

and European countries. Implementation of the national project “Agrarian and Industrial Complex Development” in 2008-2011 didn’t lead to growth of level of competitiveness. Russia’s accession to the World Trade Organization caused change of forms of the state support of agriculture. Decrease in growth rates of gross domestic product and reduction of the budgetary expenses demands increase of efficiency of the public expenditures in support of agrarian and industrial complex. The offered directions: transition to policy formation in agrarian by the principles of “performance budgeting”; reorientation from agriculture subsidizing on the state support of development of rural areas, creation of rural social and engineering infrastructure; change of the principles of leasing programs, programs of compensation of part of expenses of producers. Due to realization of actions for an assessment, optimization and increase of efficiency of the budgetary expenses the objectives of ensuring competitiveness of agrarian sector of economy can be achieved.

### **ИЗМЕНЕНИЕ ОТНОСИТЕЛЬНОЙ КОПИЙНОСТИ ГЕНОВ OCT4 И SOX2 ПРИ МАЛИГНИЗАЦИИ ТКАНЕЙ ЖЕЛУДКА**

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Октамер-4 (Oct4) и транскрипционный фактор SOX2, участвуют в регуляции работы человеческих эмбриональных стволовых клеток и поэтому могут играть важную роль в прогрессии развития опухолей. Поскольку мало что известно об эффективности Oct4 и SOX2 в качестве потенциальных биомаркеров прогрессии рака желудка, методом RT-qPCR исследовали изменение степени относительной копиюности этих двух генов в различных гистологических типах тканей рака желудка (аденокарцинома G1-2, аденокарцинома G3, аденокарцинома G3 в сочетании с перстневидноклеточным раком и перстневидноклеточный рак) по сравнению с прилежащими здоровыми тканями. Установлено достоверное уменьшение степени относительной копиюности генов Oct4 и SOX2 в тканях рака желудка гистологических типов аденокарцинома G1-2 и аденокарцинома G3. При других гистологических типах рака желудка (аденокарцинома G3 в сочетании с перстневидноклеточным раком и перстневидноклеточный рак) достоверного изменения относительной копиюности генов Oct4 и SOX2 не обнаружено.

### **CHANGES IN THE RELATIVE COPY NUMBER OF OCT4 AND SOX2 GENES IN MALIGNANCY OF GASTRIC TISSUE**

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Octamer-4 (OCT4) and the transcription factor SOX2 are involved in the regulation of human embryonic stem cells and may therefore play an important role in the progression of tumors. Since little is known about the effectiveness of OCT4 and SOX2 as potential biomarkers in the progression of gastric cancer, the variation of the degree of the relative copy number of these two genes was investigated by RT-qPCR in different histological types of gastric cancer tissues (adenocarcinoma G1-2, adenocarcinoma G3, adenocarcinoma G3 in combination with signet-ring cell stomach cancer and signet-ring cell cancer solely) compared with the adjacent healthy tissues. The significant decrease in the degree of relative copy number of genes OCT4 and SOX2 was found in the tissues of gastric cancer of histological types of adenocarcinoma G1-2 and adenocarcinoma G3. For other histological types of gastric cancer (adenocarcinoma G3 combined with signet-ring cell cancer and signet-ring cell cancer solely) significant changes in the relative copy number of genes OCT4 and SOX2 were not detected.