

9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Key Lectures

K-78

Personalized medicine for the embryo and the fetus

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Since the conception of precision medicine has been put forward in reproductive medicine, this idea has been popularized and applied in many specialties. Significant progress has been made toward personalizing the entire process, including diagnosis, treatment planning, and embryo identification, and combining large-scale genetic information data and knowledge discovery can offer better prospects in reproductive medicine. The causes of infertility are various, and many factors

influence the success rates of ART which are complicated; hence, different genetic diagnostic methods of reproductive medicine for the diagnosis of infertility causes and transfer of healthy embryos, needs to be precise. During the last decay, next generation sequencing influenced reproductive medicine to personalize the diagnostic methods.

Prenatal genetic diagnostics and preimplantation genetic diagnosis can and should be expanded to incorporate genetic, genomic and transcriptomic data to develop new approaches to diagnosis and fetal treatment. I would like to review recent advances in prenatal genetic diagnostics and preimplantation genetic diagnosis, the challenges associated with these new technologies such as next generation sequencing and how the information derived from them can be used to personalize and advance fetal care.