Fellowship in Maternal-Fetal Medicine
Overview

Oregon Health & Science University (OSHU) is the state’s only academic health center. It provides an uncommon array of services from providing the state’s most comprehensive health care, to educating the next generation of clinicians and biomedical researchers, to achieving breakthroughs and innovations.

The Maternal-Fetal Medicine (MFM) Fellowship program at OHSU started in 1982 and a combined MFM-Medical Genetics and Genomics Fellowship in 2018. We seek fellows dedicated to a career in academics who have the potential for substantial contributions to MFM through research and/or education. This program strives to position fellows for career success through a balanced mix of extensive clinical and research training.

Our specific AIM: The OHSU MFM Fellowship desires to create leaders in the field of Maternal Fetal Medicine. We provide a vast array of research, (e.g., Bench, Clinical Outcomes) clinical, (e.g. Maternal, Fetal, Ultrasound, Combined MFM-MGG), and educational opportunities (e.g. teaching residents and student) so that the fellow may reach his/her/their individual career goals while providing ample opportunity to gain board certification in MFM.
Clinical Training

A focal point of the fellowship is our strong clinical training program that provides ample training in ultrasound, inpatient and outpatient obstetric care for medically complicated and critically ill patients, genetics education, and ultrasound guided in-utero procedures. Fellows will graduate as Maternal-Fetal Medicine experts and consultants.

OHSU performs approximately 2,400 deliveries annually of which about 800 are high-risk. The hospital accepts transfers from all of Oregon and parts of Southern Washington, Northern California and Western Idaho.

Ultrasound Training

Hands-on ultrasound training is provided by the MFM faculty and Women’s Imaging Specialist group. Fellows also have the opportunity for additional training in fetal echocardiogram through the Pediatric Cardiology division.

Genetics Training

Fellows will work closely with five board-certified genetic counselors and three board-certified MFM/Genetics faculty.

Intensive Care Training

Fellows will finish the program with experience in critical care obstetrics by rotating through the cardiovascular intensive care unit, which accepts all critically-ill obstetric patients.
**Fetal Therapy Program**

Program Director Brian Shaffer, M.D., spearheads the program, and in conjunction with Doernbecher Children’s Hospital, provides coordinated care to women with complex fetal anomalies throughout Oregon and Southwest Washington. From its inception in 2011 to 2019, the program volume increased from 76 patients to ~400 new patients per year, respectively. The program provides:

- Advanced prenatal diagnostic imaging including ultrasound, echocardiography and fetal MRI
- MFM consultation
- In-utero procedure training and practice as well as thoracentesis, vesicocentesis, thoraco-amniotic and bladder shunt placement, and intrauterine transfusions
- Genetic counseling and testing
- Pediatric subspecialty consultation (i.e cardiology, general pediatric surgery, pediatric CT surgery, urology, neurology, ENT, endocrine, nephrology, hematology, GI, palliative care, etc.)
- Coordination of complex deliveries
- Support and counseling services for patients, siblings and families
- Postnatal follow-up and testing
- Opportunity for fetal anomaly clinical outcomes-based research

A weekly multidisciplinary conference is held to review imaging and diagnostic testing, and coordinate ongoing antenatal and postnatal care.

**MFM/Adult Congenital Heart Disease Program**

A multidisciplinary program directed by Emmanuelle Paré, M.D., (MFM) and Abigail Khan, M.D., (Cardiology) designed to provide care for the increasing volume of women referred to OHSU with complex congenital heart disease. The program includes:

- A weekly multidisciplinary clinic including MFM, adult congenital heart disease cardiologists, cardiac disease geneticists and anesthesiologists
- A monthly multidisciplinary conference to coordinate antenatal, intrapartum and postnatal care
Research Opportunities

The goal of our fellowship is to produce academic scientists with strong clinical aptitude. The division is committed to excellence in research and adequate time and mentorship necessary for fellows to embark on a successful academic career.

