

Technology Transfer & Intellectual Property News

From the University of Kansas
Technology Transfer & Intellectual Property

July/August 2003
Vol. 4, Issue 1

New Invention Disclosures

University of Kansas Medical Center

Invention: **Novel therapeutic approach for prostate cancer**
Inventor: Benyi Li, Department of Urology

Currently available methods for treatment of human prostate cancer target the inactivation of androgen receptor (AR) by androgen deprivation or blockage with anti-androgens. Failure of endocrine therapy and tumor progression is characterized by androgen-independent growth despite high levels of AR expression in metastatic disease. A clinical researcher at KUMC is developing a novel gene therapy approach borrowing a modern gene slicing technique. This approach exceeds the previous studies and possesses great potential as a powerful gene therapy method for prostate cancer patients.

Invention: **New Cell Block Preparation for HPV Testing**
Inventor: Ossama Tawfik, Professor, Department of Pathology and Laboratory Medicine

Cervical cancer is one of the most common malignancies world wide, yet it is preventable or treatable by proper Pap smear screening. Evidence has shown that cervical cancer is linked to the Human Papillomavirus (HPV), thus making HPV test of potential value in the screening of cervical cancer precursors. Current commercially available DNA testing of HPV uses the residual fluid of the Pap smear cytologic specimens. The widespread use of liquid-based gynecologic cytology specimens has raised the possibility of a more economical specimen preparation. A professor in the Department of Pathology and Laboratory Medicine has developed a new cell block preparation procedure that allows for repeated HPV screening tests with potential to significantly reduce the costs associated with the testing.

University of Kansas Lawrence Campus

Invention: **Multilink Iridium Communication System**
Inventors: Victor Frost, Distinguished Professor, electrical Engineering and Computer Science (EECS); Abdul Jabbar Mohammad, Graduate Research Assistant, EECS

Currently, scientists working in remote places where conventional communication facilities do not exist, such as the Polar regions, use satellite (Iridium) links for data communication and web access. However, at 2.4Kbps work is hampered by extremely slow data transfer. With support from NASA and NSF, Frost and Mohammad have created new technology to increase the available bandwidth by combining multiple satellite (Iridium) links. Data transfer speed is improved over the multiple links by approximately 2.4Kbps times the number of links gathered. Frost's software uses existing technologies and protocols from other fields in this new application. Soon, scientific endeavors in very remote locations may be facilitated by this improved communications system.

Invention: **Personal Data Recorder (PDR)**
Inventors: Troy Zarcone, Assistant Research Professor, Coordinator BMC; Ken Ratzlaff, Professor, Director, IDL; Allen Hase, Machinist, Physics machine shop

Who doesn't want more, better data? Human observers who collect data in behavior studies could generate more complete and more accurate data if they didn't have to interrupt their observation, refer to a screen and use a stylus to record each data point. Video recordings, which can be stopped each time a data point is recorded, resolve this issue but double the time invested in data collection and require considerable equipment and technical expertise.

Zarcone, Ratzlaff and Hase, with support from the National Institute for Child Health and Human Development, have developed an improvement to these current data collection methods with the Personal Data Recorder (PDR). With the new device, data is collected in real time via a keypad accessory to a Personal Data Assistant (PDA), or palm computer. The ergonomic design of the keypad allows data points to be recorded by touch, without the need to make a visual break from the events being observed. Thus data points can be recorded more frequently and more accurately. Specialized buttons on the PDR attachment connect to the serial port of the PDA, and events are recorded and displayed with software specifically written for the device. Data is temporarily stored in the hand-held computer in a standard format (comma delimited values), and is then transferred to desktops or laptops for analysis with various third party applications.

Applications for the PDR are as numerous as behavior studies themselves, and range from a psychopharmacology laboratory study of reaction of animals or humans to psychoactive medications, to automation of clinical behavioral assessments, to field studies such as animal behavior in the wild or even consumer behavior in shopping environments.

Frequently Asked Question:

When should I disclose and *what* should I disclose?

The rule of thumb is better early than late. Perhaps more importantly... better late than never. The early stage of a manuscript preparation is generally a good time to contact the Technology Transfer Office. However, a manuscript is not necessary. We prefer to have a chance to review supporting documents prior to any public disclosure to assess the need for a patent. We have had a wide range of disclosures: cell lines, antibodies, mouse strains, medical devices, chemical compounds, screening techniques, probes and plasmids, gene products and mutations as diagnostics.

Executive Director's Corner

New President & CEO of ImmunoGenetix Therapeutics, Inc.

James B. Laufenberg, with over thirty years of experience in pharmaceuticals and biotechnology, has been appointed President and CEO of ImmunoGenetix Therapeutics, Inc. ImmunoGenetix Therapeutics, Inc. is an early stage biotechnology company focused on the research, development and commercialization of new drugs to treat and prevent AIDS.

The company is currently pursuing the commercial development of a DNA AIDS vaccine developed over the past decade by Dr. Opendra Narayan in the Marion Merrell Dow Laboratory of Viral Pathogenesis at the University of Kansas Medical Center. ImmunoGenetix has an exclusive license with the Research Institute to develop and commercialize Dr. Narayan's research advances.

The vaccine can potentially be used therapeutically to treat HIV-positive patients to stop the HIV infection from progressing to AIDS. This vaccine represents breakthrough research and a major advancement in the development of AIDS therapeutics.

A special thank you to Jennifer Hsieh, Susan MacNally and Tim Johnson for their contribution to this newsletter.

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