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## Invention to prevent surgical adhesions wins Kaye Award

Jerusalem, June 12, 2008 – A material designed to prevent adhesions following surgery has won for Hebrew University Prof. 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.

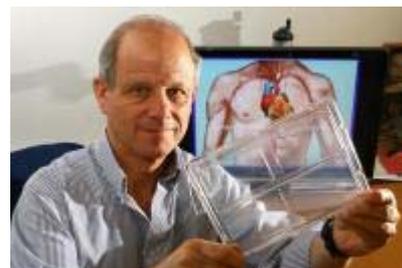
Adhesions are abnormal bands of scar tissue that form post-operatively in the treated area and cause organs to bind to one another. Typically, adhesions persist long after the original trauma has healed, attaching organs, nerves, muscles and other neighboring structures. They are formed in approximately 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 Yissum, the Technology Transfer Company of the Hebrew University of Jerusalem. SyntheMed Inc. licensed the technology from Yissum 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.



Prof. Daniel Cohn, inspecting a specimen of his material.

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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.

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