



## **Yissum to Receive \$1.2 million of Funding from Aurum Ventures for Development of Novel Diagnostic Platform**

***Non-invasive diagnostic test realizes the potential of circulating DNA for detection of multiple diseases***

***Technology to be presented at Yissum's booth, at IATI-BIOMED 2016 conference***

Jerusalem, Israel, May 23, 2016 – [Yissum Research Development Company of the Hebrew University of Jerusalem](#) announced today it has entered into a research agreement with Aurum Ventures MKI, the technology investment arm of Morris Kahn, for the development of a new diagnostic approach for early detection of multiple diseases by analyzing circulating DNA released from dying cells. Under the current agreement, Yissum is expected to receive \$1.2 million funding. The novel technology will be presented at Yissum's booth during the IATI-BIOMED 2016 Conference, to be held on May 24-26, in Tel Aviv, Israel.

In a series of experiments involving hundreds of patients and control subjects, researchers developed a blood test that can detect multiple pathologies, including diabetes, cancer, traumatic injury and neurodegeneration, in a highly sensitive and specific manner. The novel method infers cell death in specific tissues from the methylation patterns of circulating DNA that is released by dying cells. The findings were reported in a paper published in March 2016 entitled "Identification of tissue specific cell death using methylation patterns of circulating DNA" (PNAS 2016 113 (13) E1826-E1834). The research was performed by a team led by Dr. Ruth Shemer and Prof. Yuval Dor from the Department of Developmental Biology and Cancer Research, Hebrew University of Jerusalem, and Prof. Benjamin Glaser, Head of Endocrinology Department, of the Hadassah Medical Center.

**Yaacov Michlin, CEO of Yissum, commented,** "The novel technology represents an exciting approach that opens up vast possibilities in diagnostic medicine. The capital received from Aurum Ventures will be used for the development of a diagnostic tool for selected diseases, with a first priority to neurodegenerative, cardiovascular and autoimmune diseases, as well as for

developing the invention into a novel blood test for the early detection of multiple diseases at their asymptomatic stage.”

“Prof. Dor and his team have developed a completely novel approach to early diagnosis of a variety of medical conditions that will enable detection of these diseases long before clinical signs of disease become evident,” **comments Dr. Dan J. Gelvan, Managing Director of Life Science at Aurum Ventures.** “This development is likely to become focal in future medicine and we are honored to have been offered the opportunity to join this path-breaking project.”

The researchers have identified multiple DNA sequences that are methylated in a tissue-specific manner (for example, DNA that is not methylated in neurons but methylated elsewhere), and can serve as biomarkers for the detection of DNA derived from each tissue. They then developed a method to detect these methylated patterns in DNA circulating in the peripheral bloodstream, and demonstrated its utility for identifying the origins of circulating DNA in different human pathologies, as an indication of cell death in specific tissues. They were able to detect evidence for pancreatic beta-cell death in the blood of patients with new-onset type 1 diabetes, oligodendrocyte death in patients with relapsing multiple sclerosis, brain cell death in patients after traumatic or ischemic brain damage, and exocrine pancreas cell death in patients with pancreatic cancer or pancreatitis.

### **About Aurum**

Aurum Ventures MKI is the technology investment arm of Morris Kahn, a prominent businessman, philanthropist and entrepreneur. Aurum Ventures MKI invests in Israeli and Israel-related companies in the life science field, in all stages of development.

[www.aurum.co.il](http://www.aurum.co.il)

### **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. Products based on Hebrew University technologies that have been commercialized by Yissum currently generate \$2 Billion in annual sales. Ranked among the top technology transfer companies in the world, Yissum has registered over 9,325 patents covering 2,600 inventions; has licensed out 880 technologies and has spun out 110 companies including Avraham Pharmaceuticals, Betalin Therapeutics, CollPlant and Qlight Nanotech. Yissum's business partners span the globe and include companies such as Syngenta, Monsanto, Roche, Novartis, Microsoft, Johnson & Johnson, Merck, Intel, Teva and many more. For further information please visit [www.yissum.co.il](http://www.yissum.co.il).

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