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### **On the issue of the content of notion of “Human Being” from the Perspective of Medical Law and Bioethics<sup>1</sup>**

**SUMMARY: 1. Problem description – 2. Practical Importance of the issue of the content of “Human Being” Concept – 3. Conceptual Approaches to Interpretation of the Concept of “Human Being” – 4. Conclusion.**

#### **1 - Problem description**

The sphere of medicine (using of biomedical technologies applied to human beings), unlike any other sphere of public relations, is characterized by collision, non-linear correlation and structurally complicated interconnection of norms of medical law authorized by the state, and norms of two extra legal systems of normative regulation – bioethics, as a system of regulation (*lex biomedica*), and systems of canonical norms of religious organizations within historical religions (*lex canonica*). And this interaction quite often predetermines the controversy of attitude on such fundamental issues as human health, human dignity and existence, that is based on each of that systems of normative regulation.

One of such fundamental issues is the concept of “Human being” (“person”, “individual”). It is one of the most important and difficult issues not only of bioethics, but also of medical law, legal science, and practice in general, which not only reflects a human being as a representative of a certain biological species, but also as a certain legal personality with certain rights and duties.

According to E.A. Kozlachkova,

“the human being (physical person) is a subject of law characterized by *unity* of the biological body naturally born as a result of relationship between a man and a woman (this is the first characteristic – the biological aspect), ability to understand himself/herself as a subject of public relations (this is the second

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characteristic – the psychical aspect), and the opportunity to exercise rights and duties established in the society (this is the third characteristic – the social aspect). In other words, the human being is a triune bio-psycho-social entity which is embodied in the traditional law”<sup>2</sup>.

There are a lot of such definitions (much more philosophical than legal) in the scientific literature. However, they cannot solve the problem of giving a clear legal definition of the concept in question.

## 2 - Practical Importance of the issue of the content of “Human Being” Concept

The concept of “Human being” is not a subject of abstract theorization; it is an important issue of applied relevance, in the first place.

Dr. E.D. Pellegrino, who was the chairman of the U.S. President’s Council on Bioethics, claimed that restricting the concepts of identity and person to abstract social concepts only and disregarding their objective character, inevitably involves recognition of imaginary freedom of deciding whether to sort out certain living beings with people or not. It is expected to be very dangerous as there have been precedents of referring persons with mental diseases, patients in permanent vegetative state, persons having low quality of life, or newborn children with brain injuries to the beings who are not people, with all that it implies<sup>3</sup>.

Refusing to the legal recognition a human embryo as the person can, in the most dramatic cases, result not only in justification of the use of body parts, organs, and tissues of embryos, and foetuses in cosmetology (as is common now in Russia and in some other countries of the world), but also in justification of the use of such objects in food (some underground “restaurants”).

Even aside from such extreme situations, range of situations when the issue of identifying criteria of the human being, with all that it implies, is becoming more actual, is very wide.

In 2010, in a hospital of Rosarno (Calabria, Italy) after performance of abortion to a woman pregnant for 22 weeks (the declared reason – fetal anomalies), the foetus continued to live for several hours after being

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<sup>2</sup> KOZLACHKOVA E.A., *Physical person as a subject of law*, Extended abstract of PhD (Law) Dissertation: 12.00.01, Lomonosov MSU. – M., 2014. – 24 p. – P. 16–17.

<sup>3</sup> PELLEGRINO E.D., *The Pre-Embryo: An Illusory Category of Convenience*, in *Pediatrics in review*, 1999, vol. 20, № 8. – P. e32–e34. – P. e33.



extracted from the mother's womb in spite of the fact that it was not only given any medical care, but it was placed in a closed package. The hospital chaplain came to the extracted foetus to pray, and noticed that it was still breathing. After that, the child was urgently brought to a hospital of Cosenza (Calabria, Italy), where doctors made attempts to save the child's life, but it was late<sup>4</sup>.

