Banner University Medical Center Phoenix
New Patient Tower

Construction of our new 16-story patient tower began in 2015. The Emergency Department relocated to the new tower in June 2017, followed by an observation unit that was completed in December 2017. The tower will be fully operational in November of 2018 and will feature:

- All new private rooms
- 4 operating rooms (added to our existing 20 operating rooms)
- ICU occupying floors 4-7
- Canyon Conference Center with 13 conference rooms
- Administrative offices

The next phase is the demolition of the West Tower, which will become the site of the hospital’s new main lobby entrance scheduled for completion in 2020.

Photo courtesy: Jordan H. Perlow, MD
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Introduction

As collaborative health care leaders, we strive to improve the quality of life for women across generations through comprehensive patient care, exceptional education and innovative research. Innovation, integration and collaboration have provided the primary drive and focus for the Department of Obstetrics and Gynecology at Banner-University Medical Center Phoenix. The past 2 years marked the unprecedented official merger of Banner Health with the University Of Arizona. This innovative model brings the academic identity of the University of Arizona together with one of the largest non-profit healthcare delivery systems in America, Banner Health. A clear strength and advantage of our UA Department of Obstetrics and Gynecology is our distributive model of education. Our affiliated partners include Maricopa Integrated Health Systems (MIHS), St. Joseph’s Hospital and the Phoenix Veterans Administrative Hospital. The breadth and depth of clinical and research experiences provided through our distributive model of education is unprecedented.

The Women’s Institute at Banner-University Medical Center Phoenix has been transitioned to the previous Banner Health Corporate Center in order to expand services and facilitate the development of Integrated Practice Units (IPU) in women’s health. Through facilitated collaboration with specialties such as cardiovascular services, bariatrics, and endocrinology, the focus shifts from silo care to coordinated multi-specialty care teams; i.e. Virtual Obstetric ICU.

Our national symposiums in Critical Care in Obstetrics and Minimally Invasive Gynecologic Surgery have received international acclaim for innovation and integrated teaching utilizing on-line lectures, flipped classroom, and bedside simulation. In 2016, we have embraced the realms of virtual and augmented reality to compliment the learning styles of our millennial learners. New interactive educational innovations are currently underway to further enhance the education of our millennial learners. We are looking forward to a successful and fulfilling 2017.

As educators and caregivers, we must strive to capably manage and understand the true essence of “disease.”

To know what you do not know is best. To pretend to know when you do not know is disease. – Lao Tsu

Michael R Foley, MD
Professor and Chair
Department of Obstetrics and Gynecology
University of Arizona College of Medicine Phoenix

A Note from the Chair

Innovation, integration, and collaboration continue to be our department’s focus for the 2018 academic year.

We have evolved and enhanced our research department with new leadership, membership and a renewed focus on translational research. We have a newly developed Scholarship Committee that facilitates quality research and mentorship. Playing to our strengths, the department has continued to pursue growth in academia and teaching. Our residency program in Obstetrics and Gynecology (The University of Arizona College of Medicine Phoenix) is flourishing as we continue to attract the nation’s top medical school applicants. Our Minimally Invasive Gynecologic Surgery and Maternal Fetal Medicine Fellowships are underway and in full complement.

Our national symposiums on Critical Care in Obstetrics and Minimally Invasive Gynecologic Surgery have received international acclaim for innovation and integrated teaching utilizing on-line lectures, flipped classroom, and bedside simulation. Our goal for 2018 is to further embrace the realms of virtual and augmented reality to compliment the learning styles of our millennial learners. Our Women’s Institute has integrated our Women’s Clinic, NICU, Labor and Delivery, and all inpatient women’s care units to establish a unified model of care. In addition, we have a highly functional Women’s Institute –Patient Safety and Quality Committee that brings a strong collaborative team approach to quality care delivery.

We are looking forward to a productive and energizing academic year filled with positivity, happiness, and fulfillment!

Michael R. Foley, MD
Professor and Chair
Department of Obstetrics and Gynecology
University of Arizona College of Medicine Phoenix

The two most important days in your life are the day you were born and the day you find out why.
– Mark Twain
A Note from the Program Director

After a very thoughtful 5-year journey to increase our program size, we will be at our full complement this June as we fill all of our ACGME allotted slots in our residency program and two fellowships. This will be our fourth year of matching 9 residents per class for a total of 36 residents. Both our MIGS and MFM fellowships will also be in full complement with 2 and 3 fellows, respectively. It has been an incredible journey of introspection, assessment, growth, and development.

We continue to pursue excellence and growth in academia, teaching, and research. We attract top-notch medical student applicants and faculty who flourish in our innovative, intellectual, and supportive environment. We are extremely proud of the outstanding educational experience we provide our residents. We are delighted to graduate these skilled, bright and compassionate physicians who will make excellent contributions to women’s healthcare for years to come.

Laurie Erickson, MD
Residency Program Director
Clinical Associate Professor
Department of Obstetrics and Gynecology
University of Arizona College of Medicine Phoenix
Michael R. Foley, MD
Professor and Chair
Department of Obstetrics and Gynecology
University of Arizona College of Medicine Phoenix

Dr. Foley received his medical degree in 1984 from Chicago Medical School. His residency in Obstetrics and Gynecology and fellowship in Maternal Fetal Medicine were completed at The Ohio State University Hospital in 1988 and 1990, respectively. Dr. Foley has published numerous scientific articles and is a reviewer for several medical journals. He is a national and international lecturer as well as an award-winning teacher and author. He has also served as a Board Examiner in the subspecialty of Maternal Fetal Medicine.

He is considered a national authority on Critical Care Medicine in Obstetrics. Dr. Foley is Past President of the Society for Maternal Fetal Medicine-National (2008) and the recipient of the Society for Maternal Fetal Medicine Lifetime Achievement Award (2013). He is the Lead Editor of Obstetric Intensive Care: A Practical Manual, first edition published in the spring of 1997. The fifth edition was recently published in 2018 (McGraw-Hill). He is also a co-editor of Critical Care Obstetrics soon to be published Sixth Edition (Wiley-Blackstone). Dr. Foley is a founding instructor and faculty member for the Dan O’Keeffe, M.D. SMFM Academy for Leadership and Development which is in its sixth year of operation, training hundreds of medical leaders and professionals. He is a sought after motivational speaker and mentor.

Dr. Foley is a seventh-degree black belt and the founder of The Center for Humane Living, a 501c3 organization whose mission is “To inspire all people to live peaceful and compassionate lives.” He has been teaching martial arts and conflict management out of his center for the past 27 years. Dr. Foley has written an award-winning book, The Art of Humane Living – Martial Arts as a Path to Peace and authored Ancient Wisdom for Life Fulfillment.

He is married to Dr Lisa Dado who is a pediatric anesthesiologist. They have three children, Bonnie (30), Molly (26) and Michael (24).
Dr. Erickson graduated from the University of Arizona College of Medicine Tucson and completed her residency at Banner Good Samaritan Medical Center in Phoenix in 1997. She then joined Maricopa OB/GYN Associates which is one of the major generalist teaching groups affiliated with our residency program. Dr. Erickson became an Assistant Director in 2007, Associate Program Director in 2009 and the full-time Program Director in 2014. She is a Clinical Associate Professor at the University of Arizona COM Phoenix. Dr. Erickson is a national leader, having served as an ACOG officer for the Arizona Section of District VIII and on the ACOG Consortium for Simulation. Dr. Erickson has completed the APGO Scholars and Leaders Program and the CREOG Program Directors School. She has presented posters at national meetings, including 2016, 2017 and 2018 ACOG and CREOG Annual meetings. Dr. Erickson is very active on institutional committees, most importantly Medical Executive Committee and the Student Progress Committee.

After graduating from the University of Colorado Medical School, Dr. Urig came to Phoenix where he completed his residency at Banner Good Samaritan in 1989. Following residency, he joined Maricopa OB/GYN Associates (MOGA) which is one of the primary teaching groups at Banner. He serves as President of Arizona OB/GYN Associates (AOA), the largest group of private practice OB/GYN physicians in the state.

