, as well as perimenopause and menopause counseling. Ms. Gehrett also offers contraception services, including IUD insertion. As a clinical instructor at the Larner College of Medicine at UVM, Ms. Gehrett's research interests include the phenomenology of birth and lactation.

Julia Johnson, M.D., Professor

Dr. Johnson is a Reproductive Endocrinology and Infertility Subspecialist who has returned to UVM after being here from 1990 – 2009. She is involved in educating Fellows and Residents and contributing to GYN ultrasound.

David Jones, M.D. *Professor and Director, Fetal Diagnostic Center*

Dr. Jones is interested in the application of ultrasound technologies to detect abnormalities in the developing fetus. The interest is largely focused in attempts to identify chromosome abnormalities and birth defects in the first trimester, but also includes the use of Doppler ultrasound to monitor the well-being of the fetus later in gestation.

Bronwyn Kenny, M.D. *Assistant Professor, Residency Program Director*

Dr. Kenny is a general obstetrician-gynecologist with a broad range of interests from minimally invasive gynecologic surgery to the management of substance abuse during pregnancy. She also has a strong interest in both resident and medical student education and enjoys teaching in the clinical setting.

Nga Ling (Theresa) Ko, Ph.D. *Assistant Professor*

My expertise is in the vascular biology of maternal uterine circulation during pregnancy. My long-term goal is to elucidate the roles of mechanosensation in the regulation of uteroplacental blood and to develop therapeutic approaches to treat women with preeclampsia, a hypertensive pregnancy complication. My research focuses on the mechanisms of maternal uterine vascular adaptation in normal vs. diseased pregnancy, including shear stress-induced uterine arterial remodeling, hormonal regulation of maternal uterine circulation and mechanosensitive ion channels in the uterine vasculature. In work funded by NIH (R01 HL134371, 2016-2021), we worked on the mechanisms by which shear stress is sensed and transduced into increased release of endothelial nitric oxide and examined how post-NO signaling leads to matrix activation and vessel growth. I have a strong interest in understanding the gestational uterine vascular adaptations, particularly the less studied venous hemodynamics and remodeling. Awarded a pilot grant by the Cardiovascular Research Institute (CVRI) at UVM (2018), I developed a new surgical approach of selective vein removal and published a paper showing for the first time that venoarterial signaling is involved in the shear stress-induced arterial remodeling during pregnancy *in vivo*. I have broad expertise in small animal surgical models, vascular microdissection, vessel reactivity, intracellular calcium experiments, cell culture, molecular biology, proteomics, viral pathogenesis and pharmacokinetics. My lab has established local, national and international collaborations. Several projects have received intramural and extramural funding support, including the Vision Grant from the Preeclampsia Foundation to study the Piezo1 mechanotransduction in gestational uterine circulation (2018), and the CVRI Early Career Research Award to investigate the effects of shear stress and the mechanosensory signaling on the manifestation of COVID-19 in pregnancy (2021).

Lauren MacAfee, M.D., MSc *Assistant Professor, Director, Ryan Residency Training Program in Family Planning and Associate Division Director, Generalist Division*

Dr. MacAfee's primary area of focus is family planning and she is interested in improving access to both contraception and abortion using health services research. More specifically, her ongoing research seeks to better understand barriers to reproductive health care for women with substance use disorders. Dr. MacAfee is also active and interested in undergraduate and graduate medical education particularly around family planning.

Tracey S. Maurer, M.D. *Assistant Professor*

Dr. Maurer's primary interest is in chronic and hard to diagnose vulvovaginal diseases such as vaginitis, dermatitis, and vulvodynia. She performs vulvar, vaginal and minor gyn surgeries as needed. Interstitial cystitis/painful bladder syndrome and office management of incontinence and prolapse is also an interest of hers. Dr. Maurer works with residents and medical students in hands-on teaching in the clinic and operating room.

Carole McBride, Ph.D. *Faculty Scientist*

Dr. McBride's primary interests include the associations between pregnancy complications and cardiovascular disease and cognitive decline in later life. She spends the majority of her time assisting junior faculty and trainees with research and quality improvement projects, including clinical, retrospective health care studies, and outcome studies. Dr. McBride enjoys teaching and guiding trainees through their research projects. She also works with the Vermont Child Health Improvement Program, which is a large quality improvement project that seeks to improve maternal and child health care across the state of Vermont, and is an affiliate of the Center for Health Services Research.

