This thesis deals with methods of controlled ovarian stimulation and oocyte retrieval on physiological basis. Mouse has been major model organism for wide range of key researches and being able to stimulate its ovarian functions correctly is necessary. That is why mouse stimulation is main topic of this thesis. It summarizes available data and stimulation protocols in relation to factors which can affect the result as a condition, strain, quality of hormones used in administration and others. Potential affections on oocyte and embryo quality are mention according to specific types of administration protocols.
Human infertility is slowly becoming common and one of the techniques used to treat it in assisted reproduction is also ovarian stimulation. In the end of this thesis is a chapter dealing with this commonly used method. It is focused on stimulation for oocyte retrieval, as well as on stimulation of recipient mother in embryotransfer. Differences based on hormones, success in In vitro fertilization programme (IVF) and application frequency are mentioned.