Dr. Urig has been on the teaching faculty in this department for more than 20 years and is currently the Associate Chair and Associate Director of the residency program. Dr. Urig is a Clinical Associate Professor at the University of Arizona-College of Medicine, Phoenix Campus. Dr. Urig serves on many hospital committees including serving as Chief of Service for many years. He is a co-lead on the Clinical Consensus Group for the Banner system and plays an integral role in assuring evidence-based medicine is used to optimize patient care throughout the system.
Dr. Laura Mercer earned her bachelor degrees from Northern Arizona University and her medical degree from the University of Arizona. She completed her specialty training in obstetrics and gynecology at Banner University Medical Center Phoenix. She is a specialist in comprehensive obstetrics and gynecology with Maricopa OB/GYN Associates (MOGA) and is part of the core teaching faculty at Banner University Medical Center Phoenix.

Dr. Mercer is a Clinical Assistant Professor at The University of Arizona College of Medicine Phoenix and is the Medical Student Clerkship Director for students as they are introduced to the best specialty medicine has to offer. Dr. Mercer’s interests include contraception, adolescent health, minimally invasive surgery, collaborative care and medical student and resident education. She remains actively involved in the American Congress of Obstetricians and Gynecologists (ACOG), where she has served on several section, district and national boards and committees.

Robert E. Garfield, MD
Senior Research Scientist

Robert Garfield is an academic researcher and author with formal training in pharmacology (PhD, University of Alberta). He has collaborated globally with leading scientists and clinicians. He has held positions as full professor in Departments of Obstetrics and Gynecology at McMaster University (Hamilton, Ontario), University of Texas Medical Branch (Galveston, Texas), St. Joseph’s Hospital and Medical Center (Phoenix, Arizona) and recently completed four years of study at Guangzhou Women and Children’s Hospital (Guangzhou, China). Presently he is a senior research scientist at the in University of Arizona College of Medicine in Phoenix in the Department of Obstetrics and Gynecology at Banner University Medical Center-Phoenix.

Dr. Garfield maintains an active research program focused on pregnancy from conception to delivery, including electrical activity of uterine muscle which controls uterine contractions during term and preterm labor, and dilation of the cervix. He has published over 500 peer reviewed papers, textbooks and about 1000 published abstracts at international meetings, and holds many patents on drugs and medical devices. He is most noted for his discoveries on the structure and function of the uterus and cervix, methods and devices to diagnose true labor at term and preterm and treatment of premature labor. He has also mentored over 300 young investigators. He has received many awards, honors and grant funding during his career.

Laura Mercer, MD
OBGYN Clerkship Director
Clinical Assistant Professor

She completed her specialty training in obstetrics and gynecology at Banner University Medical Center Phoenix. She is a specialist in comprehensive obstetrics and gynecology with Maricopa OB/GYN Associates (MOGA) and is part of the core teaching faculty at Banner University Medical Center Phoenix.
After attending Stanford University and receiving his Master and Bachelor of Science in Biology and Medical Microbiology with honors and distinction, Dr. Laband obtained his MD at The Mount Sinai School of Medicine in New York City. From there, he relocated to Phoenix where he has been part of the BUMCP family for over thirty years.

In addition to serving on various committees, his duties include Clinical Assistant Professor, Associate Director, and Section Head of the Gynecology Division.

Dr. Nichole Mahnert received her Bachelors degree in Nutrition and Spanish from the University of Arizona. She then attended the University of Wisconsin School of Medicine and Public Health for medical school. She took one year to pursue the Doris Duke clinical research fellowship at University of Texas Southwestern in Dallas. Following graduation from medical school she went on to Obstetrics and Gynecology residency at Kaiser Permanente Santa Clara in Northern California.

After working as a generalist for 2 years in Shanghai, China she returned to the United States to complete a fellowship in Minimally Invasive Gynecologic Surgery (MIGS) and Chronic Pelvic Pain at the University of Michigan. She worked in California before returning to her home in Phoenix to take a position at Banner University Medical Center as an Clinical Assistant Professor in Obstetrics and Gynecology and the MIGS Fellowship Co-Director. As part of her current role she started a chronic pelvic pain and endometriosis clinic at the Women's Institute. She also continues her research interests as chair of the Scholarship Committee and directs resident research.

Dr. Mahnert’s areas of specialty lie in minimally invasive gynecologic surgery including traditional laparoscopy, vaginal surgery and hysteroscopy. She has special interests in fibroids, abnormal bleeding, pelvic pain and endometriosis. Her current research projects encompass vaginal and gut microbiome in relation to gynecologic conditions, peri-operative pain control, chronic pelvic pain and endometriosis treatments, quality and safety in health care, and advocacy for women and diversity in medicine.
Division Directors
Matthew P. Borst, MD  Gynecologic Oncology
C. Kevin Huls, MD  Maternal-Fetal Medicine
Steven J. Laband, MD  Gynecology
Shazia A. Malik, MD  Female Pelvic Medicine and Reconstructive Surgery
Drew V. Moffitt, MD  Reproductive Endocrinology-Infertility
Michael A. Urig, MD  Obstetrics and Gynecology

Fellowship Directors
C. Kevin Huls, MD  Maternal-Fetal Medicine
Jamal Mourad, DO  Minimally Invasive Gynecologic Surgery

Residency Class of 2018 (L to R):
Kendra Gray, Rachael Smith, Lindsay Emerick, Janel Brink, Jamal Mourad (Program Director MIGS), Laurie Erickson (Program Director OB/Gyn Residency), Sarah Detlefs, Kelley Saunders, Hailey Robbins, and Trevor Quiner
Obstetrics

Our inpatient Obstetrical unit provides 28 Labor and Delivery Rooms (LDR’s). Each LDR is designed for the spectrum of natural, unmedicated labor in a family-oriented environment, to the High-risk ICU level care for complicated labor and delivery. Over 5000 deliveries are performed each year in our unit. A supportive environment is provided for our patients who desire minimal intervention, active movement during labor, minimal monitoring, and the option for labor tubs. Skin-to-skin bonding is emphasized in all deliveries, even cesarean sections, immediately after delivery with “the golden hour” and is considered very important for initiation of bonding and breastfeeding. Midwifery has been instituted and plans are in place for the growth of the midwifery practice in the department. There are 4 obstetrical surgical suites on the unit, including one dedicated to multiple gestations.

Evidence-based protocols have been put in place for outpatient cervical ripening prior to admission for induction of labor. This has helped to decrease the cesarean section rate, postpartum hemorrhage, and shoulder dystocia and to reduce costs and improve safety and outcomes for mother and baby. The development of an Obstetrical Rapid Response team comprised of nurses, resident physicians, anesthesiologists, obstetricians, and maternal fetal medicine specialists has allowed us to respond to emergencies anywhere in the hospital. Twenty-four-hour in-house anesthesia, maternal fetal specialists, neonatal specialists, and obstetricians allow us to respond to all of the needs of our patients at all times.

Indicators such as elective delivery before 39 weeks, length of stay, readmissions, incidence of postpartum hemorrhage, percentage of patients threatening delivery before 34 weeks who receive steroids, and breastfeeding success are just some of the indicators that are evaluated on a regular basis to maximize safety, insure excellent outcomes, and provide better quality care.

High-Risk Pregnancy

The Division of Maternal Fetal Medicine (MFM) at Banner University Medical Center Phoenix is dedicated to providing the utmost in compassionate state-of-the-art medical care to women with high-risk pregnancies.

We treat a wide variety of maternal and fetal conditions at any gestational age which increases risks for adverse outcomes. These include:

- High-order multiples
- Placenta accreta
- Placenta previa
- Pre-term labor
- Premature rupture of membranes
- Maternal cardiac conditions
- Morbid obesity
- Fetal anomalies (such as omphalocele, neural tube defects, and cardiac defects)

We accept transports of patients by fixed-wing aircraft or via helicopter from across Arizona to receive their care at Banner University Medical Center Phoenix.

A team of Maternal-Fetal Medicine and Neonatal specialists are available 24/7 to provide bedside care.

