I. Introduction

The biotechnology industry has shown an emerging and promising character since 1980[1] and the patent law plays an important role by incentivizing inventors to direct their intellectual efforts into this field.

Important and exciting achievements in the biotechnology industry have been observed in the area of stem cell technology which could offer a big promise in the treatment of serious disabilites and diseases such as organ disfunctions, Alzheimer, Parkinson, diabetes etc. [2] Therefore various results of stem cell research have been considered in the scientific environment as a human welfare increasing instrument.[3] The patent eligibility of hESC-related inventions generating a tempestuous nexus between patent law, ethics and biotechnology will be covered in this research with a special focus on the situation in Europe.

In this research, several questions have been raised: Through this research, we aim to determine first whether the patent law serves its incentivizing purpose for the inventors working in the stem cell technology field. Second, we want to adress the possible hindrances that the stem cell technology encounters in the current legal status quo which is especially determined by the judicial activity. Third, we provide a projection about the interrelation between the stem cell technology and the patent law.

Within this general context, to facilitate the general understanding of the science, a primer on related concepts of the stem cell technology has been created in Chapter II. In Chapter III, the statutory framework applicable to the hESC-related inventions is outlined. Chapter IV gives details about the moral inquiry by philosophical references to issues of human dignity, the beginning of life and the embryo with the intent to create a framework ap-

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1 Modern Biotechnology and the OECD, OECD Policy Brief at 1 (1999).

2 Bonnie Steinbock, *Moral Status, Moral Value, and Human Embryos: Implications for Stem Cell Research* in The Oxford Handbook of Bioethics 416,437 (Bonnie Steinbock ed., Oxford University Press 2007).; Steve Goldman, *Stem and Progenitor Cell-Based Therapy of the Human Central Nervous System*, 23 Nature Biotech. 862, 867 (2005); Sheng Ding&Peter G.Schultz, *A Role for Chemistry in Stem Cell Biology*, 22 Nature Biotech. 833,839 (2004.).

3 T.Hviid Nielsen, *What Happened to the Stem Cells?,* 34 J. Med. Ethics 852, 853 (2008).

plicable to the patent law practice. After analysing the background and the history affecting dynamics of the legislative action in the EPO and the EU, the patent eligibility status of hESC-related inventions and possible objections would be situated in Chapter V. The case-law, although low in number, attempts to clarify the blurred situation created by legal provisions; its crucial points are analytically discussed in Chapter VI. Chapter VII concludes with the analysis of the momentous judgment of the CJEU and the decision of the BGH which referred to the former about the validty of the so called *Brüstle* patent.