DNA have been implicated in the transformation of normal cells to tumor cells. A key feature of the synthesis is that it provides a one-step high yield process for the production of adducts derived from the cis-opening of diol epoxide metabolites from polycyclic aromatic hydrocarbons. Previously such cis-opened adducts have not been readily accessible.

This technology provides compositions and synthetic methods for the preparation of important biologically active compounds. Typically, admixing adenine, olefin and ligand in the absence of oxygen with an appropriate catalyst produces the desired product for a wide range of substituted olefins and amino derivatives.

Mammalian Gene Insertion Libraries

X Zheng, CL Steward, SH Hughes, EV Barsov (NCI)
Serial No. 09/069,127 filed 28 Apr 98
Licensing Contact: Richard Rodriguez; 301/496–7056 ext. 287; *e-mail;* rr154z@nih.gov

Sequencing of the genomes of higher organisms is progressing rapidly, but only a fraction of the open reading frames and cDNAs whose sequence are known have functions associated with them. There is therefore a great need to assign functions to these open reading frames. One method of achieving this goal is insertional mutagenesis using transposable elements. An insertion into a gene not only alters the structure of the gene but also serves as a molecular marker for characterizing and cloning the targeted gene. While effective, this approach has been problematic in mammals due to the large size and complexity of mammalian genomes and the lack of appropriate mammalian transposable elements. The current invention provides a mammalian insertional mutation library in which each cell has one or more copies of a vector inserted into its genome at essentially random locations, and the library as a whole includes insertions in the majority of the genes of the genome. The cells used to create the libraries can be of a variety of types, including totipotent cells, and can be used to generate a whole animal. The unique vectors used to make the libraries are retrovirus-based, replication-deficient in mammalian cells and are efficiently produced in avian cells at high titers. This technology allows for the efficient creation of transgenic mice in which a detailed investigation of the cellular processes that are affected by the expression of mutated gene sequences can be performed as well as an analysis of the consequences on the physiology of the whole animal.

Preparation of Chiral 5-Aminocarbonyl-5H-Dibenzo[A,D]Cyclohepten-5,10-Imines by Optical Resolution

TH Jones, Kc Rice (NIDDK)
Serial No. 08/420,013 filed 11 Apr 95; U.S. Patent No. 5,686,414 issued 11 Nov 97
Licensing Contact: Leopold Luberecki, Jr.; 301/496–7735 ext. 223; e-mail: 1187a@nih.gov.

This case discloses a means for chiral separation of 5-Aminocarbonyl-5H-Dibenz0[A,D] Cyclohepten-5,10-Imines (ADCI), a compound under development by an exclusive licensee as a treatment for epilepsy and nervous system disorders. Approximately one percent of the American population suffers from epilepsy or related seizure disorders, and many of these patients do not respond to currently available antiseizure medications. It can be assumed that if one of the enantiomeric forms of ADCI is more active than the other, the U.S. Food and Drug Administration and its equivalent foreign counterparts will require use of that stereoisomeric form of the compound.

A Novel Mouse Model For Non-Insulin Dependent (TYPE II) Diabetes Mellitus

CR Kahn, JC Bruening, D Accili (NICHD)
DHHS Reference No. E–123–96/0 filed 07 Jun 96
Licensing Contact: Charles Maynard; 301/496–7735 ext. 243;
e-mail: cm251n@nih.gov.

This technology relates to animal models of polygenic insulin-related disorders and methods of using such animals. The invention features a ''genetically engineered'' non-human animal having a first and second mutation in genes important for insulin action. The double ''knockout'' animal is useful as a model of polygenic insulin-related disorders, e.g., type II diabetes. Non-insulin dependent (TYPE II) diabetes mellitus (NIDDM) is among the most common of all metabolic disorders, affecting 6–7% of the U.S. population. Currently no good animal models exist for NIDDM. The most frequently used models are models of genetic obesity. In these obesity models, there is gradual development of insulin resistance as the obesity increases. The Goto-Kitazak (GK) rat has been proposed as a non-obese model of NIDDM, although the diabetes in this case is quite mild and the pathogenesis is much less well understood. Thus, a need still exists to develop a novel mouse model that closely resembles human NIDDM disease.

Dated: February 1, 1999.

Jack Spiegel,

Director, Division of Technology Development and Transfer, Office of Technology Transfer.

[FR Doc. 99–3238 Filed 2–9–99; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, Public Health Service, DHHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by agencies of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 207 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licesning.