We work closely in caring for critically-ill pregnant patients with a readily available, highly specialized diverse team of:

- Intensivists
- Cardiologists
- Pulmonologists
- Trauma surgeons
- Gynecologic oncologists
- Urologists
- Interventional radiologists
Placenta Accreta
With a commitment to excellence in the care of patients with abnormal placentation, Banner University Medical Center Phoenix has developed a multidisciplinary approach utilizing a team of highly skilled specialists. Our comprehensive care management program addresses patient and family needs throughout the pregnancy, at the time of delivery, and postpartum.

An individualized plan of care is created for each mom-to-be by a team of experts in Maternal Fetal Medicine, Trauma Surgery, Gynecological Oncology, Anesthesiology, Interventional Radiology, Urology, Neonatology, Nursing, Social Work and Case Management. Additionally, the hospital’s laboratory and blood bank are readily mobilized so the patient benefits from having a coordinated approach to care.

Our experienced doctors and nurses are prepared to care for these highly complex pregnancies and deliveries, and for any emergencies that may arise. Patients have the knowledge and peace of mind that Banner – University Medical Center Phoenix has the resources to promptly assemble highly skilled specialists from multiple disciplines should the need arise.

Virtual ICU
The following abstract summarizes a Viewpoint article published in the American Journal of Obstetrics and Gynecology in December 2016 (Leovic M, Starikov R, Robbins H, and Foley M.)

Management of the critically-ill pregnant patient presents a clinical dilemma in which there is sparse objective data to determine the optimal setting for the provision of high-quality care to these patients. This clinical scenario will continue to present a challenge for providers as the chronic illness and comorbid conditions continue to become more commonly encountered in the obstetric population. Various care models exist across a broad spectrum of facilities that are characterized by differing levels of resources; however, no studies have identified which model provides the highest level of care and patient safety while maintaining a reasonable degree of cost-effectiveness. The healthcare needs of the critically-ill obstetric patient calls for clinicians to move beyond the traditional definition of the “ICU” and develop a well-rounded, quickly-responsive, and communicative interdisciplinary team that can provide high-quality, unique, and versatile care that best meets the needs of each particular patient. We propose a model where a “Virtual ICU” team composed of pre-selected specialists from multiple disciplines (maternal-fetal medicine, neonatology, obstetric anesthesiology, cardiology, pulmonology, etc.) participate in the provision of individualized, pre-contemplated care that is readily adapted to the specific patient’s clinical needs, regardless of setting. With this team-based approach, an environment of trust and familiarity is fostered amongst team members and well thought-out patient care plans are developed through routine “pre-brief” discussions regarding individual clinical care for parturients anticipated to required critical care services. Incorporating debriefings between team members following these intricate cases will allow for the continued evolution of care as the medical needs of this patient population change as well.
Obstetric Anesthesia

The division of Obstetric Anesthesiology at Banner University Medical Center Phoenix consists of board certified Anesthesiologists who head a team of highly trained medical professionals who bring state-of-the-art anesthesia care to all of our obstetric patients. As part of our commitment to the highest level of both high-risk and routine obstetric care, we staff the labor and delivery floor 24/7, 365 days a year.

We are the providers of education and training to both anesthesia residents and OB/GYN residents during elective time. We have designed and implemented a core curriculum which combines didactic teaching with supervised hands-on experience.

We are experienced in treating the highest risk, critically ill patients at Banner University Medical Center Phoenix, and are well versed in life saving fluid resuscitation, invasive monitoring, advanced airway management as well as complex pain management problems.

The Department of Obstetric Anesthesia works closely and collaboratively with our “virtual” obstetric intensive care team, our simulation department and Banner Health’s Women’s Institute. Team members from Obstetric Anesthesia regularly participate in multi-disciplinary obstetric board checkout rounds to provide insight, teaching and up-to-date consultations.
The Division of Gynecology at Banner – University Medical Center Phoenix involves outpatient and inpatient management encompassing the spectrum of Women’s Health issues. Management opportunities include:

- Well Woman Visits
- Menstrual abnormalities
  - Anovulation and infrequent periods
  - Heavy periods
  - Hormonal treatment
  - In Office Endometrial ablation
- Infertility evaluation and treatment
- Abnormal pap smears and cervical dysplasia
  - Colposcopy
  - Chemical ablative and excisional procedures
- Contraception and Family Planning
  - Hormonal Contraception
    - Birth Control Pills
    - Contraceptive ring
    - Depo-provera
    - Birth control patch
  - Long Acting Reversible Contraception
    - Hormonal IUD
    - Copper IUD
    - Hormonal implants
  - Permanent Contraception
    - Laparoscopic and hysteroscopic tubal sterilization procedures
- Polycystic Ovarian Syndrome
- Pelvic pain
- Endometriosis
- Menopause management
- Postmenopausal bleeding
- Gynecological Ultrasound
- Ovarian Cysts

Uterine fibroids: medical management + surgical management including:
  - Hysteroscopic resection
  - Fibroid removal (myomectomy)
  - Hysterectomy
  - Endometrial ablation

A variety of surgical approaches for diagnosis and treatment of various conditions
  - Vaginal
  - Laparoscopic
  - Robotic
  - Mini laparotomy

Ongoing development involves Integrative Gynecology and a surgical gynecology consensus group to determine the best surgical route for each individual patient. We work closely with other specialists when a patient’s disease process requires expertise outside of our scope.
Minimally Invasive Gynecologic Surgery

At Banner University Medical Center we strive to provide and deliver exceptional care in the most minimally invasive approach as possible. While offering all of our patients state-of-the-art, safe and compassionate treatment plans, we continuously track our patients’ data and outcomes so that we can understand what measures, procedures and treatments result in the best possible outcomes.

Our patients can expect a caring and welcoming environment where academia and clinical medicine come together to deliver the highest possible quality care.

Clinical Services

Office Procedures
- Endometrial Ablation
- Hysteroscopy
- Cystoscopy
- Colposcopy
- LEEP

Minimally Invasive Surgery
- Hysterectomy
  - Vaginal
  - Laparoscopic
  - Robotic
- Ovarian cystectomy
- Removal of fibroids
- Removal of polyps
- Repair of pelvic prolapse
- Incontinence treatment
- Trans-abdominal cerclage

Medical Treatment
- Hormone replacement
  - Pellets
  - Bio-identical hormones
- Couples therapy

Department of Obstetrics and Gynecology (2017)

Hysterectomies performed for benign disease: 757
Laparotomy approach: 11%
Minimally invasive approach: 89%

2017 Benign Hysterectomy Route at BUMC-P

<table>
<thead>
<tr>
<th>Hysterectomy Route</th>
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Our Commitment to Excellence
Our Minimally Invasive Gynecologic Surgery Program offers a number of advantages:

- Delivery of exceptional care
- Outpatient clinic conveniently located on the Banner University Medical Center campus
- The expertise of locally and nationally renowned medical and surgical leaders in all specialties
- Multi-disciplinary care at every level
- State-of-the-art equipment: hysteroscopy, laparoscopy, and robotics
- A robust vaginal surgery program
- Collaboration with Women’s Sexual Medicine
- High volume experience with complex procedures
The Division of Gynecologic Oncology at Banner University Medical Center Phoenix is dedicated to helping women with the diagnosis and treatment of reproductive tract malignancies, premalignancies or suspected malignancies.

These include:
- Endometrial Cancer
- Ovarian Cancer
- Cervical Cancer
- Vulvar and Vaginal Cancer
- Gestational Trophoblastic Disease

Our mission is to provide comprehensive and multidisciplinary care resulting in the most up to date and innovative treatment for these conditions. Special attention is made to provide a caring and supportive environment by using a dedicated unit that uses expertise in nursing care, oncology pharmacists/case managers, nutrition specialists, genetic counsellors and Gynecologic Oncologists.

