

Polycystic Ovarian Syndrome Conference

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Studying PCOS through the interaction of hyperinsulinemia and hyperandrogenemia

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Polycystic ovarian syndrome (PCOS), the leading cause of female infertility, occurs in 5-10% of reproductive-aged women and is characterized by hyperandrogenism, oligo or anovulation and polycystic ovaries. Hyperandrogenemia and hyperinsulinemia are believed to play prominent roles in the genesis and progression of PCOS. Previous studies have shown that diet induced obese female mice were infertile and displayed insulin resistance in the energy storage tissues. In contrast, DIO female mice displayed retained insulin sensitivity in the reproductive tissues. It was noted that the DIO female mice exhibited hyperandrogenism; however, the role of high androgen levels in the progression of the reproductive and metabolic pathologies is not well understood and little is known about the precise locations or mechanisms of androgen action. Understanding how and where androgen and or insulin, signaling via the androgen receptor and or insulin receptor, impacts tissues to induce impaired metabolism and fertility in females will have clear health implications.

Biography

Sheng Wu has received her MS degree from Wageningen University, Netherlands and a PhD from University of Victoria, Canada. She has joined Johns Hopkins University School of Medicine as a Postdoctoral Fellow and was promoted to an Assistant Professor in 2013. Her laboratory focuses on working to understand why obesity produces infertility in females and also to explore the contribution of testosterone to the development of infertility and metabolic dysfunction in women. The importance of these findings was recognized by "The Endocrinology Society and The American Physiology Society" from which she received a number of awards.

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