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## **Yissum Introduces a Novel System for Tracking and Analyzing Human Spatial Behavior by Monitoring People's Mobility for Tourism, Town Planning and Healthcare Applications**

JERUSALEM- Yissum Research Development Company Ltd., the technology transfer arm of the Hebrew University of Jerusalem has introduced a novel method for tracking, recording and analyzing how people move around for the purpose of tourism, town planning and healthcare applications. The novel system monitors people's movements and use of open space to provide accurate data for use in healthcare, urban planning, retail yield management, law enforcement and tourism management. The technology was developed by Dr. Noam Shoal and Michal Isaacson, of the Hebrew University's Department of Geography, Faculty of Social Sciences.

Since human behavior is very unpredictable and depends on countless variables, data on how people move around in amusement parks, national parks and other tourist venues often comes from subjective and inaccurate human testimony. Costly mistakes in planning such sites are usually detected only after the project is completed and in use. There thus exists a need for an accurate, objective system that monitors and records how people actually behave and analyzes the data for the purpose of planning and construction.

The system uses Global Positioning System (GPS) technology as a tool for recording the location of people for the desired period of time. During the tracking period, participants are required to carry a small GPS unit with them. The tracking data is then analyzed, using a proprietary time/space analysis engine, to derive a map indicating the routes taken by each participant and the length of time spent in each location. The data obtained using tracking technologies can be analyzed in real time, creating virtual "radar" of the activity of visitors throughout a destination. The system was recently assessed in PortAventura theme park in Spain. One of the interesting outcomes of this pilot trial was that the tracking and analysis system revealed nationality-dependent differences in the time spent in various facilities.

"Urban tourism is a growing sector with profound effects on the city's layout and economy. This system is an extremely sensitive tool for tourist activity segmentation," said Yaacov Michlin, CEO of Yissum. "This tool provides important information that is impossible to gather in traditional ways, such as locating areas that are under-visited by tourists and have unrealized potential,

and determining the effects of time, weather and a multitude of other parameters on tourist mobility and activity."

The tracking and analyzing system also has far reaching medical applications. In collaboration with Dr. Yair Barzilay from the Orthopedic Surgery Unit at Hadassah Medical Organization, a system was developed for detecting the mobility of patients after surgery, as an objective measure for their recovery and wellbeing. Patients carry a GPS unit with them after the operation, and future development will integrate additional sensors that will allow the combination of GPS data with physiological data, such as heart rate and blood pressure. The system has recently been licensed to Location Based Intelligence Inc. for further development and commercialization in the medical arena.

### **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 6,100 patents covering 1,750 inventions; has licensed out 480 technologies and has spun-off 65 companies. Yissum's business partners span the globe and include companies such as Novartis, Johnson & Johnson, Roche, Merck, Teva, Intel, IBM, Phillips, Syngenta, Vilmorin, Monsanto and many more. For further information please visit [www.yissum.co.il](http://www.yissum.co.il).

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