Our Gyn Oncology services include:
- Minimally invasive and robotic surgical teams
- Cancer genetics program
- Direct access to national clinical trials research

Special Features of the Gyn Oncology Division:
- Manage complex cases from throughout AZ
- Dedicated women’s specialty service
- Expertise in surgical management for abnormal placentation (Placenta Accreta Program)
- Educate 36 OB/Gyn resident physicians per year in Gyn Oncology and complex Gynecologic Surgical Care
- Cancer screening and prevention program with community outreach
- BUMCP partnership with Arizona Oncology to promote teaching, research and service
- Regional leader in gynecologic oncology
- Principle investigators in research involving:
  - PARP inhibitors
  - Immune Therapy
  - DNA vaccine therapy for cervix cancer

Gynecologic Oncology

Gyn Oncologists on the Teaching Staff at BUMCP (L to R):
Doctors Snehal Bhoola, Heather Dalton, Mathew Borst, Lyndsay Wilmott, Mike Janicek, Shana Wingo, Brad Monk, Dana Chase, Dennis Scribner
The Division of Female Pelvic Medicine and Reconstructive Surgery at Banner University Medical Center Phoenix consists of double-boarded fellowship trained physicians who are experts in the care of women with advanced pelvic floor disorders:

They treat several common conditions such as:
- Moderate to severe pelvic organ prolapse
- Urinary incontinence
- Fecal incontinence
- Overactive bladder
- Genitourinary fistulas
- Bladder pain syndrome
- Defecatory dysfunction
- Urethral diverticula
- Genitourinary syndrome
- Recurrent cystitis
- Genitourinary mesh implant complications
- Perineal and anal sphincter injury due to obstetric complications

Patients have the opportunity to have a consultation to discuss all options for management including conservative and surgical measures and in office therapy.
- Mesh revision and removal
- Rectovaginal fistula repair
- Vesicovaginal fistula repair
- Urethral diverticulectomy
- Thermal radiofrequency treatment of vagina for atrophy (ThermiVA)

Surgical management of stress urinary incontinence has multiple options, including:
- Mid urethral sling
- Autologous fascial sling
- Retropubic urethropexy
- Urethral bulking injection

We offer multiple advanced therapies for overactive bladder:
- PTNS (Peripheral Tibial Nerve Stimulation)
- Sacral neuromodulation (Interstim)
- Pelvic floor muscle therapy
- Intravesicular Botox injections

Chronic Pelvic Pain and Endometriosis Clinic

We have created a comprehensive chronic pelvic pain and endometriosis clinic to care for the complex needs women encounter in the diagnosis and treatment for these associated conditions. Our clinic offers compassionate, quality care and incorporates a holistic approach. Within our office we offer a seamless diagnostic approach with advanced pelvic ultrasound capabilities. We collaborate with our key partners including gastroenterology, urology, radiology, physical therapy, nutrition and psychiatry. Additionally, we are also building relationships with acupuncturists and Chinese medicine practitioners. We provide a balance of medical and surgical treatments to meet the diverse needs of our patients.
Reproductive Endocrinology and Infertility

Banner University Medical Center Phoenix provides compassionate, comprehensive, individualized care for women with a variety of infertility and reproductive endocrine conditions. These include:

- Unexplained infertility
- Male factor infertility
- Fallopian tube disease
- Uterine disease
- Amenorrhea
- Polycystic ovarian disease
- Ovulatory disorders
- Recurrent pregnancy loss
- Endometriosis
- Diminished ovarian reserve
- Advanced maternal age
- Complicated menopausal syndromes
- Recessive genetic disorders
- Galactorrhea

Our treatment programs include:

- Ovulation induction
- Superovulation and insemination
- State-of-the-art In-Vitro Fertilization (IVF)
- Laser-assisted pre-implantation genetic screening
- Assisted hatching
- Fertility preservation
- Egg and blastocyst vitrification
- Embryo banking
- Fresh donor egg services
- Frozen donor egg services
- Embryo donation
- Gestational carrier
- Hormonal therapy
- Minimally invasive surgery

Our physicians are all fellowship-trained, board certified and have over 20 years of experience. They are not only leaders in their field but have led the implementation of procedures to make each patient’s experience safe and reduce the risk of multiple pregnancies.
The Sexual Medicine Program operates within the Women’s Institute as a unique and innovative resource for women throughout the greater Phoenix area, and beyond. It is the only practice in Arizona dedicated to sexual health for women, and has launched new integrative programs to address both mind and body concepts that are crucial toward improving and resolving the sexual concerns of women. Aligned with that goal, we offer complete evaluation and care for all hormonal treatment options and diagnosis and treatment of all vulvar and vaginal pain disorders. Because sexual concerns are often linked with other medical conditions or medication side effects, we collaborate with primary care physicians or appropriate providers in other disciplines to provide a safe and well-managed plan of care for each woman.

The Sexual Medicine Program specializes in:

Comprehensive diagnosis and treatment of women’s sexual concerns such as:
- Low libido/desire
- Diminished arousal
- Difficult or absent orgasm
- Sexual pain
- Sexual trauma

Diagnosis, treatment and long-term care of vulvar disorders such as:
- Vaginismus and disorders of vaginal penetration
- Vaginal stenosis/narrowing
- Vulvar vestibulitis
- Inflammatory vulvar disorders - Lichen Sclerosis, Lichen Planus, Lichen Simplex Chronicus, etc.
- Sexual and body image effects from cancer treatment
- Chronic vulvar irritation, vaginal infections
- Sexual effects from associated medical illnesses, surgery or medications
- Menopause and all options regarding hormone therapy
- Sexuality counseling related to body image, sexual trauma, cancer treatment, and/or any sexual concerns
- Premarital empowerment program – sexuality education and counseling session to educate and promote healthy self-image and relationship
- Close collaboration with community sex therapists and psychotherapists to provide holistic care to their clients

We regularly conduct community workshops dealing with sexual health, as well as professional trainings for the medical community. Recently, we hosted the first multidisciplinary women’s health symposium and invited obstetricians, gynecologists, behavioral health professionals and nurses to attend. Research projects in women’s sexual medicine have resulted in presentations in international meetings – The World Congress of Sexual Medicine in Beijing, China; The World Association of Sexual Health in Prague, Czech Republic; and annual clinical/scientific meetings of American professional societies such as ACOG and AASECT.

We completed a sponsored research project investigating the role of a pelvic floor training device in resolving urinary incontinence and improving sexual satisfaction for women. Through collaborations with the University of Arizona, we are currently conducting research to define the vaginal microbiome in women who use alternative types of pelvic floor strengthening, such as the jade egg – thus addressing current topics of public interest as well as furthering scientific knowledge in Women’s Health.

Our unique model of diagnosis and treatment incorporates programs that educate, empower and encourage personal growth, sexual discovery and healing for women. The Program looks beyond a singular medical, pharmaceutical or behavioral therapy, and instead integrates all approaches from a mind body perspective.
Women’s Health Institute

The Women’s Health Institute takes a unique approach to women’s health by combining academic training for obstetrics and gynecology residents and fellows with experienced board-certified faculty physicians. This allows the practice to provide advanced care for complicated women’s health issues as well as routine exams.

Our Women’s Health Institute is a key resource in central Phoenix because Banner University Medical Center Phoenix is the primary referral site for high-risk and complicated women’s services. The Institute has accomplished surgeons to perform the most complex surgeries as well as routine well woman care.

**Women’s Institute Locations**

1441 N. 12th St.  
Phoenix, AZ 85006  

155 E. Warner Rd.  
Gilbert, AZ 85296  

7555 E. Osborn Rd.  
Scottsdale, AZ 85251

**Schedule an appointment at all 3 locations:**  
602.521.5700
Integrative Medicine Program

The Integrative Medicine in Residency Program is a 200-hour competency-based, online curriculum in integrative medicine designed for incorporation into residency education. It is currently used in family medicine, pediatrics, and psychiatry residencies across the country.

Banner University Medical Center Phoenix is the first Obstetrics-Gynecology program to implement this curriculum. The curriculum includes topics in integrative medicine such as nutrition, exercise, supplements, botanicals and herbal medicine, energy medicine, and manual medicine. It also has a strong focus on resident health and well-being, with the goal of developing physicians who model the healthy lifestyle they learn about, have a positive sense of well-being, and are relationship-centered in their approach to medical care.

