

The university's objectives associated with the establishment of the research laboratory and its role in the achievement of these objectives as well as their compliance with the university's development strategy.

Priority scientific guidelines of the development of the state educational institution of higher professional education Kuban State Medical University (further - Kuban Medical University) are development in the field of regenerative medicine, transplantology, genetics and molecular biology. Kuban Medical University is a state institution and it is guided by the statement: modern education should be based on advanced medical technologies. Educational process and research work as a unit help to achieve high scientific results and train high-skilled personnel.

Kuban Medical University will continue improvement of effective infrastructure for the realization of innovative scientific and educational projects. The Kuban Medical University will also continue cooperation with the leading Russian and foreign universities and research centers.

The Kuban Medical University will continue researches in the field of regenerative medicine on creating biological artificial lung, applying research findings and biotrachea implantation in clinical practice.

The development of culture cell laboratory, the laboratory of PCR (polymerase chain reaction) and chemical analysis laboratory will be used to continue the researches within the limits of existing scientific schools and directions (interventional cardiology and cardio vascular surgery, the development of innovational surgery technologies for lung diseases treatment, pathogenesis, diagnostics and treatment of middle ear diseases etc.). A scientific school of Regenerative Medicine headed by professor P.Macchiarini with the assistance of professor V.A. Porkhanov, V.I. Golubtsov, N.V. Kolesnikova, E.I.Kondratieva will be established.

New laboratory facilities and wider abilities of vivarium and state Research Center of medical primatology of Russian Academy of Medical Sciences will be used for the further development of the school on “Development and Creation of local anaesthetic and cardiotropic (antiarrhythmic and antianginic) medication” under the guidance of Professor P.A. Galenko-Yaroshevsky for creation of pharmaceutical substances with new properties.

PCR laboratory facilities will be used for developing scientific schools of the scientific educational center on “Genetics of Multifactorial Diseases” under the guidance of Professor V.I. Golubtsov. The following fields will be developed: “Genetic engineering technologies in regenerative medicine”, “Genetic-molecular mechanisms of regeneration”.

Facilities of the Center will give more possibilities to the Kuban Medical University in winning different grants in the future.

Laboratory, experimental and clinical facilities of Kuban Medical University will attract young people into and stimulate their interest to biosciences. The percent of young scientists in the structure of teaching staff (efficiency criterion) is planned to increase up to 30%. They may become young PhDs and Doctors.

Sector of intellectual property and commercialization will also be developed. Created new biotechnologies of regenerative medicine for clinical use Kuban Medical University will organize support during execution of patents both in Russia and abroad.

It is planned to found commercial organization “Biotrachea laboratory” with the investments’ support.

A regional special-purpose program “Regenerative medicine and transplantology promotion on the territory of Krasnodar Region” for 2012-2015 yrs is elaborated by Kuban Medical University with the Department of Healthcare. It is supported by the Administration of Krasnodar region and is submitted to municipal Duma for consideration. Moreover, by means of this program it will be possible not only to apply cell transplantology into practice, but also to help our region to come to the fore in the field of regenerative medicine in the country.

The necessity of forming a training system for doctors and researchers, who will be able to elaborate and spread new medical technologies, forces to implement new educational programs on interdisciplinary basis, including residency and internship. The main goal of the university as higher education institution is to set up a department of regenerative medicine and transplantology.

It is planned to make the following special subject programs of “Regenerative medicine” (72-144 academic hours); and the following cycles:

- “Substantial basis of regenerative medicine”,
- “Immunological aspects of regeneration”,
- “Genetic-molecular mechanisms of regeneration”,
- “Genetically engineered technologies in regenerative medicine”,
- “Cell technologies and tissue engineering” ,
- “Cell therapy”,
- “Transplantation of organs and tissues” for doctors of different qualifications – surgeons, GPs, geneticists and clinical laboratory assistants).

School of Regenerative Medicine for young doctors of different qualifications from Russia and other countries will be organized and work permanently. With the attraction of the world leading scientists for giving lectures and holding workshops.

Thus, creating of Regenerative Medicine Center on the basis of Kuban Medical University, its further development as high-performance innovative infrastructure and its role in training of high-skilled specialists will help to achieve goals set by the Government of the Russian Federation to encourage the development of economy, science and social sphere (including public health) in the Russian Federation.