Such cases as wide-scale throwing of remains of dead unborn children on the scrap-heaps as it happened in 2012 in the Sverdlovsk region (Russia), shows the urgency of specification of the concept of "Human being".

According to J.M. Goldenring, potential consequences of using of the concepts of understanding and interpretation of a human being are important for solving a number of the most difficult problems – both medical and legal. In this regard, it is more correct to define the human being from the perspective which most clearly specifies the ethical aspect and minimizes inconvenient paradoxes<sup>5</sup>.

The concept of "Human being" comprises a number of problematic issues. Among them are the following:

- human cloning (including cloning and "cultivation" of human beings without brain or with originally reduced brain – for "production" of donor human organs and tissues);
- production of chimeras and, in general, use of human cells in medical experiences, including for cultivation of stem cells;
- transplantation of brain and head in general (considering that nowadays transplantation of a human face has become possible and there has been a number of such operations performed successfully, it is not fantastic any more – for example, head transplantation of a patient with cancer of the digestive system, respiratory system, etc. to a sound body of the donor with fatal head injuries);
- specification, establishment, and recognition of the time of human being's death;
- attitude to abortion and the so-called "birth control";
- extracorporal fertilization;
- disposal of remains of the foetus which died in the mother's womb or as a result of an intended abortion, attitude to such remains;

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<sup>4</sup> *Aborto a 22 settimane: dopo il feto respirava ancora*, in <http://www.pianetamamma.it/il-bambino/notizie-cronaca/aborto-a-22-settimane-dopo-il-feto-respirava-ancora.html>, April 26, 2010.

<sup>5</sup> **GOLDENRING J.M.**, *The brain-life theory: towards a consistent biological definition of humanness*, in *Journal of medical ethics*, 1985, № 11, pp. 198–204, pp. 198–199.



– permissible limits of implantation of synthetic biotechnological mechanisms and elements to a human body.

It is obvious that the attitude towards understanding and interpretation of the concept of “Human being” depends on the world-view – on the religious perception of the person as an image of God or, on the contrary, on the conviction that the debatable pithecoïd theory is true.

### 3 - Conceptual Approaches to Interpretation of the Concept of “Human Being”

J.L. Dolgin and L.L. Shepherd reasonably state that simplified approaches, according to which the human being is opposed to animals and objects, are poor and irrelevant today when there are possibilities of production of human embryos outside the uterus, and potential opportunities of creation of new life forms by means of manipulations with genes<sup>6</sup>.

According to O.E. Starovoytova and V.N. Starovoytov, “on the base of the highlighted medical characteristics, the human being can always be distinguished from another being”. At the same time,

“mentally handicapped people, despite anomalies of the organism development, are always recognized as people. Legally they have human dignity and right to protection of, though restricted, human rights they have. It also concerns people with congenital anomalies of the body development (for example, without hands, other parts of the body, without some organs, on condition of viability of such person, Siamese twins, etc.) [...]. However, when a child is born without a head, brain or other vitals – heart, lungs, etc. – its status is extremely difficult to define. Despite its inviability, it can live several hours or minutes (sometimes days). Legally this situation causes difficulties: how to treat such a child in the specified period – as a human being with anomalies or as not a human being (as a set of organic tissues)?”<sup>7</sup>.

There are the following conceptual approaches to the definition of being as a “Human being” and to solving of legal and bioethical problems:

1) the group of conceptual approaches based on identification of descriptive characteristics:

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<sup>6</sup> DOLGIN J.L., SHEPHERD L.L., *Bioethics and the Law*, second Edition, New York, Aspen Publishers; Wolters Kluwer, 2009, XXXVIII; 899 p. – P. 112.

<sup>7</sup> STAROVOYTOVA O.E., STAROVOYTOV V.N., *Legal Definition of the human nature*, in Юридический мир [*Legal World*], 2008, № 8.



