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**Difficulties of mosaicism interpretation in embryo aneuploidy screening in IVF setting****Igor Pupko<sup>1</sup>, Baiba Alksere<sup>1</sup>, Aigars Dzalbs<sup>1</sup>, Liene Kornejeva<sup>1</sup>, Dace Berzina<sup>1</sup>, Violeta Fodina<sup>1</sup>**<sup>1</sup>Reproductive Medicine and Genetic Clinic iVF Riga, Zala iela iela 1, LV-1010, Riga, Latvia

**E**mbryo aneuploidy screening (PGT-A) using different approaches (FISH, arrayCGH, NGS) has been widely used in IVF setting worldwide. Chromosomal aberrations found in embryos could be as high as 50% from all embryos. Mosaic chromosomal aberrations often seen in embryos are well described. Difficulties in interpreting results are challenging especially when there are no euploid embryos suitable for transfer. Several guidelines are available and they all state that euploid embryo should be preferred over aneuploid or mosaic aneuploid embryo. In case of mosaic embryos, chromosomal aberrations including chromosomes 13, 18, 21, as well as chromosomes which are linked with uniparental disomy, should be excluded. Embryo self-rescue is known mechanism, which in most cases manages to remove cells with aneuploidy and continue development from mosaic aneuploid embryo to child with normal karyotype in up to 80% pregnancies. The experience of our clinic has allowed to accumulate knowledge about the mosaic aneuploid embryo PGT-A data interpretation. Data interpretation should be done by specialists – geneticists and molecular geneticists to avoid misdiagnosis and carefully consider possible effects of mosaic aneuploidy, especially if there are no euploid embryos for transfer. In practice we have seen several possible outcomes after embryo self-rescue – normal and ongoing pregnancy, miscarriage and uniparental disomy..

**Biography**

Igor Pupko has received his B.Sc.in Genetics from University of Essex at 2017. Since graduation he is molecular geneticist in Reproductive Medicine and Genetic Clinic iVF Riga.

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