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STEM CELLS IN MEDICINE: THE FUTURE TREATMENT OF INCURABLE DISEASES (СТОВБУРОВІ КЛІТИНИ В МЕДИЦИНІ: МАЙБУТНЄ ЛІКУВАННЯ НЕВИЛІКОВНИХ ХВОРОБ)

У публікації розглянуто перспективи використання стовбурових клітин у медицині для лікування невиліковних захворювань. Проаналізовано основні типи стовбурових клітин, їх джерела та можливості застосування в регенеративній медицині. Окремі увагу приділено викликам та етичним аспектам, пов'язаним із використанням стовбурових клітин, а також перспективам їхнього впровадження в персоналізовану медицину.

Ключові слова: *стовбурові клітини, регенеративна медицина, ембріональні стовбурові клітини, індуковані плюрипотентні стовбурові клітини (iPSC), неврологічні захворювання, серцево-судинні патології, онкологія, етичні аспекти, персоналізована медицина.*

The publication discusses the prospects of using stem cells in medicine for the treatment of incurable diseases. The main types of stem cells, their sources and possibilities of application in regenerative medicine are analysed. Particular attention is paid to the challenges and ethical aspects associated with the use of stem cells, as well as the prospects for their implementation in personalised medicine. The publication emphasises the significant potential of stem cells in the treatment of diseases such as neurological disorders, cardiovascular pathologies, diabetes and cancer.

Keywords: *stem cells, regenerative medicine, embryonic stem cells, induced pluripotent stem cells (iPSCs), neurological diseases, cardiovascular diseases, oncology, ethical aspects, personalised medicine.*

Modern medicine is on the verge of a revolution, and the key to this is stem cells - unique cells capable of self-renewal and transformation into any type of specialised cell in the body. This property opens up new perspectives for regenerative medicine, offering hope for the treatment of diseases that were previously considered incurable [1].

Stem cells are classified according to their origin and properties. The most promising are embryonic stem cells, which are derived from embryos and have the highest capacity for differentiation. However, their use is accompanied by ethical controversy. Adult (somatic) stem cells, which are found in body tissues (e.g. bone marrow or adipose tissue), have limited capabilities, but their use is less controversial. Induced pluripotent stem cells (iPSCs), which are obtained by reprogramming ordinary cells, are worth mentioning. This method avoids ethical issues and opens up great opportunities for personalised medicine [3].

Stem cells are already showing impressive results in the treatment of a number of diseases. For example, in neurology, they are used to repair damaged neurons in diseases such as Parkinson's disease, Alzheimer's disease or the effects of strokes. In cardiology, they are used to regenerate the heart muscle after a heart attack, which significantly improves the prognosis for patients [1].

One of the most promising areas is the treatment of diabetes. Researchers are working to create insulin-producing cells that could become an alternative to insulin injections for patients with type I diabetes. In oncology, stem cells have already been successfully used for bone marrow transplantation in leukaemia, and in orthopaedics to restore cartilage and joints.

Despite its enormous potential, the use of stem cells is accompanied by a number of challenges. One of the main problems is the risk of rejection of transplanted cells, which can lead to complications. In addition, there is a risk of tumour formation, especially when embryonic cells are used [2].

Ethical issues also remain a subject of debate. The use of embryonic cells is controversial because of the need to destroy embryos. This leads scientists to look for alternatives, such as iPSCs, that avoid these problems.

Stem cells are a real breakthrough in medicine that can dramatically change the approach to the treatment of many incurable diseases. They open up new opportunities for tissue and organ regeneration, giving hope to millions of patients [3].

However, a number of scientific and ethical challenges need to be overcome to fully implement this technology. In the future, stem cells may become the basis for personalised medicine, where treatment will be tailored to the needs of each patient.

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MANAGEMENT OF INTANGIBLE ASSETS IN THE WORLD ECONOMY (УПРАВЛІННЯ НЕМАТЕРІАЛЬНИМИ АКТИВАМИ У СВІТОВІЙ ЕКОНОМІЦІ)

Дослідження розглядає управління нематеріальними активами, які набувають дедалі більшої важливості у світовій економіці. А також аналізуються міжнародні підходи до управління інтелектуальною власністю та роль інновацій у створенні конкурентних переваг компаній.

Ключові слова: *нематеріальні активи, світова економіка, ESG-критерії, управління брендом, інтелектуальна власність, репутація.*

Study examines the management of intangible assets, which are becoming increasingly important in the global economy. International approaches to intellectual property management and the role of innovation in creating competitive advantages are also analyzed.

Keywords: *intangible assets, world economy, ESG criteria, brand management, intellectual property, reputation.*

Intangible assets such as brands, copyrights, patents, data and reputation are important in the global economy. The strategic importance of such assets lies in the formation of the value of companies, as well as in determining their competitive advantages in the market. However, since these assets have no physical expression, their management requires specialized approaches that are increasingly complex due to rapid changes in technology, social and environmental requirements.

The main areas of management of intangible assets [1, 2]:

1. Sustainable development and ESG criteria. The integration of environmental, social and governance (ESG) aspects into business strategy is becoming one of the key trends in the management of intangible assets. According to the report «Approaching the Future 2023», 60% of companies already pay significant attention to the integration of sustainable development in their strategies. This not only improves the reputation of brands, but also helps attract investment, especially from companies that are committed to being socially responsible.

2. Reputation and corporate communication. Reputation is a key intangible asset for companies, especially in times of global uncertainty. According to Corporate Excellence, about 80%