– the concept according to which the human being is assumed to be a being with a necessary set of medico-biological (including genetic) characteristics of homo sapiens;

– the concept according to which the human being is assumed to be a being with a necessary set of medico-biological characteristics of homo sapiens (including personality and individual consciousness);

– the concept according to which the human being is assumed to be a being with not only a necessary set of medico-biological characteristics of homo sapiens (including personality and individual consciousness), but also with a set of social characteristics;

– the concept according to which the human being is assumed to be a being with not only a necessary set of medico-biological characteristics of homo sapiens (including personality and individual consciousness), and a set of social characteristics, but also with his own spiritual-and-moral and cultural identity, and self-identification;

2) the group of conceptual approaches connected with the time of recognizing of a human being:

2.1) the concept according to which the human being is and should be only a live-born human being (that is from the moment of his/her being born alive);

2.2) the concept according to which the human being is and should be a human being at the prenatal stage of development (with variations of time reference points):

– the concept according to which a human embryo is and should be the human being from the moment of fertilization (the fertilization concept);

– the concept according to which a human embryo is and should be the human being at the prenatal stage of development only when its brain begins to function;

3) the concept of human brain activity.

The approaches specified can be crossed in specific situations.

It should be noted that there is a set of specific situations when any of the above-mentioned approaches cannot give a categorical and unambiguous answer to arising bioethical, ethical-and-medical, and medical-and-legal questions.

According to O.E. Starovoytova and V.N. Starovoytov, the human being is “a developing system which does not always and simultaneously has all the qualities”<sup>8</sup>.

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<sup>8</sup> STAROVOYTOVA O.E., STAROVOYTOV V.N., *Legal Definition of the human*



Let us briefly review some conceptual approaches to the definition of the concept of “Human being”.

### **Fertilization Concept**

Scientists claim that a human being is created at the moment of his/her fertilization. From this point of view, this human being, provided that he/she will survive in dangerous conditions caused by natural external factors, will develop according to his/her genetic program from his/her birth up to the time when the process of development and degeneration leads to his/her death for natural or external reasons. According to C.I. Lugosi, such biological approach to the definition of a human being is fully objective and reliable, and all human zygotes, embryos, and fetuses can be considered as humans from the moment of fertilization until natural death<sup>9</sup>. As O.E. Starovoytova and V.N. Starovoytov write,

“in medicine the fetal period is a part of human life. It is conventional that the personal development begins with the moment of ovum fertilization: medical data clearly specify the actual beginning of a human life – the moment of fertilization from which the human body starts to develop. This is exactly where the boundary between life and non-existence lies”<sup>10</sup>.

This approach is called the fertilization concept, according to which the human being comes into being at the moment when a human ovum and spermatozoon fuse in a zygote.

### **Concept of Human Brain Activity**

According to J.M. Goldenring, from the medical point of view the concept of “Human being” is defined by the existence of a human brain with the necessary activity, as the brain is the only unique and irreplaceable organ of a human body which controls the activity of all the systems of organs, and defines human personality. Thus, according to this approach, existence or lack of a brain (or its activities) defines absence or presence of a human life from the medical point of view; a human life can be

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nature, in *Юридический мир* [Legal World] – 2008. – № 8.

<sup>9</sup> LUGOSI C.I., *Conforming to the Rule of Law: Person and Human Being in 14<sup>th</sup> Amendment Jurisprudence*, in UFL Life and Learning Conference XVI – 2006. – 606 p. – P. 105–222. – P. 112.

<sup>10</sup> STAROVOYTOVA O.E., STAROVOYTOV V.N., *Legal Definition of the human nature*, in *Юридический мир* [Legal World] – 2008. – № 8.



considered as a continuous cycle between the beginning of life of a human brain until its death; along with that, at a certain moment, the present set of tissues and systems of human organs without a functioning brain is not the human being. This approach is often used when discussing bioethical questions of extracorporal fertilization and abortions. If a human being has a functioning brain, there can be no doubts for the doctor that he/she deals with a living patient, which is a decisive factor for decision-making regarding this patient. The same approach, according to this concept, is used regarding a human embryo: if a foetus has a functioning brain, there are no proofs that it is not a living person<sup>11</sup>.