Elizabeth McGee, M.D. *Professor, Vice Chair for Gynecology, Division Director and Fellowship Director for Reproductive Endocrinology and Infertility*

Dr. McGee's NIH-funded research is translational ranging from bench science to patient care models. Her basic interests include 1) ovarian physiology and folliculogenesis, 2) signal transduction and hormonal function and 3) vulvovaginal mucosal biology. Her clinical and translational research is focused on the design of optimal care for special populations such as survivors of gynecologic and non-gynecologic cancer, women with complex menopausal problems and patients with polycystic ovarian disease. She serves as a mentor for a wide range of trainees including fellows, graduate students, residents, and medical students. She has active collaborations with investigators in menopause, estrogen function and providing accessible health care.

Kelley McLean, M.D. *Associate Professor and Faculty Liaison for the Certified Nurse Midwife Service*

Dr. McLean's primary research interest is in coagulation parameters in pregnancy, with particular emphasis on thrombotic risk. She is currently involved in collaborative studies to better understand thrombotic risk in specific subsets of pregnant women (obese women, smokers, etc.). She hopes to expand her research to include studies of the fibrinolytic pathway, as well as more detailed biochemical studies of coagulation pathways, to better understand pregnancy and postpartum-related hematologic changes.

Meredith Merritt, Certified Nurse Midwife, M.S.N.

Meredith's interests are contraceptive care, medical and midwifery student education. She also enjoys supporting pregnant people during unmedicated labor and birth. Postpartum care and early transition to parenthood.

Marjorie C. Meyer, M.D. *Professor, Vice Chair of Obstetrics, Division Director of Maternal Fetal Medicine*

Dr. Meyer's interests are medical complications of pregnancy and substance abuse during pregnancy. She has research projects in areas including pain during childbirth, medical therapy and outcomes of treatment of substance abuse during pregnancy.

Erin Morris, M.D. *Assistant Professor, Clinical Clerkship Director*

Dr. Morris' primary research interests are maternal cardiovascular adaptation to pregnancy and preeclampsia. She is currently involved in a research project examining the degree to which pregnancy-induced cardiovascular changes persist postpartum. She is also the site coordinator for the Australian Placental Transfusion Study—an international multi-center randomized controlled trial of delayed cord clamping in preterm infants.

Shanmugasundaram Nallasamy, D.V.M, Ph.D. *Assistant Professor*

The long-term research goal of Nallasamy laboratory is to understand mechanisms by which the uterus maintains quiescence during pregnancy and subsequently transitions to a contractile state at term and preterm birth. Specifically, we aim to understand the mechanisms by which myometrial extracellular matrix modulates myometrial transition by regulating smooth muscle cell differentiation and tissue mechanical function. To achieve our aim, we are focusing on the following research areas: 1. Dynamic alterations to structure and composition of myometrial extracellular matrix that dictate tissue mechanical function during term and preterm birth. 2. Distinct roles of collagen and elastic fibers in myometrial extracellular matrix remodeling 3. Function of lysyl oxidase on myometrial extracellular matrix structure and smooth muscle cell differentiation 4. Regulation of myometrial extracellular matrix remodeling by steroid hormones, and microRNAs. We utilize physiologically and clinically relevant mouse models, genomic, proteomic, tissue biomechanical and imaging techniques to address our research questions. The outcomes of our research will have potential clinical significance in identifying risk factors and designing new therapeutic strategies for the prevention of preterm birth.

Cate Nicholas, Ed.D., M.S., P.A. *Assistant Professor, Director of Simulation Education and Operations for the Clinical Simulation Laboratory*

Dr. Nicholas retired from clinical practice in ambulatory gynecology and family planning after 30 years of private practice. She works in consultation with faculty as an expert in simulation based education with a focus on standardized/simulated patient methodology. She is co-editor of 2020 publication- Comprehensive Healthcare Simulation: Implementing Best Practices in Standardized Patient Methodology. She works with faculty on improving their feedback and debriefing skills and is working on creating an anti-racist clinical skills curriculum.

Krista Nickerson, Certified Nurse Midwife, M.S.N.

Krista provides woman-centered care including prenatal, birth and postpartum care as well as breastfeeding support. She supports childbirth and parenting preparation from a background of body-awareness and mindfulness practice. She also practices well-woman gynecology and offers contraception services including IUD insertion and management.