Neonatal Intensive Care Unit

Banner University Medical Center Phoenix originally opened in 1911 and was then called Arizona Deaconess Hospital. When a new hospital was built in 1923, it had room for 105 patients, five operating rooms and a special obstetrical delivery unit and Arizona’s first incubator. The hospital has always been a leader in obstetrics, and in the 1960s opened a neonatal intensive care unit and hired the state’s first neonatologist to care for premature babies. When BUMCP opened the NICU in 1964, Arizona went from 40th in infant mortality to fifth within 10 years. The hospital already had been well-known for its promotion of mother-baby bonding, a practice it had been following since the 1940s. BUMCP has delivered more high order multiples – triplets, quadruplets, and quintuplets – than any other facility in the world and in 2007 sextuplets were delivered here. The six babies and mom did fine.

Today the hospital’s Labor and Delivery and ultrasound departments use state-of-the-art equipment and software to ensure patients receive the most recent innovative technology. Services range from basic fetal testing to complex therapeutic procedures, including identification of the need to perform fetal surgery while the baby is still in the womb. BUMCP also provides comprehensive care to the families of developing babies diagnosed with a congenital defect.

BUMCP is certified as a Level III Perinatal/Neonatal Center by the Arizona Perinatal Trust, which allows the hospital to care for patients with Obstetrical/Neonatal medical conditions at different stages of pregnancy and early neonatal gestation. It offers the very best in education and support. BUMCP NICU is also an active center of medical and nursing education; training tomorrow’s medical and nursing providers. Additionally, BUMCP is active in NICU research participating in and creating multiple trials both in Arizona and across the United States.
Nursing

Banner University Medical Center Phoenix holds the recognition of being designated as a Magnet facility, a prestigious status awarded to health care organizations in recognition of nursing excellence. BUMCP has been awarded this distinction since June 2005 by the American Nurses Credentialing Center. Magnet certification is based on provision of a cultural foundation focused on nurses’ involvement and decision-making to deliver quality and safe nursing care to achieve positive patient outcomes. We promote nurses’ professional growth, enlist enthusiasm for evidence-based care and process improvement, and enhance collegial relationships between all team members. Approximately 9% of all hospitals nationwide have attained Magnet status.

BUMCP is certified by the Arizona Perinatal Trust (APT) as a Level 3 Perinatal facility, which recognizes our ability to provide care for pregnancies of all gestational ages. Whether low-risk or high-risk, we recognize that every birth is a unique experience and work to provide that special memory for patients and families through comprehensive specialty care, family education and support. In 2016, we were also awarded Specialized Service recognition for our high-risk Accreta Program, which is currently the only such program in Arizona. BUMCP Perinatal nurses & physicians had recognized the community need and worked together to create & implement a comprehensive interdisciplinary program that is providing excellent outcomes.

Our Women’s Institute Inpatient service consists of OB Triage, Labor & Delivery, Antepartum, Postpartum/Nursery, NICU, and GYN/GYN Oncology units. Within this diversity of clinical subspecialties, there is concentrated emphasis on collaborative communication, continual learning, evidence-based practice & research. Being a recipient of the IBCLC Care Award, a global recognition for lactation support, is one example of this synergy. Our nursing staff includes RNs, Patient Care Assistants, Surgical Techs, Lactation Consultants, Educators, Clinical Nurse Specialists, and Unit Leaders. Many of our nurses have achieved additional certification in their specialty, as well as have advanced in the Clinical Ladder program. In collaboration with physicians, our nurses also deliver needed specialty care to pregnant patients housed outside of the perinatal service through provision of a co-management model of nursing care or through individual nursing consultations.

Our Women’s Institute Outpatient service is elevating the standard of care for women in Arizona and beyond with a delivery model that promotes collaboration through a multidisciplinary approach to care. Its services span everything from routine obstetrics and gynecology, to the more complex maternal-fetal medicine, breast health, diseases of the female reproductive system, menopause management, pelvic pain, sexual health, and more. Physicians, Nurse Practitioners, Medical Assistants, schedulers, office staff, and Practice Leaders comprise the healthcare team. Increased collaboration between the inpatient and outpatient services continues to occur in order to provide seamless care delivery to patients.

Our work environment is one that is built on collaboration, learning and mutual respect. Teamwork among nursing, resident physicians, attending physicians, outpatient and ancillary departments is the basis for our care delivery model.

For all our patients, we are dedicated to providing quality, individualized, holistic nursing care in a compassionate, family-centered environment.
Banner Health runs one of the largest multidisciplinary simulation education programs in the United States to train physicians, nurses, allied health care professionals and emergency responders to treat a range of patients, from infants to adults. We are transforming health care delivery through simulation, learning, and research across our four locations in Mesa, Tucson, and Phoenix in Arizona and Loveland in Colorado.

At Banner’s state-of-the-art simulation centers, we use mannequins, simulators and virtual-reality programs to train the next generation of health care professionals in an environment that mirrors real-life medical situations. Hundreds of medical students, residents, physicians and nursing staff are educated using simulations each year.

Our cutting-edge medical mannequins breathe, blink, code, seize, bleed, speak and even give birth, all with programmable complications to simulate potential medical conditions. Participants can practice their response to critical medical emergencies and hone their skills in commonly performed procedures such as inserting chest tubes or central lines.

With this training, health care providers can acquire the skills needed to deliver the highest quality of patient care.

Key Features Offered
- Only testing center in Arizona for Fundamentals of Laparoscopic Surgery and Fundamentals of Endoscopic Surgery testing
- Birthing Suite and other simulation suites
- Operating room
- 24/7 Virtual Reality room for Residents
  - Laparoscopic and Hysteroscopic Trainers
  - OB Ultrasound trainer
  - daVinci robotic virtual trainer

Simulation Medical Center Staff

Karen Josey, M.Ed., BSN, CHSE
Sr. Director of Simulation – Banner Health

Carrie Brandon, MD, RN
Simulation Director

Linda Tinker, MSN, RN, CHSE
Simulation Director

Lorena B. Smith, MSN-L, BSN, RN
Simulation Director

Roxann R. Edelman, M.ED., RNC
RN Director – Clinical Education
The World Health Organization estimates that about 830 women die each day from preventable causes related to pregnancy and childbirth. Nearly 99 percent of all maternal deaths occur in developing countries. Two thirds of these occur in sub-Saharan Africa.

The University of Arizona has partnered with the University of Buea in Cameroon to help address this maternal health disparity. Utilizing a model that has proven successful through the 1000+ OBGYN Project, the University of Arizona and University of Buea faculty have come together to start the first English-speaking OBGYN residency program in Cameroon. Collaborative meetings in both countries over several years have culminated with the signing of the Memorandum of Understanding in 2015 and the approval and support from the Cameroonian Ministry of Higher Education and Ministry of Health in 2016.

The first class of Cameroon residents at the University of Buea will begin in Fall 2018. In preparation, the Cameroon-Arizona Partnership has been active in securing resources – financial, educational, people, and material. An alliance with Project CURE has helped secure donated medical equipment of supplies and ongoing efforts with the community in Arizona continues to help bolster other resources. For more information, please see cameroonarizonapartnership.org and 1000obgyn.org.
Quality and Patient Safety Unit

The Women’s Institute utilizes a multidisciplinary team model to oversee quality and patient safety outcomes in order to deliver reliable, value-based care. Quality indicators are identified annually by the leaders of the specialty areas that comprise the Women’s Institute. These areas include OB, NICU, Well Newborn, OB Anesthesia, GYN/GYN Oncology, and The Women’s Center Clinic.

Inpatient indicators such as management of postpartum hemorrhage, safe surgery compliance, infection rates, timeliness of antibiotic administration to infants exposed to chorioamnionitis, frequency of use of general anesthesia for cesarean sections and identified Vermont Oxford indicators are examples of the types of clinical outcomes that are reviewed and trended. Outpatient indicators include depression screening, postpartum follow-up rate, no show rate, and referrals made to other specialties.

Additionally, the Joint Commission’s Perinatal Core Measures, patient satisfaction, length of stay, and the general hospital quality indicators (CAUTI, CLABSI, falls, etc.) are integrated into our quality monitoring model as well. Our Specialty Programs (Accreta, Fetal Surgery, Virtual ICU & OB Trauma) also have identified indicators that are reviewed.

