

The invention relates to a method for the in vitro detection of a predisposition to the development of alterations in ovarian function. The inventive method is based on the detection of polymorphisms -673C>T, -9C>G, IVS1+905A>G and N103S of gene BMP15 and combinations of same. The invention can be used for the diagnosis or prognosis of a predisposition in women to alterations in ovarian function, such as the onset of menopause at an unusually young age, including both early menopause and premature ovarian failure, a reduction in the reproductive window or the development of ovarian hyperstimulation syndrome (OHS) following controlled ovarian stimulation (COS) with FSH in treatments to increase fertility.