



For immediate release

Yissum Presents a Virtual Cane for the Visually Impaired

- The device was presented for the 1st time at the Israeli Presidential Conference, which is held in collaboration with the Hebrew University of Jerusalem -

Jerusalem, Israel, June 21, 2011 – Yissum Research Development Company Ltd., the technology transfer company of the Hebrew University of Jerusalem, presented today at the [Israeli Presidential Conference](#), a virtual cane that will significantly improve the orientation and mobility of sight-impaired people. This new device can assist blind people in estimating the distance and height of various obstacles. The invention was registered as a patent by Yissum, which is now seeking strategic partners for further development.

Currently there are almost 200 million visually impaired people globally, 40 million of which are legally blind, and most face multiple difficulties in orientation and navigation. One of the main challenges facing blind people is the ability to assess the height of various obstacles as well as to identify far away objects in their surroundings. The white cane, the current solution, offers only a very partial solution to these challenges.

[Dr. Amir Amedi](#) from the Institute for Medical Research Israel-Canada (IMRIC) and at Edmond and Lily Safra Center for Brain Sciences (ELSC) at The Hebrew University of Jerusalem and his team recently developed a device to help in spatial navigation for the blind. The invention, which functions as a virtual flashlight, can replace or augment the classic white cane. The virtual cane emits a focused beam towards surrounding objects, and transmits the information to the user via a gentle vibration, similar to a cell phone vibration. The cane incorporates several sensors that estimate the distance between the user and the object it is pointed at. This allows the blind person to assess the height and distance of various objects, reconstruct an accurate image of the surroundings and navigate safely. The virtual cane is extremely small, easy to carry, accurate, can function for up to 12 hours and is easy to charge. Using the device is highly intuitive and can be learnt within a few minutes.

Researchers in Dr. Amedi's lab employ the virtual cane in various environments in order to study the brain, its flexibility and reorganization in blind people. For example, the

researchers constructed a real maze that enables subjects to practice walking in changing environments and paths. To date, more than 10 subjects have already successfully navigated the maze, and after a very short practice period managed to completely avoid walls and obstacles.

Yaacov Michlin, CEO of Yisum said, "Dr. Amedi's promising invention can endow visually impaired people with the freedom to freely navigate in their surroundings without unintentionally bumping into or touching other people and thus has the potential to significantly enhance their quality of life."

About Yisum

Yisum 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, Yisum 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 Yisum generate today over \$2 Billion in annual sales. Yisum'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.yisum.co.il.

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