Polycystic ovarian syndrome (PCOS) is the most prevalent endocrinopathy during the reproductive years, affecting 5%–10% of women, and has been classically associated with ovulatory dysfunction and hyperandrogenism. In 2003, an expert conference was organized in Rotterdam, resulting in revised criteria for making the diagnosis of PCOS using two of the following three features: 1) oligo- or anovulation; 2) signs of hyperandrogenism; and 3) ultrasound evidence of polycystic ovaries. PCOS has a genetic multifactorial inheritance and is associated with a high risk of insulin resistance. Women with PCOS are at increased risk for reproductive and medical complications, including infertility as well as the metabolic syndrome, a ubiquitous pathologic constellation of diseases that place patients at a risk of significant morbidity and mortality. The metabolic syndrome includes abdominal obesity, dyslipidemia, hypertension and pre-diabetes, and occurs at an increased overall prevalence rate of 43%–47% in women with PCOS. The National Cholesterol Education Program—Adult Treatment Panel defines the metabolic syndrome based upon three of the five following factors: waist circumference, fasting serum glucose, fasting serum triglycerides, serum HDL-cholesterol and blood pressure. Further, PCOS patients are significantly predisposed to prediabetes and type 2 diabetes. Metformin is an oral biguanide insulin-sensitizing agent, commonly used to maintain blood glucose control in diabetes and also has a role in menstrual regulation, pregnancy and ameliorating the metabolic syndrome.

In this seminar, the association between the metabolic syndrome and PCOS will be reviewed, as well as evidence based medical therapies and non-pharmacologic therapies to reduce medical complications and improve well-being will be outlined.

Biography
Mark P Trolice, M.D., FACOG, FACS, FACE is the Director of Fertility CARE (Center of Assisted Reproduction & Endocrinology) as well as Clinical Associate Professor in the Department of Obstetrics & Gynecology (OB/GYN) at the University of Central Florida College of Medicine in Orlando. He is the past President of the Florida Society of Reproductive Endocrinology & Infertility (REI) and Central Florida OB/GYN Society as well as past Division Director of (REI) at Winnie Palmer Hospital, part of Orlando Health. He is double Board-certified in REI and OB/GYN and has been awarded the American Medical Association's "Physicians' Recognition Award" annually. He was honored as one among the top 5% of doctors in the U.S. He has authored research studies with publications in many leading medical journals and textbooks. He has lectured at numerous physician conferences and patient seminars around the country. In addition he participated in TV news/talk shows, radio, webcasts and newspapers. He is on the Editorial Boards of The Female Patient and OBG Management, and former Advisory Board of Conceive Magazine and Medical Advisory Council of The American Fertility Association. His current book entitled, "Get Pregnant! Science-based strategies to help you finally overcome infertility and have your baby" is due for release in the Fall of 2019.