

Technology Transfer & Intellectual Property News

University of Kansas
Technology Transfer & Intellectual Property.

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Recently Issued Patents

University of Kansas Medical Center

Use of Isolated Domains of Type IV Collagen to Modify Cell and Tissue Interactions (US Patent 6,384,012 B1)

Billy G. Hudson, Ph.D., Michael P. Sarras, Jr., Ph.D.

The patent demonstrates that the 7S domain of type IV collagen disrupts cell aggregation and tissue development. The basement membrane (basal lamina) is a sheet-like extracellular matrix, which is a basic component of all tissues. The basal lamina acts as a filter for the cellular substances traveling between tissue compartments. Typically, the basal lamina is found closely associated with an epithelium in all tissues of an animal including blood vessels and capillaries. The formation of a biologically active basal lamina is important to the development and differentiation of the associated cells. The invention provides methods for the interference with cell interactions with basal lamina components, which comprises contacting the cells and tissues with an isolated domain of type IV collagen. This instant invention has underlying significance in Angiogenesis, the process of new blood vessel formation.

University of Kansas Lawrence Campus

Thin Film Hg-Based Superconductors and Method of Fabrication
(U.S. Patent No. 6,395,685)

Judy Wu, Ph.D. Shao Lin Yan; Yiyuan Xie

Hg-based superconductors have a record high superconducting transition temperature (T_{Sub.C.}). Since a higher T_{Sub.C.} promises higher device operation temperature and a better stability at a given temperature, it is important to develop viable technologies for fabrication of high-quality Hg-based superconducting film. However, Hg-based compounds are volatile, therefore presents a particular problem in the fabrication of micro-bridges in microelectronic devices. This, in turn, leads to unreliable connections in the circuit. The present invention overcomes the problems outlined above and provides new and improved methods for the production of Hg-containing film with significant improved interface characteristics. The described methods are useful for the production of thermoelectric materials, which have desirable high operating temperature and very low thermal conductivity.

New Invention Disclosure

University of Kansas Medical Center

Michael A. Rapoff, PhD and Mark Connelly

“Headstrong” is a new product based on CD-ROM technology. It was developed for the purpose of allowing children who have recurrent headache syndrome (migraine or muscle-contraction headache) to learn strategies for improving their headaches on their own. “Headstrong” presents developmentally tailored educational information as well as headache management information in the form of a CD-ROM so that children can move through lessons at their own pace and acquire skills necessary to positively alter their chronic headache.

Highlighted Start-Up Companies

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ImmunoGenetix Therapeutics, Inc., a new biotechnology founded in Lenexa, Kansas has completed a license for proprietary technology related to AIDS therapy and Immunization from the KU Medical Center. The preliminary research performed in Dr. Opendra Narayan’s lab at the Marion Merrell Dow Laboratories has demonstrated preliminary therapeutic efficacy of gene-deleted plasmids in a primate model. The company was founded as a joint venture with KUMC and has received early funding from the Precede Fund of the KUMC Research Institute and KTEC. The company is currently prosecuting additional patents related to the proprietary technology and anticipates filings to be completed before the end of the summer.

University of Kansas Lawrence Campus

CyDex, Inc. an innovator in drug delivery technologies announced on June 10, 2002, the first U.S. regulatory approval of a CAPTISOL-Enabled(TM) drug -- the intravenous form of Vfend(R)(voriconazole), a new antifungal from Pfizer Inc. CAPTISOL(R) is an advanced formulation system that improves the solubility, stability and bioavailability of drug compounds. CAPTISOL is a donut-shaped molecule that complexes water insoluble active drugs in its central cavity. When given by injection, a CAPTISOL -Enabled formulation helps carry a drug into the patient’s bloodstream, where CAPTISOL and the drug disassociate, allowing the active ingredient to produce its desired pharmacological effect

Executive Director’s Corner

The University of Kansas Office of Technology Transfer and Intellectual Property is projecting the following outcomes for FY 02. Ten (10) new Licenses were negotiated this Fiscal Year. Three (3) of them have equity positions, bringing the total number of active Licenses to fifty-seven (57) and the total number of equity positions to fifteen (15). Nine (9) new patents were filed, bringing the number of total pending patents to forty-five (45). Eleven (11) patents were issued, for a total of seventy-six (76). Two (2) new university start-ups were formed. There are eighteen (18) University of Kansas start-up companies currently operating. Examples of products being developed by these companies include: software systems to monitor the broadcasting of commercials; therapeutics for cancer, diabetes, and auto-immune disorders; electronic design automation tools; petrochemical production; drug delivery; applied remote sensing; seizure detection; and aircraft configuration and analysis.

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