

# PERSONALIZED HEALTHCARE MANAGEMENT PROGRAM IN GYNECOLOGY AND OBSTETRICS.

Kovaleva E.V. MD <sup>1,3</sup>, Chernova L.N. MD <sup>1,2,3</sup>, Zhegalova I.V. <sup>1,3</sup>, Agafonov K.I. <sup>1,3</sup>, Suchkov S.V. MD, PhD<sup>1,3,4,5</sup>, Barahoeva Z.B<sup>6</sup> Puhalskaya I.F<sup>6</sup> Kharitonova M.A<sup>6</sup> Maklygina U.U <sup>6</sup> Yakovenko S.A. PhD <sup>6,7</sup>

1 I.M. Sechenov First Moscow State Medical University, Moscow, Russia 2 Moscow Regional Clinical Diagnostic Center for Children, Moscow, Russia 3 The European Association for Predictive, Preventive & Personalised Medicine, Brussels, European Union 4 International Society of Personalized Medicine, Tokyo, Japan 5 Personalized Medicine Coalition, Washington, District of Columbia, United States 6 The Embryology laboratory AltraVita IVF Clinic, Moscow, Russia 7 Lomonosov Moscow State University, Moscow, Russia<sup>7</sup>

*Author:* **Ekaterina Kovaleva**

## **Abstract**

Contemporary healthcare systems can't provide a good level of prediction and prevention of diseases. In past 10 years there has been emerged a new concept called Personalized medicine. It uses individual genomic information and others OMICS technologies to risk assessment, proper diagnosis and targeted treatment.

The Personalized Healthcare Management Program is an approach developing by the Department for Personalized medicine at I.M.Sechenov First Moscow State Medical University provides health monitoring during different stages of life utilizing OMICS technologies. The top priority of the Program is monitoring of personal health based on the individual's genetic details, calculation of risks for disease and the use of predictive models. This Program can be implemented during different stages of life, including preconception and the prenatal period.

The speaker, a gynecologist and reproductive health specialist, will explain how the Personalized Healthcare Management Program can be used in this field of medicine. It's important to include a reproductive health specialist in the maintenance of personal health long before conception. Health management starts immediately after the decision to create a family is made. Each couple making the decision to create a family will be offered a genetic consultation about the possible risks of abnormalities in their offspring. After genetic testing finished, risk assessment and the formation of risk groups are carried out. Then using a panel of biomarkers (proteomic, immunomic and metabolomic screening) the monitoring of personal health is performed (supervision by the multi-specialist team, and the use of mobile technologies).

Genetic screening, medical screening, risk management, and monitoring are shown in a model of Down Syndrome, Beta-thalassemia and familial hypercholesterolemia.

Understanding the importance of changing to a patient-centric personalized view will lead to tremendous changes in future clinical practice. It's clear that the Personalized Healthcare Management Program can be a good basis for creative longevity as a result. It requires the collaboration of a multidisciplinary team of specialists including geneticists, reproductive health specialists, internists, etc.