### Concept of Birth

According to this concept, the person is a human being from the moment of his/her being born alive. The complexity and ambiguity of this conceptual approach is proved by the definition of the human being contained in the federal legislation of the USA. Thus, words "person", "human being", "child" and "individual" used in normative legal acts issued by public authorities of the USA mean any newborn baby born alive at any stage of his/her development (according to clause "a" § 8 of Chapter 1 of Title 1 of the United States Code). According to clause "b" § 8 of Chapter 1 of Title 1 of the United States Code, the term "born alive", with respect to any member of the "*homo sapiens*" species, means the complete expulsion or extraction from the mother of that member. At the same time, such member of the "*homo sapiens*" species can be at any stage of development, who after such expulsion or extraction breathes or has a beating heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, regardless of whether the umbilical cord has been cut, and regardless of whether the expulsion or extraction occurs as a result of natural or induced labor, cesarean section, or induced abortion<sup>12</sup>.

### Concept of Physiological (Biological) Characteristics

The original, but not enacted edition of section 24185 of the California Health and safety Code, which contains prohibition on human cloning, contained the definition of a human being which was understood as a

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<sup>11</sup> GOLDENRING J.M., *The brain-life theory: towards a consistent biological definition of humanness*, in *Journal of medical ethics* – 1985. – № 11. – P. 198–204. – P. 198–199.

<sup>12</sup> U.S. Code, <<http://www.law.cornell.edu/uscode/text/1/8>>.



living being with all physiological and mental qualities characteristic inherent to a human<sup>13</sup>.

According to M. Kozhevnikova, characteristics of the human being are “a set of features inherent to a human which change in time and space, and allow other people to intuitively define this individual as a human being”<sup>14</sup>.

### Non-person: Chimera, Hybrid

It is obvious that one of the most important criteria of identification of the human being is complete compliance of a living being’s genetics with a genetic code of the human being. But what do we have if there is no such compliance?

The chimera is an entity produced as result of fusion of genetic material of two different biological species (however, replacement of defective valves of a human heart by that of cows or pigs cannot be called production of a chimera).

C.Y. Johnson writes,

«in labs around the world, the line between man and beast is blurring. Herds of pigs are grown with partly-human livers in the hopes of solving the organ-transplant shortage. Mice with human cells are used as the new "guinea pigs" for testing drugs or figuring out disease. Human brain cells are grown inside mouse skulls to help better understand diseases»<sup>15</sup>.

And such research practices are widespread<sup>16</sup>.

Anyway, the issue of the human being definition is important when using human cells in clinical tests, particularly when researching features of existence and functioning of human cells after implantation to other living beings, considering that such beings having received human cells actually have an uncertain legal status. Richard Doerflinger claims that it

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<sup>13</sup> Senate Bill № 1344, <[ftp://www.lhc.ca.gov/pub/97-98/bill/sen/sb\\_1301-1350/sb\\_1344\\_bill\\_19970825\\_amended\\_asm.pdf](http://www.lhc.ca.gov/pub/97-98/bill/sen/sb_1301-1350/sb_1344_bill_19970825_amended_asm.pdf)>.

<sup>14</sup> **KOZHEVNIKOVA M.**, *Issues of Human Nature in the Context of Biotechnology Development*, Extended Abstract of PhD (Philosophy) Dissertation, The Institute of Philosophy of the RAS. – M., 2013. – 30 p. – P. 10.

