

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

**МАТЕРІАЛИ XI ВСЕУКРАЇНСЬКОЇ  
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ  
СТУДЕНТІВ АСПІРАНТІВ ТА ВИКЛАДАЧІВ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО  
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

**“TO MAKE THE WORLD SMARTER AND SAFER”**

(Суми, 23 березня 2017 року)

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY STATE UNIVERSITY  
FOREIGN LANGUAGES DEPARTMENT  
LANGUAGE CENTRE

**MATERIALS OF THE ELEVENTH  
ALL UKRAINIAN SCIENTIFIC PRACTICAL  
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**“TO MAKE THE WORLD SMARTER AND SAFER”**

(Sumy, March 23, 2017)

## THE USE OF STEM CELLS IN MODERN MEDICINE

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The list of diseases the treatment of which can be successfully applied stem cell transplantation, increases to several dozen. The focus is on the treatment of malignancies of various forms of leukemia and other blood diseases. There are reports of successful transplantation of stem cells in diseases of the cardiovascular and nervous systems. Developed by international protocols of treatment of multiple sclerosis. Multicenter study conducted in the treatment of myocardial infarction and heart failure. There are searched approaches to treating stroke, Parkinson's disease and Alzheimer's

Currently, researchers in the medical field believe that stem cells have the potential to change the appearance of human diseases. There are many treatment methods that are based on the stem cells. But still not determined is public and scientific position on the ethical aspects of the use of stem cells in medicine.

Our task is show that this is an entirely new way in the science, which is a huge benefit, but there are possible contraindications and complications after the use of stem cells.

The discovery of stem cells has fundamentally changed the possibilities of medicine. Our bodies are so unique that can activate the spare cells and direct them to the area of damage where they

update the old cell, or replace "broken" in the new. Deciphering this mechanism in the future will be able to manage, enhance and use directed. These cells are unique for their ability to detect faults in the many systems in the body and is directed there. Nowadays medicine has made a huge step forward. Now you can 'program' stem cells, making them almost completely create healthy new body. Such so worn out tissues and organs acquire new life.

**Conclusions.** The future of cell therapy and transplantation, and, perhaps, medicine in general is connected with using stem cells for the purpose of replacing the structural and functional failure of various organs.

In addition, to restore lost functions of organs and tissues, stem cells can inhibit uncontrolled pathological processes such as inflammation, allergies, cancer processes of aging. Cell and gene therapy technologies are the most versatile modern approaches to treatment. Technology stem cells could lead to new understanding of cell differentiation and how and why certain developing tissue why emerging diseases and how to treat them. It shall be possible to clone individual tissues to whole organisms.