- OHSU is an international leader in multidisciplinary collaboration on perinatal health and the developmental origins of human adult disease
- The OBGYN department ranked #6 for 2015–2016 by the NIH Blueridge rankings
  - Antonio Frias, M.D. is the only recipient of two awards from the NIH Human Placenta Project. He was awarded $7 million to support five years of translational non-human primate and longitudinal human studies at OHSU.
  - The division is also supported by the Gates Foundation, March of Dimes, numerous institutional awards and some industry funding.
- Up to 18 months are devoted to protected fellow research training
- Clinical and basic science research opportunities and mentors are readily available to fellows
- All prior fellows have successfully completed and published their thesis project by the third year of fellowship
  - Fellows graduate with multiple first authorship manuscripts, book chapters and reviews

OHSU has the infrastructure in place to perform clinical, translational and basic science projects. There is a collegial relationship with other departments and institutes at OHSU:

- Oregon National Primate Research Center (ONPRC)
  - One of seven NIH-supported primate research centers in the United States conducting basic science and translational research
  - Allows utilization of non-invasive imaging to understand reproductive health in-utero and during the neonatal period
  - Prior MFM and neonatology fellows have completed their fellowship thesis projects at this site
- Oregon Clinical and Translational Research Institute
- Knight Cardiovascular Institute
- Center for Developmental Health
- Bob and Charlee Moore Institute for Nutrition and Wellness
- International MFM Research Opportunities in South America and Africa
### Fellowship Education

As education is a top priority, fellows have protected time for all educational activities.

### Conferences

Fellow education is highly important; fellows are expected to participate in:

- Annual meetings, including SMFM and SRI
- Weekly Departmental Grand Rounds and M&M, MFM division meeting and fellow didactics, and multidisciplinary Fetal Therapy Conference
- Monthly perinatal ultrasound conference, Oregon Perinatal and Neonatal Network conference and division research meeting
- Bimonthly MFM journal club, joint neonatology and MFM meeting, joint neonatology, pediatric cardiology, and MFM conference, and joint MFM and adult congenital heart disease conference

---

### Human Investigations Program (HIP)

Fellows are required to complete a two-year graduate program that fulfills ABOG requirements for epidemiology and biostatistics. The HIP program offers an integrated clinical and translational research education curriculum to:

- Enhance your career in clinical and translational research
- Gain practical skills in conducting successful research studies
- Connect with faculty who share a commitment to translational research
- Acquire knowledge that directly supports your research and expands your collaboration opportunities
- Increase the number and level of competency of patient-oriented clinical investigators

**There are two tracks within the HIP program:**

- Certificate of Training in Human Investigations: Free, two-year, coursework-based program specifically directed toward creating clinician-researchers. It is an integrated clinical and translational research education curriculum.
- Master of Clinical Research (M.C.R.): A three-year program for clinicians who desire to make clinical and translational research a prominent part of their long-term career goals.

### Chorionic Villus Sampling (CVS)

Training is available, which is tailored to prepare the fellow, if interested, to be proficient in both trans-cervical and trans-abdominal CVS techniques.
Mentorship

Mentorship is provided by the MFM division faculty and fellowship program leaders.

Additional Program Highlights

- Fellows teach residents and health professional students and have the opportunity to develop and strengthen mentorship skills.
- Fellows take call from home, but are expected to be first-call when on call with the support of attending backup to serve as MFM consultants to OHSU and the greater medical community.
- The OHSU MFM faculty is dedicated to providing strong mentorship for the fellow.
- Fellows are offered opportunities to further develop as academic clinicians including lecturing, participating in writing literature reviews, acting as manuscript reviewers, and pursuing either a Master's degree or a certificate in research.
- Fellows enjoy protected time to attend conferences, sit for the general OB/GYN oral board exam, and other opportunities for professional development in MFM (such as the Perinatal Research Society Young Investigators workshop and NICHD Young Investigators Conference).
- The opportunity to see how accurate “Portlandia” actually is while living in one of the most beautiful parts of the country.