COLLECTION OF BLASTOMERES IN ORDER TO ESTABLISH SEX AND ISOLATE GENETIC MATERIAL-REVIEW

Iuliu TORDA¹, Simona MARC¹, Hortensja BRZOSKA¹, Ioana-Irina SPĂTARU¹, Oana BOLDURA¹, George TUDOR¹, Bianca Cornelia LUNGU¹, Beatrice TUDOR¹, Ovidiu-Ionuț GEORGESCU¹, Ioan HUŢU¹, Călin MIRCU¹

e-mail: iuliu.torda@usab-tm.ro

Abstract

Globally, limited access to food needs in relation to meat or milk production has required the establishment of the sex of offspring from the embryonic stage. While the meat industry uses males, the dairy industry relies on females. During the period of exploitation, the number of products obtained from a female bovine is 5-6 individuals, their sex being able to be influenced by means of sexed semen. Embryo sexing programs can result in a large number of conception products, in a shorter period of time taking into account the desired sex. The use of the desired sex embryo facilitates the improvement of the genetic value. Embryonic sexing procedures involve the collection by biopsy of a minimum amount of genetic material that can ensure the determination of sex. Both invasive and non-invasive biopsy and sexing procedures can influence the subsequent viability of embryos prepared for embryo transfer. This paper highlights the methods of embryonic sexing along with the advantages and disadvantages of each technique involved in determining sex.

Key words: Embryo, biopsy, sex determination.