




Y. Katherine Bianco

Clinical Associate Professor, Obstetrics & Gynecology - Maternal Fetal Medicine

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICES

- **Obstetrics Clinic**

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Bio

BIO

My clinical interest in pregnancies complicated with birth defects has led my underlying research interests in genomic abnormalities in the human trophoblast carrying to faulty placentation. The latter began with initial work during K12 and KO8 funding. I took a great interest in the human placenta as it carries potential advantages over other tissues sources: first, this highly metabolically active organ is the potential source of many transcripts. Second, the placenta forms at a very early stage of embryonic development, potentially allowing detection of primary alterations as compared to secondary changes that may mask the underlying causal phenomena. Finally, studying early placentation may provide targets for development of novel molecular approaches, such as up-regulate or down-regulate genes, the protein products of which could potentially serve as molecular surrogates for diagnosis and treatment of pregnancy complication such as miscarriages, pre-eclampsia, pregnancy induced hypertension and intrauterine growth retardation. This work has led to the first Trisomy 21, Trisomy 18, trisomy 13 cell lines established from human placentas making it possible to apply gene editing in the early stages of human trophoblast development.

As my primary clinical responsibility involves treating patients needing medical care and support through their high risk pregnancies, I am interested in factors that may impact outcomes, such as prenatal screening and diagnosis, maternal heart conditions, labor and delivery management, and safety approaches for the second stage of labor. In investigating length of labor and approaches to shorten the second stage, I have found methods of improving perinatal outcomes in diverse maternal populations.

With regards to my interest in fetal medicine, I have worked in collaboration with other specialists such as radiologists and pediatric cardiologists utilizing imaging studies to assess and determine successful perinatal care and fetal survival.

CLINICAL FOCUS

- High Risk Obstetrics
- Obstetrics and Gynecology
- Genetics
- Maternal Cardiac Conditions

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Obstetrics & Gynecology - Maternal Fetal Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Global Health ACOG/ US.Gov Fellow Associate, ACOG, (2017- present)
- Diversity Communication Advisory Board (CAB) member, Stanford University SOM, (2016- present)
- Office of the Dean for Faculty Development and Diversity (OFDD) Liaison, Stanford University SOM, (2015- present)

HONORS AND AWARDS

- Peter A. Grannum, M.D Memorial Award". Excellence in Teaching, Yale University (2001-04)
- "Lysosomal Diseases and Brain Scholar Award", Children's Gaucher Research Foundation (2008)
- Outstanding Faculty Award in Medical Student Teaching, UCSF (2009)
- March of Dimes Scholar, "Reproductive Scientist Development Award", NIH/NICHD/ MOD (2011-13)
- Outstanding Faculty Award in Medical Student Teaching, UCSF (2012)
- Outstanding Faculty Teaching Award, UCSF (2015)
- Academy for Leadership and Development Scholar, SMFM (2016)
- Stanford Leadership Development Program Scholar, Stanford University/Stanford Health care System (2018-19)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- OBGYN, American Board of Obstetrics and Gynecology (2007 - present)
- Medical Geneticist, American Board of Medical genetics and Genomics (2011 - present)
- Maternal-Fetal-Medicine specialist, American Board of Obstetrics and Gynecology (2013 - present)

PROFESSIONAL EDUCATION

- Board Certification: Clinical Genetics, American Board of Medical Genetics and Genomics (2011)
- Fellowship, University of California, at San Francisco (UCSF) , Diagnostic Imagine (2006)
- Board Certification: Obstetrics and Gynecology, American Board of Obstetrics and Gynecology (2007)
- Residency: Yale School Of Medicine Office of Student Affairs (2004) CT
- Internship: Yale School Of Medicine Office of Student Affairs (2004) CT
- Board Certification: Maternal and Fetal Medicine, American Board of Obstetrics and Gynecology (2013)
- Fellowship: University of California San Francisco (2008) CA
- Medical Education: Central University of Venezuela (1997) Venezuela

COMMUNITY AND INTERNATIONAL WORK

- Utilization of Obstetrics Simulation to decrease Adverse Perinatal Outcomes

Teaching

COURSES

2019-20

- Obstetrics and Gynecologic Skills Simulation: OBGYN 222 (Win)

2018-19

- Obstetrics and Gynecologic Skills Simulation: OBGYN 222 (Win)

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neonatal-Perinatal Medicine (Fellowship Program)

Publications

PRESENTATIONS

- Implication of Perinatal Zika Infection - National OBGYN Congress (March 22, 2017)
- Periviability - Dept OBGYN, MFM/Research Division (11/4/2017)
- Pregnancy and Spontaneous Coronary Artery Dissection (P-SCAD)
- Trophoblast Genetic Profiling in common Trisomies - NIH/NICHD
- Epigenetic modification through DNA Methylation/Histone modification at the maternal-fetal interface of pregnancies complicated with chromosomal aberration - UCSF
- The role of USP16 in The Down Syndrome placenta and implication for placenta development - SMFM
- Maternal Cardiac Disease (MCD) and Perinatal Outcomes in a Single Tertiary Care Center: Pregnancy and Cardiac Diseases Treatment (PACT) Program Experience - 3rd International Congress on Cardiac Problems in Pregnancy (CPP 2014)