Sustained results that consistently meet or exceed benchmark are our goals. Items that are not meeting identified targets are discussed and assigned to defined owners for investigation, correction and monitoring. Our Women’s Institute team connects to the facility’s Quality & Patient Safety Council through a defined reporting structure.

Pregnancy and Cardiovascular Disease

The Department of Obstetrics and Gynecology works closely in collaboration with the Division of Cardiology in identifying women at risk for heart disease. There are traditional risk factors that put women at risk for cardiovascular disease, but there is more research being done identifying sex-specific risk factors, particularly risk factors that appear during pregnancy, that uniquely identify women at a higher risk of cardiovascular disease within the following 10 years. Together we are identifying women at risk and treating them to reduce their future risk of heart disease and stroke. Our approach to the life-long care of women is a unique collaboration of the Women’s Institute and the Heart Institute.

Dr. Martha Gulati serves as the Chief of Cardiology at University of Arizona Phoenix, but serves also as the Center Director of the Women’s Heart Center at BUMCP. This is the only women’s heart center in the city of Phoenix and in the state of Arizona. She is recognized as an international expert in the prevention of cardiovascular disease in women, with a focus on female-specific risk factors for heart disease, with an emphasis on adverse pregnancy outcomes. Identification of women at risk at the earliest stages gives us the greatest opportunity for intervention and the ability to change the trajectory of future risk for cardiovascular disease.
Medical Student Education

Banner University Medical Center Phoenix is a core clerkship site for The University of Arizona College of Medicine Phoenix. The third-year medical students spend 6 weeks working with our outstanding faculty and residents during their core clerkship in obstetrics and gynecology and fourth year students return for a variety of electives. We also host visiting students from medical schools across the country.

Under the direction of our clerkship director Laura Mercer, MD, the University of Arizona College of Medicine Phoenix continues in its successful path through LCME accreditation as an independent allopathic medical school. The ongoing innovation of a new curriculum places an emphasis on adult learning theory with an integration of a multi-disciplinary, team-based care in an evolving health care system. No longer do students sit through “lectures”. Instead, they are engaged in hands-on problem solving based on real and simulated patient experiences. Through a flipped-classroom model, learners do their reading and preparation before didactic sessions and have access to multimedia resources for self-study. When brought together in teams with faculty mentors, they participate in case-based care and hands-on simulation of obstetric and gynecologic clinical experiences. This careful and novel approach augments a robust exposure to the field of obstetrics and gynecology through participation in patient care at Banner.
OBGYN Residency Program

Our Program
- 9 residents each year
- No night float; specialized night rotation for interns
- Night call at only one hospital
- Traditional 24-hour call schedule years two through four

Teaching & Education
- Clinical clerkship site for University of Arizona
- State-of-the-art simulation education and training at SimET Center with DaVinci trainer at Banner-University Medical Center Phoenix
- Dual-console DaVinci robots in operating rooms
- Daily protected educational lectures with catered lunch
- Consistently at or above 50th percentile nationally for operative numbers

Benefits
- Salary stratified by year of experience: Residency $55,000 - $63,000, Fellowship $66,000 - $73,000
- Third-year and fourth-year elective time
- Daily catered lunch with additional meal card allowance
- Four weeks of paid vacation annually, with additional days off for holidays and discretionary days
- Free health insurance for residents and their families
- Annual resident retreat
- Specialized OB/Gyn resident call rooms adjacent to L&D
- Moonlighting permitted for qualified upper-level residents
- Financial assistance with board and USMLE costs
- Financial assistance for global health opportunities

Patient Population
- 5,500 deliveries per year
- Widely diverse patient population
- Central tertiary care center with large referral area
- Work side-by-side with other residency programs including: General Surgery, Orthopedic Surgery, Psychiatry, Internal Medicine, Med/Peds, Family Medicine, Emergency Medicine and fellows across many specialties

Research
- Supported research by faculty mentors in field of resident’s choice
- Faculty assistance with statistical analysis
- Funding provided for traveling to presentations

Beyond Residency
- Demonstrated success in fellowship match across all subspecialties
- About 50 percent of graduates stay in Arizona to practice
Fellowships

Maternal Fetal Medicine Fellowship
The Maternal-Fetal Medicine (MFM) fellowship at Banner University Medical Center Phoenix is the first MFM subspecialty program for Banner, the city of Phoenix and the University of Arizona in Phoenix. The training program complements and elevates the current residency training program at Banner University Medical Center. This is a 3-year specialized training program for the care of complicated pregnancies, research methodology, education, and teaching. The mission of the fellowship is to provide clinical focus, stimulating research, develop master teachers, develop compassionate communicators, leadership in self and others, and to develop versatility and special interests for the fellow.

The fellowship takes 1 fellow per year and provides them with 18-24 month of clinical experience plus 12-18 months of research. The fellows rotate on Labor and Delivery, High-Risk antepartum, Adult ICU, Neonatal ICU, ultrasound imaging, outpatient MFM, genetics, pediatric cardiology, and elective time. The fellows will pursue additional clinical experience based on their interests, research, and career development. The fellows have a faculty research mentor who helps in developing hypothesis-based research questions, methodology to answer questions and to create projects to test that hypothesis.

During their time, fellows are exposed to and perform advanced procedures. These include amniocentesis, chorionic villous sampling, percutaneous umbilical cord sampling, and intraterine transfusions. Fellows are exposed to fetal interventional procedures such as bladder shunt and chest tube placement, radio frequency cord ablation, and ex-utero intrapartum therapy (EXIT) procedures. Additional time is spent within the Center of Excellence for Placenta Accreta taking care of abnormally invasive placentation with specialists from interventional radiology, trauma surgery, anesthesia, and gynecology-oncology. These specialized procedures enhance the fellow’s ability to collaborate with multiple specialties and engage change in a large health care system.

There are several unique aspects of our MFM fellowship program. The fellow spends a 1-month elective creating and utilizing Ob simulation with the Banner Simulation Center in Mesa AZ. There are several national conferences that the fellow will participate in here in Phoenix including the Society of Maternal Fetal Medicine’s Obstetric Critical Care course in the fall and the Obstetrical Challenges Conference during the spring each year. The fellows are encouraged to pursue an advanced degree at the University of Arizona in an area of focus. Opportunities include a Master’s of Science, Biostatistics, as well as the Masters of Public Health. Lastly, fellows receive additional training, mentoring and coaching in leadership with Dr. Michael Foley and the Society of Maternal-Fetal Medicine’s Leadership Academy.

The core faculty includes Drs. C Kevin Huls M.D., M.Sc., Jordan Perlow M.D., Roman Starikov M.D., Kisti Fuller M.D., Melissa Herbst-Kralovetz Ph.D. and Michael R Foley, M.D.
Minimally Invasive Gynecologic Surgery Fellowship
The BUMCP MIGS Fellowship Program is a comprehensive 2-year program designed to advance the fellow’s surgical skills and confidence level in multiple areas of surgical gynecology. Our full academic integration with the University of Arizona College of Medicine allows for ample research, academic and didactic opportunities to enhance the fellow’s learning and training experience.

Our comprehensive curriculum encompasses all facets of MIGS, including vaginal hysterectomy, hysteroscopic procedures, in-office endometrial ablation and tubal occlusion procedures, laparoscopy and robotics. Our diverse core faculty includes surgeons from several specialties allowing for exposure to a variety of different procedures and techniques to maximize the fellow’s surgical repertoire. During the two-year program, the fellows rotate through the general gynecology service, general surgery, colorectal surgery, urology, female pelvic medicine reconstruction surgery and gynecology-oncology. At the end of their training program, fellows have the ability to function as independent gynecologic surgical consultants.

Fellows actively participate in teaching of OB/GYN residents and medical students. The fellows present a Grand Rounds topic related to MIGS twice a year and conduct daily morning GYN Rounds with the residents.

Our unique, state-of-the-art Simulation Center offers our fellows a unique opportunity for surgical simulation training, allowing 24/7 access to hysteroscopic, laparoscopic and robotic skills set training. We are the only simulation program in the world that is accredited as an entire system. As such, each fellow is expected to present every year at the national level with the intention of submitting a manuscript for a peer review publication.