<sup>15</sup> **JOHNSON C.Y.**, *From myth to reality. Scientists can create animals with the cells of other species, but are these chimeras medical marvels or high-tech monsters?*, <[http://www.boston.com/news/globe/health\\_science/articles/2005/04/19/from\\_myth\\_to\\_reality/](http://www.boston.com/news/globe/health_science/articles/2005/04/19/from_myth_to_reality/)>. – 19.04.2005.

<sup>16</sup> **COHEN C.B.**, *Creating Human-Nonhuman Chimeras: Of Mice and Men*, in *American Journal of Bioethics* – 2003, Summer. – Vol. 3. – № 3. – P. 3–5.



is "immoral to create a hybrid of the human being and animal which status cannot be defined; and treating such hybrid will become an irresolvable dilemma"<sup>17</sup>.

M. Kozhevnikova reasonably notes that "the subject-matter of chimeras and hybrids of the human being and animal is not fully studied in terms of ethics yet [...]. The issue of a human nature is open in the context of creation of new hybrid entities"<sup>18</sup>.

William Cheshire claims that research projects that create human-animal chimeras risk disturbing fragile ecosystems, endanger health, and affront species integrity<sup>19</sup>. According to N.H. Orlova, «reckless modification of human nature as one of the most difficult systems, is fraught with an irreversible "loss" of the human itself [...] This loss can define unexpected horizons of the "post-human" future»<sup>20</sup>. C.B. Cohen claims that production of chimeras by means of human genetic materials humiliates the human dignity and is a consequence of neglecting of the unique and valuable in people, which requires respect and protection<sup>21</sup>.

It should be noted that in international documents on bioethics and biomedicine, there is no definition of a human being. But there is a ban on production of chimeras.

Thus, in the Recommendation of the Parliamentary Assembly of the Council of Europe No. 1046 of 24.09.1986 "Use of human embryos and fetuses for diagnostic, therapeutic, scientific, industrial and commercial purposes"<sup>22</sup>, member-states of the Council of Europe are strongly recommended to forbid implantation of a human embryo into the uterus of another animal or the reverse, fusion of human gametes with those of

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<sup>17</sup> Quoted after: *Chimeras*, <<http://www.ahc.umn.edu/img/assets/25857/chimeras.pdf>>. – 11 p. – P. 4.

<sup>18</sup> **KOZHEVNIKOVA M.**, *Issues of Human Nature in the Context of Biotechnology Development*, Extended Abstract of PhD (Philosophy) Dissertation, The Institute of Philosophy of the RAS. – M., 2013. – 30 p. – P. 5, 10.

<sup>19</sup> Quoted after: **MOTT M.**, *Animal-Human Hybrids Spark Controversy*, <[http://news.nationalgeographic.com/news/2005/01/0125\\_050125\\_chimeras.html](http://news.nationalgeographic.com/news/2005/01/0125_050125_chimeras.html)>. – 25.01.2005.

<sup>20</sup> **ORLOVA N.H.**, *Ectogenesis and Problems of Bioethics*, in *Human Being and Christian World-view: Freedom and Responsibility*. Almanac. No. 10. – Simferopol, 2005. – P. 216–219. – P. 219.

<sup>21</sup> **COHEN C.B.**, *Creating Human-Nonhuman Chimeras: Of Mice and Men*, in *American Journal of Bioethics* – 2003, Summer. – Vol. 3. – № 3. – P. 3–5.

<sup>22</sup> Recommendation of Parliamentary Assembly of the Council of Europe № 1046 (1986) of 24 september 1986 «Use of human embryos and fetuses for diagnostic, therapeutic, scientific, industrial and commercial purposes», <<http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=15080&lang=en>>.



another animal, fusion of embryos or any other operation which might produce hybrids (“chimeras”) (clause 14.1.4).

Some foreign countries also ban production of chimeras and hybrids.

