

Abstract of doctoral dissertation

Reductionism in human embryonic stem cell research. Philosophical aspects

The doctoral dissertation's area of research is the relationship between reductionism and postulated lack of restrictions in human embryonic stem cell research. Its particular subjects are three terms, i.e. stem cell, reductionism, the moral status of human embryo.

The thesis consists of three chapters, introduction and summary. The first chapter presents introductory issues, which are necessary to understand stem cells basics. The part dedicated to biology gives the definition of stem cells, their types and ways of their obtaining. This chapter also shows the extent of protection of human embryo in the law of the United States of America and of Poland, and moral evaluation of human embryonic stem cell research by selected religions as well.

The aim of chapter two is to delineate the history of reductionism and its types, i.e. methodological, epistemological and ontological. Mechanicism and naturalism are described as well, because, in some aspects, they can be classified as types of reductionism. In the beginning of the chapter there are presented sources of reductionism with the stress on the scientific revolution of the 16th and 17th century and its philosophical consequences. This part shows that all the types of reductionism have one common trait, i.e. they show phenomena, terms, properties and theories from upper levels of organization in the categories of lower levels.

In chapter three there is presented the issue of moral status, since the answer to the question of the moral status of human embryo determines the permissibility of human embryonic stem cell research. This chapter gives the definition of moral status and answers the question whether the moral status is graduated or not; the contemporary debate on embryo's membership in the moral community is discussed as well.

In chapter four there are presented metaethical conclusions, which are based on the analyses from preceding chapters. There are posed six questions: (1) whether reductionist understanding of human embryo implies the negation of its full moral status, (2) whether the negation of embryo's full moral status leads to its reductionist understanding, (3) whether full freedom in human embryonic stem cell research implies the negation of full moral status of

human embryo, (4) whether the negation of full moral status of human embryo implies the full acceptance of human embryonic stem cell research, (5) whether reductionist understanding of human embryo implies full freedom in human embryonic stem cell research, (6) whether acceptance of full freedom in human embryonic stem cell research implies reductionist understanding of human embryo. The main aim of this chapter is to verify the hypothesis that there is tight connection between reductionism, negation of full moral status of human embryo and postulated full freedom in stem cell research, i.e. that one should give a positive answer to some of the six questions stated above.

Finally, as a result of the analyses made in the dissertation, the hypothesis was falsified. In other words, the considerations from each chapter leads to the following conclusion: even that there is a connection between the three analyzed issues, there is no straight and necessary implication.