FCR 5

Office of the President
May 6, 2003

Members, Board of Trustees:

PATENT ASSIGNMENT REPORT

Recommendation: that the patent assignment report for the period February 1, 2003 through April 30, 2003 be accepted.

Background: FCR 5, dated March 4, 1997, authorized that all future copyright and patent filings and prosecutions be conducted by the University of Kentucky Research Foundation (UKRF), and that the Vice President for Research and Graduate Studies or his designee be authorized 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
QUARTERLY FOR THE PERIOD FEBRUARY 1, 2003 THROUGH APRIL 30, 2003

Patents

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

1. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled "NUCLEIC ACIDS ENDODING *Sarcocystis neurona* ANTIGEN AND USES THEREOF". Inventor: Dr. Daniel K. Howe". The present invention provides novel isolated nucleic acids encoding antigenic proteins derived from Sarcocystis neurona, or unique fragments thereof. In particular, the invention provides novel isolated nucleic acids encoding membrane-associated polypeptides SnSAG2, SnSAG3, and SnSAG4. Also provided are purified antigenic polypeptide fragments encoded by the novel nucleic acid sequences set forth herein that encode for *Sarcocystis neurona*. In particular, the invention provides purified antigenic polypeptide fragments encoded by the novel nucleic acid sequences set forth herein that encode for SnSAG2, SnSAG3, and SnSAG4.

   Further, the invention provides a purified antigenic polypeptide fragment encoded by the nucleic acid sequences set forth herein or a selective portion thereof, in a pharmaceutically acceptable carrier. Also, it provides isolated nucleic acids capable of selectively hybridizing with the nucleic acid from *Sarcocystis neurona*. The invention also provides vectors comprising the nucleic acids of the invention encoding *Sarcocystis neurona* or a unique fragment thereof and provides the vector in a host capable of expressing the polypeptide encoded by that nucleic acid. Finally, the invention provides a purified polyclonal and/or monoclonal antibody specifically reactive with *Sarcocystis neurona* and a method of detection of *Sarcocystis neurona* utilizing the antibodies of the invention.

2. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled "COMPOUNDS OF USE IN THE TREATMENT OF EPILEPSY, SEIZURE, AND ELECTROCONVULSIVE DISORDERS". Inventors: Drs. Peter A. Crooks, Aimee Karis Bence and David Robert Worthen. This invention provides pharmaceutical preparations and the uses thereof for preventing and/or treating seizures and other electroconvulsive disorders by administering a pharmaceutically effective amount of bridged dianilino compounds. Embodiments include administering an effective amount of 4,4'-diaminodiphenyl ether, or (3-aminophenyl)-(4-aminophenyl) amine, an analog, or a pharmaceutically acceptable salt or complex thereof to a mammal in need of treatment or prevention of epilepsy, seizure, or other electroconvulive disorder.

3. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled "CHAIN MODIFIED PYRIDINO-N-SUBSTITUTED NICOTINE COMPOUNDS FOR USE IN THE TREATEMENT OF CNS PATHOLOGIES". Inventors: Drs. Peter

A. Crooks, Linda Dwoski, Rui Xu and Joshua T. Ayers. This invention provides compounds for treating abuse of nicotinic receptor agonists, addiction to psychostimulant drugs, addiction to opiates, addiction to alcohol, addiction to tobacco products, addiction to nicotine, schizophrenia and related diseases, depression and related conditions, Alzheimer's disease, Parkinson's disease, irritable bowel syndrome, and colitis. The compounds competitively inhibit central nervous system acting nicotinic receptor agonists and act at the putative a3b2 and a4b2 neuronal nicotinic receptors in the central nervous system.

4. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled "PURIFICATION OF PROTEINS BY FOAM FRACTIONATION". Inventors: Drs. Michael Jay and Paul Bummer. This invention provides a method for purifying a molecule of interest from a sample. The method includes the use of chemically- or recombinantly -attached appendages that enhance the affinity of the molecules of interest for a gas-liquid interface. This is accomplished by creating a fusion protein in microorganisms or in plants in which an appendage that possesses an affinity for a gas-liquid interface is attached to the molecule of interest, or by attaching an appendage that can be linked noncovalently directly or indirectly to a modified surfactant. The sample is subjected to a stream of inert gas which causes the formation of bubbles and the generation of a rising foam. The molecule of interest is then recovered from the collected foam following the specific cleavage of the appendage.