According to article 3 of the *Assisted Human Reproduction Act*<sup>23</sup> of 2004, “chimera means a) an embryo into which a cell of any non-human life form has been introduced; or b) an embryo that consists of cells of more than one embryo, foetus or human being”. Respectively, the “hybrid” concept means:

“a) a human ovum that has been fertilized by a sperm of a non-human life form; b) an ovum of a non-human life form that has been fertilized by a human sperm; c) a human ovum into which the nucleus of a cell of a non-human life form has been introduced; d) an ovum of a non-human life form into which the nucleus of a human cell has been introduced; or e) a human ovum or an ovum of a non-human life form that otherwise contains haploid sets of chromosomes from both a human being and a non-human life form”.

Respectively, clause “g” of part 1 of article 5 of the specified Act prohibits to “transplant a sperm, ovum, embryo or foetus of a non-human life form into a human being”; and clause “i” of part 1 of article 5 prohibits to “create a chimera, or transplant a chimera into either a human being or a non-human life form”. Clause “j” of part 1 of article 5 prohibits to create a hybrid for the purpose of reproduction, or transplant a hybrid into either a human being or a non-human life form.

Prohibitions of producing “chimeras” and “hybrids” are included in Section 7 “Creation of Chimeras and Hybrids” of the Embryo Protection Act of Germany of 13.12.1990 (in force as of 21.11.2011)<sup>24</sup>,

“(1) Person who undertakes 1. to combine embryos with different genetic information to form a cluster of cells, using at least one human embryo, 2. to combine a human embryo with a cell that contains genetic information different from the embryo cells and, so combined, is able to differentiate further, or 3. by fertilization of a human egg cell with the sperm of an animal or by fertilization of an animal’s egg cell with human sperm, to engineer an embryo that is able to develop, shall be punished with up to five years’ imprisonment or a fine. (2) Likewise anyone shall be punished who

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<sup>23</sup> *Assisted Human Reproduction Act*, <<http://laws-lois.justice.gc.ca/eng/acts/a-13.4/FullText.html>>.

<sup>24</sup> Gesetz zum Schutz von Embryonen (Embryonenschutzgesetz – ESchG), <<http://www.gesetze-im-internet.de/eschg/BJNR027460990.html>>.



undertakes 1. to transfer an embryo arising out of a procedure defined in subsection 1 to a) a woman or b) an animal or 2. to transfer a human embryo to an animal”.

It should be noted that such prohibitions are not manifestation of any retrograde (in defiance ideologically motivated labels in mass media) or intentions to restrict science advancement. It is an attempt to protect the mankind from irresponsible researchers who do not care about the consequences of their actions.

Secret experiments of the Soviet period in the Sukhum apery and in some other places regarding cross-breeding of humans with apes (mostly such experiments were carried out in the 1920-1930's<sup>25</sup>), other circumstances which stimulate legislators in a number of states of the world to take the risks of scientific researches involving production of chimeras very seriously, and to impose statutory bans on such practices (there are more and more such bans in the world), show the need of further discussion of this issue.

#### 4 - Conclusion

The issue remains open – both for medical science and bioethics, and for legal science as there are no comprehensive answers to all the questions. So far, there is no consistent approach to the definition of “Human being”, regarding the use of biotechnologies in respect of people in the first place.

#### Abstract:

The article covers the concept of “human being”. It describes the existing conceptual approaches to the concept interpretation and to the development of the concept legal definition. It studies the practical importance of the issue of the content of “Human being” concept. It touches upon the concept of “Chimera” – as a result of fusion of genetic material of a human being and inhuman life forms. It shows danger of such scientific experiments. It presents foreign practices of legal bans on production of chimeras. The authors also use international documents regarding the problem.

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<sup>25</sup> Some information see: **ROSSIYANOV K.O.**, *Dangerous liaisons: I.I. Ivanov and his experiments on cross-breeding humans with anthropoid apes* // in *Problems of the history of natural science and engineering* – 2006. – № 1. – P. 3–51.



Keywords: human being, bioethics, lex biomedica, medical law, chimera, hybrid, genetics, human dignity.