

FCR 30

Office of the President
May 10, 2005

Members, Board of Trustees:

PATENT ASSIGNMENT REPORT

Recommendation: that the Board of Trustees accept the patent assignment report for the period ending March 31, 2005 be accepted.

Background: On March 4, 1997, the Board of Trustees authorized the University of Kentucky Research Foundation to conduct all future copyright and patent filings and prosecutions and authorized the Executive Vice President for Research, or her designee, to execute any needed documents to obtain appropriate patent or copyright protection. Quarterly reports on patent and copyright applications are to be submitted to the Finance Committee of the board.

Action taken: Approved Disapproved Other _____

PATENT ASSIGNMENT
FOR THE PERIOD FEBRUARY 1, 2005 THROUGH MARCH 31, 2005

Patents

The following assignments on behalf of the Board of Trustees of the University of Kentucky Research Foundation have been executed:

1. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: December 21, 2004
Title: "VEGF-A AS AN INHIBITOR OF ANGIOGENESIS AND METHODS OF USING SAME"
Inventor: Dr. Jaya Krishna Ambati (Department of Ophthalmology)
Technical Description: The present invention relates to the use of VEGF-A to inhibit angiogenesis, cell proliferation, and inflammation. The present invention relates to the use of VEGF-A, PLGF-1, PLGF-2, or combinations thereof to treat and/or prevent ocular neovascularization, angiogenesis, cell proliferation, and inflammation associated with neovascular disease and/or traumatic ocular injury. The present invention also relates to proteins, peptides, organic molecules, and reagents capable of modulating VEGF-A/VEGFR-1 interaction to effect activation or inhibition of ocular neovascularization.
Summary: Vision is affected by inflammation and aberrant proliferation of eye tissue, which result from eye disease and eye injury. The inventors have discovered that intraocular injection of known growth factors (VEGF-A, PLGF-1, PLGF-2, or combinations) prevents these effects of diseases.

2. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: January 3, 2005
Title: "BIS-PYRIDINO CONTAINING COMPOUNDS FOR USE IN THE TREATMENT OF CNS PATHOLOGIES"
Inventors: Drs. Peter Crooks, Linda Dvoskin, Joshua Ayers, and Vladimir Grinevich (College of Pharmacy).
Technical Description: The present invention is directed to the development and therapeutic use of nAChR subtype-selective and brain-bioavailable antagonists. The compounds are made via modification of the nicotine molecule by (1) quaternization of the pyridine-N atom with a lipophilic substituent to afford N-substituted analogs, and (2) modifying the structure of the nicotinium cationic head group.
Summary: Nicotine can affect neurons that play an important role in the neural circuitry relevant to many neurological diseases, including myasthenia gravis, Parkinson's disease, Alzheimer's disease, schizophrenia, eating disorders, and drug addiction. By modifying the nicotine molecule, the inventors have produced compounds that block the activity of nicotine sensitive neurons. The compounds of this invention should be useful in the treatment of a wide variety of diseases related to the action of nicotine.

3. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: March 8, 2005
Title: "SILYLETHYNYLATED HETEROACENES AND ELECTRONIC DEVICES MADE THEREWITH"
Inventors: Dr. John Anthony, Ms. Marcia Payne, Ms. Susan Odom, Dr. Sean Parkin (Department of Chemistry).
Technical Description: The present invention relates generally to the field of organic semiconductors and, more particularly, to silylethynylated heteroacenes as well as to electronic devices made with these compounds.
Summary: Currently the components of electrical circuits, such as semiconductors, are made from inorganic materials. The rigidity of these materials limits the shape and flexibility of consumer electronics that incorporate them. The inventors have developed organic compounds that can be made into flexible electronic components. Components made from these organic compounds will not limit the shape and flexibility of the consumer electronics that incorporate them. For example, the inventors anticipate that future organic components will allow the development of flexible, paper thin, foldable, and full color video screens. Another use would be as a spray paintable substrate for solar cells.

4. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: February 28, 2005
Title: "CATALYST FOR CONVERSION OF HYDROCARBONS TO HYDROGEN AND HIGH-VALUE CARBON"
Inventors: Drs. Naresh Shah and Gerald P. Huffman (Consortium for Fossil Fuel Science).
Technical Description: The present invention relates in general to methods and compositions for production of hydrogen from undiluted hydrocarbons. In particular, the invention relates to methods for making catalysts for non-oxidative catalytic decomposition of undiluted light hydrocarbons into a substantially pure hydrogen stream and carbon, and to catalysts made thereby, wherein in production of a hydrogen product, the carbon is deposited as a high value carbon co-product such as carbon nanotubes.
Summary: Hydrogen is used in the de-sulfurization of power plants and as a source of energy in fuel cells. Common methods of creating hydrogen produce undesirable carbon deposits. The inventors have created a method of producing hydrogen from hydrocarbons that yields useful carbon as a by-product.

5. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: March 23, 2005
Title: “MONOCLONAL ANTIBODY 1A7 AND USE FOR THE TREATMENT OF MELANOMA AND SMALL CELL CARCINOMA”
Inventors: Drs. Malaya Chatterjee and Kenneth Foon (Markey Cancer Center).
Technical Description: This disclosure outlines a particular monoclonal anti-idiotypic antibody, designated 1A7. This antibody has been established as being capable of eliciting an anti-GD2 response. It has all the desirable properties that provide for escaping immune tolerance to GD2 and is appropriate for treating GD2-associated disease.
Summary: The inventors have designed an antibody that binds to melanoma and small lung cancer cells. This binding causes the body’s immune system to attack the cancers. Cancer patients may benefit with treatment with the antibody.
6. **U.S. Patent Application Serial Number:** (to be assigned)
Filed: February 9, 2005
Title: “ASSAY AND METHOD FOR DIAGNOSING AND TREATING ALZHEIMER'S DISEASE”
Inventors: Drs. Philip Landfield (Pharmacology), Kuey Chu Chen (Pharmacology), James Geddes (Anatomy and Neurobiology), Eric Blalock (Pharmacology).
Technical Description: The invention relates to assays and methods for diagnosing and treating Alzheimer's disease (AD). More specifically, this invention relates to methods for detecting changes in the pattern of gene expression that correlated with AD, and in particular, with incipient AD, and using these changes to either diagnose AD in a patient or screen compounds for treating AD.
Summary: The inventors have developed methods and kits for diagnosing Alzheimer's disease and/or incipient Alzheimer's disease.

Patent Activities

Fiscal year to date as of March 31, 2005

Number of Patent Applications	19
Number of Patents Issued	4
Patent Income	\$747,502

