

News Release

Hebrew University professor wins Kaye Award for invention to prevent surgical adhesions

Jerusalem, June 11, 2008 – A material designed to prevent adhesions following surgery has won for Hebrew University Professor Daniel Cohn of the Casali Institute of Applied Chemistry first prize in this year's Kaye Awards for Innovation. The awards were presented during the recent 71st meeting of the Hebrew University Board of Governors.

Prof. Cohn has developed a unique polymer (compounds of high molecular weight) that generate a physical barrier between layers of injured tissues, preventing the formation of adhesions between opposing tissue planes.

Adhesions are abnormal bands of scar tissue that form post-operatively in the treated area and cause organs to bind to one another. Typically, adhesions persist long after the original trauma has healed, attaching organs, nerves, muscles and other neighbouring structures. They are formed in approximately 85% of all patients undergoing routine surgical procedures and represent a major source of post-operative complications and deaths.

The generation of adhesions following heart surgery is of special concern, since they may affect cardiac function. Furthermore, in the frequent cases where repeat operations are required, adhesions obscure cardiac landmarks, making the procedure potentially life-threatening to the patient due to inadvertent vascular or cardiac injury.

Already in use is a wide variety of polymers which are foreign to the human body and which are used in direct contact with its organs, tissues and fluids. These materials are called biomedical polymers, and they have contributed significantly to modern medicine. The barrier created by the preventive polymers is required to remain in place for the period during which the adhesions are generated (a few days), and then, gradually degrade and disappear without having any detrimental effect. Additional requirements pertain to handling and suturing properties of the polymeric film..

The significant step forward represented by Prof. Cohn's invention lies in the development of a new family of biodegradable copolymers, which are combinations of two different monomers (low molecular weight molecules). These copolymers combine two types of segments, each of them rendering the polymers with specific properties. This multicomponent approach permits the variance of various parameters of the materials -- adjusting their basic chemistry, composition and molecular weight -- to comply with the clinical requirements of each specific surgical application.

Prof. Cohn's invention of novel tailor-made biodegradable polymers for the prevention of post-surgical adhesions is patented by Yisum, the Technology Transfer Company of the Hebrew University of Jerusalem. SyntheMed Inc. licensed the technology from Yisum and is awaiting an FDA marketing approval for the first product, REPEL-CV® Adhesion Barrier, for use in pediatric patients (21 and younger) who are likely to need secondary open heart surgery. REPEL-CV has European CE Mark approval for use in all cardiac surgery patients and is currently marketed in most European Union countries.

The Kaye Innovation Awards have been given annually since 1994. Isaac Kaye of England, a prominent industrialist in the pharmaceutical industry, established the awards to encourage faculty, staff, and students of the Hebrew University to develop innovative methods and inventions with good commercial potential which will benefit the university and society.

For more information, or for press contact with students, faculty or spokespersons from HU, please speak in the first instance to Mikki Saperia, on +44 (0)20 7691 1479 or email mikki.saperia@bfhu.org.



About the Hebrew University

With 24,000 full-time students, the Hebrew University of Jerusalem is Israel's pre-eminent institute of higher education. Its faculty members pursue projects that are both essential to Israel's future and the benefit of humanity. It is a centre of international repute, with formal and informal ties extending to and from the worldwide scientific and academic community. Students come from all over Israel and across the Middle East to study in an atmosphere of academic and research excellence.

About the British Friends of the Hebrew University

Established in 1926, The British Friends of the Hebrew University is the oldest established Jewish charity in support of higher education. The charity works to promote and enhance the reputation of the Hebrew University, ensure that underprivileged students are given the opportunity to complete their studies, and help HU to maintain its standard of excellence and worldwide reputation for research.

BFHU acts as the UK's gateway to Hebrew University research, expertise and faculty, and provides financial and pastoral support for prospective and current students at HU, as well as supporting visiting and sabbatical Hebrew University lecturers during their time in the UK.