ADDRESSES: Licensing information and copies of the U.S. patent applications listed below may be obtained by contracting John Fahner-Vihtelic at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804; *telephone:* 301/496–7057 ext. 270; *fax:* 301/402–0220; e-mail: jf36z@nih.gov. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

A General Strategy And Specific Software For Maintaining Knowledgebases Consisting Of Diverse Categories

S Shaw (NCI)
DHHS Reference No. E–260–98/0 filed 30 Nov 98

The present disclosure describes a data management system and process for efficiently storing and retrieving data on a computer. This invention is designed to combine maximum data management flexibility and stability into a unified knowledgebase applications; as a result it has diverse functionality which can replace users' fragmented world of specialized applications such as contact manager, administrative database, bookmark keeper, fact finder. Some unique features of this software-based invention

are: (1) ability to handle any number of conceptually distinct categories of items (such as people, events, institutions, tasks, concepts, processes, document types); (2) tools for creating relationships between any two or more objects, with the ability to categorize types of relationships and decide which categories they apply to; (3) use of parent-child relationship as a singularly important relationship to organize, view and navigate information; (4) flexibility in adding diverse categories of objects and relationships, while maintaining a simple underlying data structure and programing environment; and (5) ability to view complex relationships in flexible and informative ways; (6) tools for managing names which are indispensable for finding the relevant objects; (7) efficient ways to search information and filter retrievals to limit to relevant information.

Fabrication And Characterization Of Novel Amperometric Biometric Sensors

ET Chen (FDA)

DHHS Reference No. E–177–98/0 filed 30 Nov 98

The present invention relates to the construction of an amperometric sensor using a catalytically active cyclodextrin as an enzyme biometric. The particular catalytically active cyclodextrin molecule that is disclosed is made by chemically modifying a cyclodextrin by the addition of one or more imidazole moieties. The cyclodextrin is deposited on the surface of an electrode and the resultant surface modified electrode is used as a biosensor to detect the presence of nitrophenyl acetate.

Method for Non-Invasive Identification of Individuals at Risk for Diabetes

AJ Durkin, MN Ediger, MV Chenault (FDA)

Serial No. 60/109,257 filed 19 Nov 98

The present disclosure describes a device and methods for screening individuals at risk for developing diabetes. It relies on a combination of optical spectroscopy and a multi-variate statistical analysis. In practice, the device compares and models spectra taken from a subject to control spectra taken from the same subject. This invention was designed to be a minimally/non-invasive, inexpensive, and highly sensitive system. In its simplest form, the invention will be developed as an adjunctive technique to current diabetes screening methods. As relevant clinical data becomes available from initial applications, a stand-alone device is likely to evolve from the present invention.

Fiber Optic Probe for Quantitative Optical Spectroscopy

AJ Durkin, S Matchette, M Ediger (FDA)

Serial No. 60/105,945 filed 28 Oct 98

The present disclosure describes a fiber optic probe assembly and methods of using said probe assembly for both medical diagnostic and industrial applications. This novel device consists of a single light delivery source in combination with an array of light detector fibers. In use, the assembly has the ability to simultaneously acquire data from a variety of source/detector separations. The entire data set is then in a convenient format, for use with an appropriate mathematical model of light transport, to deduce optical properties of the sample under test. The properties may be associated with the technique known as ''optical biopsy'' for diagnostic purposes. Industrial applications where a turbid mixture requires analysis can also employ the disclosed device and methods. Examples of some industrial uses would be manufacturing processes associated with pharmacology, food processing, and emulsion technology.

Determining the Hurst Exponent for Time Series Data

PB DePetrillo (NIAAA)

Serial No. 09/132,462 filed 11 Aug 98

The present application describes a method, an apparatus, and a computer-readable medium for calculating the Hurst coefficient of time-series data. Many biological constituents, such as the cardiovascular system, generate signals like the heart rate which exhibit chaotic behavior. The Hurst coefficient is a type of chaotic signature which correlates to signal complexity. Measures of cardiac signal complexity are known to be correlated with healthy physiological function. Therefore, this technology may be useful in a variety of diagnostic applications such as: (1) real-time analysis of EKGs in acute care units to help identify patients at risk of heart attack, (2) identifying previously unknown cardiovascular drug toxicities, and (3) screening analysis of EKGs in ambulatory patients.

Dated: February 2, 1999.

Jack Spiegel,

Director, Division of Technology Development and Transfer, Office of Technology Transfer.

[FR Doc. 99–3239 Filed 2–9–99; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552(c)(6), Title 5, U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Clinical Trials Review Committee.

Date: February 21–22, 1999.

Time: February 21, 1999, 7:00 PM to 10:00 PM.

Agenda: To review and evaluate grant applications.

Place: Hyatt Regency Hotel, One Bethesda Metro Center, Bethesda, MD 20814.

Time: February 22, 1999, 8:30 AM to adjournment.

Agenda: To review and evaluate grant applications.

Place: Hyatt Regency Hotel, One Bethesda Metro Center, Bethesda, MD 20814.

Contact Person: Joyce A. Hunter, PHD, NHLBI/DEA/Review Branch, Rockledge Building II, Room 7192, MSC 7924, 6701 Rockledge Drive, Bethesda, MD 20892, (301) 435–0287.

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

Name of Committee: Heart, Lung, and Blood Program Project Review Committee.

Date: March 18, 1999.

Time: 8:00 AM to 5:00 PM.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn—Silver Spring, 8777 Georgia Avenue, Silver Spring, MD 20910.

Contact Person: Jeffrey H. Hurst, Scientific Review Administrator, Review Branch, National Heart, Lung, and Blood Institute, National Institutes of Health, 6701 Rockledge Drive, Room 7208, Bethesda, MD 20892, 301/435–0303.

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)