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Yisum Introduces Novel Markers for Brain Cancer Survival Prognosis and a New Treatment Method for the Disease

Findings were published in the prestigious Cancer Research journal

JERUSALEM--([BUSINESS WIRE](#))-- Yisum Research Development Company Ltd., the technology transfer company of the Hebrew University of Jerusalem, announced today that a research team led by Dr. Rotem Karni and the post-doctoral researcher Dr. Regina Golan-Gerstel from the Department of Biochemistry and Molecular Biology, Institute for Medical Research Israel-Canada, at the Hebrew University School of Medicine, discovered novel biomarkers for predicting survival of patients with glioblastoma, the most common and deadliest of brain cancers, as well as a novel method for treating the disease. The research was published in the July issue of *Cancer Research* (<http://cancerres.aacrjournals.org/content/71/13/4464.full>). The invention was patented by Yisum, who is currently exploring potential partners for further development.

The biomarkers discovered by Dr. Karni are more precise than existing markers, and enable accurate survival prognosis of glioblastoma patients. The researchers discovered that the level of a cellular protein named hnRNP A2/B1 is elevated in glioblastomas, and the higher the level of the protein, the poorer the prognosis. The protein is involved in RNA splicing, an RNA processing step that is necessary for proper gene expression.

In addition, the research team discovered that the hnRNP A2/B1 protein, in and by itself, can transform normal cells into cancerous ones, and inhibition of the protein prevents tumor development in mice. The research paper also describes the molecular mechanism underlying this transformation. Following these findings, Dr. Karni's research team is attempting to develop a novel method for treating brain cancer based on inhibition of hnRNP A2/B1 production using RNA antisense technology.

Yaacov Michlin, CEO of Yisum, said, "The biomarker discovered by Dr. Karni can help in assessing the subtype and severity of glioblastoma tumors. This is extremely important for planning the course of treatment. Furthermore, Dr. Karni's research leads to a novel approach for treating this type of cancer, the most common primary brain tumor, and one which currently does not have satisfactory treatment."

About glioblastoma

Glioblastoma is the most common and deadliest primary brain tumor, with an incidence of 3 cases per 100,000 people. The disease is more prevalent in adults, but can appear at any age. Symptoms may include seizures or convulsions, headaches, nausea, paralysis on one side of the body, memory problems, personality changes and other neurological symptoms. When possible, the initial treatment involves resection of most of the tumor, usually followed by radiation and chemotherapy. The median survival time from the time of diagnosis without any treatment is 3 months, but with current treatment, survival of 1–2 years is common.

About Yissum

Yissum Research Development Company of the Hebrew University of Jerusalem Ltd. was founded in 1964 to protect and commercialize the Hebrew University's intellectual property. Ranked among the top technology transfer companies in the world, Yissum has registered over 7,000 patents covering 2,023 inventions; has licensed out 530 technologies and has spun-off 72 companies. Products that are based on Hebrew University technologies and were commercialized by Yissum generate today over \$2 Billion in annual sales. Yissum's business partners span the globe and include companies such as Syngenta, Vilmorin, Monsanto, Novartis, Johnson & Johnson, Roche, Merck, Teva, Google, Adobe, Phillips and many more. For further information please visit: www.yissum.co.il.

Contacts

Yissum Ltd.

Tsipi Haitovsky, Media Liaison

+972-52-598-9892

tsipih@yissum.co.il