Julie Phillips, M.D. *Associate Professor and Fellowship Director of Maternal Fetal Medicine*

Dr. Phillips is a perinatologist whose clinical interests include medical complications of pregnancy and prenatal diagnosis. She is a collaborator in the Vermont Center on Behavior and Health examining the effects of behaviors on health outcomes. She has a strong interest in teaching and curriculum development and is a member of the Teaching Academy at the Larner College of Medicine. She serves as the program director for the fellowship in Maternal Fetal Medicine, is active in the Society for Maternal Fetal Medicine, and an examiner for the American Board of Obstetrics and Gynecology.

Jeanette Rivera, M.D. *Assistant Professor*

Dr. Rivera's interests are on surgical and non-surgical treatment of urinary incontinence, pelvic organ prolapse, overactive bladder, and other pelvic floor disorders. Additionally, I specialize in evaluating and managing other bladder conditions such as bladder pain/interstitial cystitis, recurrent urinary infections, hematuria as well as pelvic floor dysfunction including urinary and defecatory problems.

Rebecca M. Shaffer, M.D. *Assistant Professor, OB/GYN Residency Associate Program Director*

Dr. Shaffer is a Urogynecologist with expertise in Female Pelvic Medicine and Reconstructive Surgery, including the treatment of pelvic organ prolapse and incontinence. She performs vaginal, laparoscopic, and robotic-assisted surgeries. Her primary research interests include educational research such as minimally-invasive surgical simulation and teaching for medical students and residents. She has also performed basic science research on the effects of synthetic mesh on vaginal and pelvic tissues.

Cormany Simon-Nobes, Certified Nurse Midwife, M.S.N.

Her practice focuses on pregnancy, childbirth, postpartum and well-woman gynecologic care. Her clinical expertise is in mindfulness-based childbirth.

Whitney Smith, Certified Nurse Midwife, M.S.N

Whitney's interests include supporting birthing people and growing families throughout the childbearing years. She provides support to her patients with breastfeeding and herbal medicine.

Stephanie Stahl, PA, Physician Assistant

Stephanie Stahl is a Physician Assistant whose clinical practice is focused on general gynecology and gynecologic oncology. Her interests in gynecologic oncology include screening high risk populations, caring for patients throughout the course of treatment, and in long term survivorship. She is also experienced in the management of urogynecologic issues such as pelvic organ prolapse, urinary incontinence and painful bladder syndrome. She provides support to the OB-Gynecology residency program by helping to care for the inpatient service and by assisting in the operating room. She enjoys engaging in medical student education in the clinical setting.

Bonitta Steuer, Certified Nurse Midwife, M.S.N.

Provides care to pregnant people with focus on parent education and support of physiologic birth, and well-person gynecology and contraception management. Employs mindfulness based approaches to labor support. Interest in education of midwifery students and medical trainees.

George Till, M.D. *Associate Professor and Division Director for General Obstetrics and Gynecology*

Dr. Till's research interests are in health care policy. His current project is regarding Vermont physician attitudes about single payer health care systems and physician assisted suicide. He is a Hospitalist with the responsibility of medical student and resident teaching and is also a member of the Vermont Legislature and the Vermont Health Care Reform Commission.

Elisabeth K. Wegner, M.D. *Associate Professor*

Dr. Wegner oversees the Women's Services GYN Ultrasound Unit and Colposcopy clinic. She is involved in resident education regarding ultrasound and coordinates the monthly GYN ultrasound conferences. Her interests include 3D GYN ultrasound and its application to uterine anomalies and other pelvic pathology and early pregnancy ultrasound, in particular diagnosis of abnormally located pregnancies.

Cheung Wong, M.D. *Professor, Division Director, Gynecologic Oncology*

Dr. Wong's research activities involve the study of angiogenesis in ovarian cancer. Current studies are examining the role of HIF-1 and IL-6 in ovarian cancer, using human tumor tissues as well as cell culture techniques. Dr. Wong is currently studying molecular markers in ovarian tissue from patients who underwent prophylactic oophorectomy and from women with ovarian cancer.

Sandra Wood, *Certified Nurse Midwife and Psychiatric Mental Health Nurse Practitioner*

Sandra's interests are providing Perinatal Psychiatry services with a particular interest in pregnancy loss and emotional birth trauma. She also serves as a Consultant for the State of Vermont on Perinatal Mental Health.