We also offer a Master of Science (MS) degree in CTS from the University of Arizona. The Clinical Translational Sciences (CTS) Graduate Program is designed to provide a strong foundation in clinical translational sciences for post-baccalaureate and postgraduate candidates. The mission of the Master’s Program is to provide an avenue for the fellow to gain more experience in and exposure to the diverse areas of the clinical translational science and to offer a mechanism to obtain in-depth knowledge in a specific area of biomedical research. To this end, fellows participate in a specific laboratory or clinical research project working with a CTS faculty mentor.

The MIGS core faculty are Dr. Jamal Mourad, Director; Dr. Kelly Roy, Associate Director, and Dr. Javier Magrina, Consultant.
Research and Scholarship

This past academic year has been outstanding from the perspective of the department’s efforts to increase scholarly activity. There have been two major concurrent program efforts. The first objective focused on enhancing the research program for the residents who are required to complete a scholarly project during their training. All of the elements of success are in place including written Resident Research Guidelines, access to expertise in research design, funding, statistical analysis, and editing. The residents entering into the program now are required to submit a manuscript along with a poster, an abstract and PowerPoint presentation for the Annual Resident Research Day. The topics, enthusiasm, and productivity have dramatically increased. Our second effort was at a faculty level to have an increasing relationship and integration with the College of Medicine-Phoenix (COM-PHX). Dr. Melissa Herbst-Kralovetz is a basic science scholar who has a joint appointment in Obstetrics and Gynecology; she dedicates time to this department and assists Dr. Foley in efforts examining the microbiome of the female genital tract in health and disease. We have a collaborative scientific program to include multiple disciplines at the COM-PHX looking at the female microbiome.

Scholarship is one of the major components of the Women’s Institute. Under the leadership of Dr. Michael Foley, focused steps have been taken to demonstrate the importance of scholarly activity. There is a broad definition of scholarship which includes, but is not limited to research. Designing innovative educational programs, actively participating in educational organizations at a local, regional and national level, quality improvement projects and any contribution to the scientific literature are examples.

A Scholarship Subcommittee meets quarterly under the direction of Dr. Nichole Mahnert to review scholarly activities of the residents and faculty such as poster presentations, papers published, as well as to review policies which could enhance our scholarly involvement.

The Obstetrics and Gynecology Department physicians and nurses at Banner University Medical Center Phoenix are actively engaged in scholarship on a local, national, and international level. This includes authoring or editing a book or a book chapter, independent research or in collaboration with a resident, lecturing at a conference, developing educational materials, writing an article for a peer reviewed journal, etc. Banner University Medical Center takes pride in the recognition of our scholarship and has established ways to fund residents’ travel and provides an annual award given at our House Commencement in June.

Laura Wilkes
(general research questions)
602.839.3266

Nichole Mahnert, MD
Director of Research
602.521.5700
2018 Graduating Chiefs Research Projects

• Janel Brink, MD – Open Versus Robotic-Assisted Transabdominal Cerclage Placement: A Comparison of Obstetric and Surgical Outcomes

• Sarah Detlefs, MD – Comparative Use and Knowledge of Preconceptional Folic Acid Among Obstetric Patients in Phoenix, Arizona

• Lindsay Emerick, MD – Comparison of Performance of Vaginal Birth After Cesarean Prediction Model “Early in Pregnancy” with VBAC Prediction Model “Prior to VBAC” Attempt

• Kendra Gray, DO – Length of Stay and Balloon Catheters for Cervical Ripening in the Outpatient Setting in Moderate Risk Term Populations

• Trevor Quiner, MD – The Global Burden of Obesity on Pregnancy Outcomes in the Developed World

• Hailey Robbins, MD – Analysis of Racial Disparities in the Treatment and Outcomes in Advanced Stage Ovarian Cancer

• Kelley Saunders, MD, MPH – Antibiotic Prophylaxis in Surgical Sterilization: Following the Recommendations

• Rachael Smith, DO – Improving Obstetric Hemorrhage Morbidity and Mortality by a Checklist Based Management Protocol
Banner University Medical Center Phoenix
2018 Educational Conferences

Women's Health Summit
Banner University Medical Center Phoenix and the University of Arizona - College of Medicine, Phoenix are proud to offer this inaugural conference on women’s health. The conference is endorsed by AAGL.

When: September 21 and 22, 2018
Where: Talking Stick Resort and Spa
Scottsdale, Arizona
Host: Jamal Mourad, DO

Who should attend?
General OB/Gyns, MIGS Surgeons, MIGS Fellows, Internal Medicine Physicians, Family Medicine Practitioners, Nurse Practitioners and PA’s, OB/Gyn Nurses, OB/Gyn Residents and Medical Students

To register, please call: 602.230.2273 (CARE) or www.bannerhealth.com/230CARE

This innovative and comprehensive program will address multiple disciplinary topics related to all aspects of Women's Health. We will be hosting a Hands-On Cadaveric Dissection Lab, TLH Simulation Lab, in addition to didactic sessions with nationally recognized speakers and surgeons. Featuring distinguished local faculty from Banner Health/University of Arizona as well as guest faculty from the Mayo Clinic, Columbia University, Johns Hopkins and Harvard.

In collaboration with the Bariatrics Division, we will be offering a course entitled, Contemporary Weight Management Certification Course. This course will give attendees the opportunity to earn certification to offer these services in their offices.

Critical Care in Obstetrics - An Innovative and Integrated Model for Learning the Essentials
Banner University Medical Center Phoenix, the Society for Maternal Fetal Medicine, and the University of Arizona College of Medicine Phoenix are proud to offer the fifth annual hands-on and very popular symposium in Critical Care in Obstetrics.

When: November 15-17th, 2018
Where: Talking Stick Resort and Spa, Scottsdale, Arizona
Host: Michael R Foley, MD

This innovative and integrated program will address essential learning in the discipline of critical care obstetrics. Integrating pre-recorded digital didactive sessions (ensuring materials), virtual on-line simulations, case-based facilitated group learning and bedside preceptor-directed simulation drills form the basis for this progressive and original program.

Who should attend?
• MFM Physicians and Fellows
• Emergency Room Physicians
• Certified Nurse Midwives
• Practicing OB Physicians
• OB/Gyn Residents
• Nurse Practitioners
• OB Hospitalists
• Medical Students
• Obstetrical Nurses

To register, please call: 602.230.2273 (CARE) or www.bannerhealth.com/230CARE
OB/GYN Faculty

These physicians make it possible for The Women’s Institute to be able to say we are
Making health care easier, so life can be better.

Farshad Agahi, MD
Mohammad Ahmad, MD
Mariana Amaya, MD
Martin Arellano, MD
Lamia Atasi, MD
Randall Ball, MD
Belinda Beck, MD
Ivor Benjamin, MD
Alka Bennion, MD
Snehalkumar Bhoola, MD
Matthew Borst, MD
Cesar Castro-Marin, MD
Dana Chase, MD
William Chavira, MD
Megan Cheney, MD
Curtis Cook, MD
Scott Crawford, MD
Emily Cyr, MD
Heather Dalton, MD
Gregory Desanto, MD
Lydia Ehlenberger, MD
John Elliott, MD
Laurie Erickson, MD
Kari Evans, MD
Joel Falk, MD
Asal Fathian, MD
George Figueroa, MD
Michael Foley, MD
Kisti Fuller, MD
Caroline Geer, MD
Denise Gentles-Ford, MD
Jill Gibson, MD
David Glassman, DO
David Greenspan, MD
Kassondra Grzankowski, MD
Ravindu Gunatilake, MD
Jesse Hade, MD
Carol Hahn, MD
Karen Hannaford, MD
John Harpenau, MD
Lexine Hebets, MD
Michael Hervey, MD
Jeffrey Higley, MD
Amanda Hill, MD
Kathleen Horowitz, MD
W. David Huff, MD
Madison Husttedt, MD
Paul Isaacson, MD
Brock Jackson, MD
Mike Janicek, MD
Mark Johnson, MD
Laurel Kubby, MD
Kathleen Kuhlman, MD
Steven Laband, MD
Michael Leovic, MD
Monique Lin MD
Kristin Livingston, MD
Brian MacArthur, MD
Javier Magrina, MD
Nichole Mahnert, MD
Shazia A. Malik, MD
Paul Marshburn, MD
Staci Mayer, MD
Michael Medchill, MD
Laura Mercer, MD
Hugh Miller, MD
Drew Moffitt, MD
Bradley Monk, MD
Jean Moon, MD
Janet Moore, MD
Jamal Mourad, DO
Linda Nelson, MD, PhD
Steven Nelson, MD
Jack Obadia, DO
Chijioke Offor, MD
Chien Oh, MD
David Orenstein, MD
Erin O’Sullivan, MD
Avinash Patil, MD
Stephen Pedron, MD
Jordan Perlow, MD
Kate Peterson, MD
Enriqueta Porras, MD
Celeste Pottorff, DO
Marquia Redden-Grier, MD
Deanna Rolstead, MD
Mary Romero, MD
Kelly Roy, MD
Kathleen Schwartz, MD
Dennis Scribner, MD
Michael Smith, MD
Ana Spence, MD
Diane Spieker, MD
Eleanor Stanley, MD
Roman Starikov, MD
Nicole Stegman, MD
Daniel Stone, MD
Keri Sweeten, MD
DeShawn Taylor, MD
Mani Tehranchi, MD
Neil Trachtenberg, MD
Michael Urig, MD
Felipe Videla, MD
Debra Wickman, MD
Danielle Williams, MD
Marneece Williams, MD
Lyndsay Willmott, MD
Shana Wingo, MD
Candice Wood, MD
**Key Faculty Scholarship**

**Michael R Foley, MD**

**National and International Presentations**
- Symposium Medicus- Alaska- Critical Care Symposium (DKA in Pregnancy, Cardiac Disease in Pregnancy, Hypertensive Emergencies during Pregnancy, Ancient Wisdom for Modern Medicine- Preventing Burnout, and Pulmonary Edema in Pregnancy)
- Ancient Wisdom for Life Fulfillment for Medical Program Coordinators- BUMCP
- Society for Maternal Fetal Medicine Academy for Leadership and Development- National Maternity Hospital in Dublin, Ireland
- Midwestern University “Finally Understanding the Clotting Cascade and DIC during Pregnancy”- Scottsdale, AZ October 2017
- Central Association OBGYN National “Ancient Wisdom for Modern Medicine-Igniting Your Passion as a Health Care Provider”-Scottsdale, AZ
- Resident Retreat- Emotional Intelligence 2.0, October 2017
- SMFM Fellows Retreat-Ancient Wisdom for Modern Medicine-Chicago, IL, October 2017
- Critical Care in Obstetrics-Hypertensive Emergencies- Scottsdale, AZ, November 2017
- Critical Care in Obstetrics-Finally Understanding DIC Scottsdale, AZ, November 2017
- Ancient Wisdom for Modern Medicine-Banner Day of Learning BDMC Mesa, AZ, November 2017
- Medical Complications in Pregnancy: Hypertensive Emergency
- Cardiac Disease in Pregnancy-Risk Analysis
- Hypertensive Emergencies during Pregnancy - New Thinking for an Old Problem, Glendale, AZ April 5th, 2018 Obstetric Challenges
- SMFM Academy for Leadership and Development

**Books/Chapters/Papers/Publications**
- Up to Date on line publication “Cardiovascular Physiology during Pregnancy” Up to Date on line publication “Cardiac Transplant and Pregnancy” October 2017
- Seminars in Perinatology Co-Editors: Roman Starikov, Michael Foley 1) Multidisciplinary Obstetric Critical Care Delivery- The concept of the “Virtual” Intensive Care Unit. Issue Feb 2018
- AJOG Feb 2018 Vol 218, No 2 SMFM” Putting the M back in MFM: Addressing education about disparities, maternal outcomes and care” L Moroz MD, LE Riley MD, M D’Alton, MD, HL Brown, MD, M Foley MD, CR Graves MD, J Sheffield MD, M Zerden, MD MPH, A Bryant MD, MPH

**National Leadership Positions**
- Board Member - SMFM Pregnancy Foundation

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**Jamal Mourad, MD**

**National and International Presentations**
- AAGL 2017 Plenary; “TAC tips and Tricks"
- Minimally Invasive Gynecology (Springer, 1st edition) Book Chapter 32: Complications of Laparoscopy
- Cadaveric Dissection Lab - Fellowship in Minimally Invasive Gyn Surgery, Advance dissection lab, University of Arizona College of Medicine, Phoenix May 2018
- Robotic-Assisted Trans-abdominal Cerclage: A Triplet Pregnancy, Video presented at AAGL Global Congress, Washington DC, November 2017
- “Shark Tooth Technique” for Tissue Extraction, Video presented at AAGL Global Congress, Washington DC, November 2017
Key Faculty Scholarship

Laurie P Erickson, MD

Poster Presentations

- Predicting Postpartum Hemorrhage: A Retrospective Study. Poster presented at ACOG District VIII Meeting, September 2017
- Improving Obstetric Hemorrhage Morbidity and Mortality by a Checklist Based Management Protocol. Poster presented at ACOG District VIII Meeting, September 2017
- The Use of Standardized Patients to Increase Medical Student Awareness of and Confidence in Screening for Human Trafficking, Poster at CREOG/APGO meeting in National Harbor, February 2018
- Safe Surgery Education: Improving Patient Care on Labor and Delivery Units. Poster presented at ACOG April 2018.

Leadership and Committee Membership

- University of Arizona COM Phoenix Student Progress Committee
- BUMCP Medical Executive Committee
- BUMCP Peer Review Committee
- BUMCP Credentials Committee
- BUMCP OBGYN Committee
- BUMCP OBGYN Peer Review Committee

Laura Mercer, MD

National and International Presentations

- Improving Obstetric Hemorrhage Morbidity and Mortality by a Checklist Based Management Protocol
- Establishment of the First English-Speaking OBGYN Residency Training Program in Cameroon
- Case Report: Development of Primary Urachal Carcinoma following Ovarian Carcinoma
- “Makeover Your Life with These Simple Hacks!” Jill Sutton, Laura Mercer, Alice Chuang; Workshop at APGO FDS, Florida, Jan 2018
- “Hacking Health Education: An Open-Source Makeover for the Health Care Curriculum Brian MacArthur, Laura Mercer, Christopher Morosky; workshop at APGO FDS, Florida, Jan 2018
- “Grading Your Grading” Christopher Morosky, Laura Mercer, Corinne Bazella; Workshop at APGO FDS, Florida, Jan 2018

Nichole Mahnert, MD

Books/ Chapters/ Papers/ Publications


C. Kevin Huls, MD

Publications

**Shazia A. Malik, MD**

**National and International Presentations**
- Faculty speaker: “POP, Diagnosis and Management”

**Books/ Chapters/ Papers/ Publications**

**National Leadership Positions**
- AUGS (American Urogynecology Society) Membership Committee Member

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**Dan Stone, MD**

**Presentations and Posters**
- “A Comparison Between Medicare Billing and Reimbursement for Gynecology Trained Versus Urology Trained Female Pelvic Medicine and Reconstructive Surgery Providers From 2012 To 2014.” Stone DE, Dwarica D, Quiroz LH. Poster Presentation, Pelvic Floor Disorders Week (AUGS Annual Meeting), Providence, Rhode Island
- “Anterior and Posterior Compartments Outcomes: Does the Routes Of Sacrocolpopexy Matter?” Fatehchehr S, Stone DE, Quiroz LH. Poster Presentation, Pelvic Floor Disorders Week (AUGS Annual Meeting), Providence, Rhode Island

**Lectures**
- Abrazo Family Medicine Residency Program
  - “PFDs for PCPs” August 2017
  - “Abnormal Uterine Bleeding” February 2018
- BUMC OB/GYN Residency
  - “Urinary Incontinence: Evaluation and Management” August 2017
  - “Fecal Incontinence: Evaluation and Management” September 2017
- PIROG OB/GYN Residency
  - “Pelvic Organ Prolapse: Evaluation and Management” December 2017

**Midwestern University Physician Assistant program**
- “Menopause and Pelvic Organ Prolapse” March 2018