Serial No. 08/368,589 filed 06 Jan 1995; U.S. Patent No. 5,526,395 issued 11 Jun 1996

Licensing Contact: NIHOTT@od.nih.gov

The present invention provides a method for computer-assisted, interactive 3-dimensional radiation treatment planning and optimization. The computerized system is capable of processing and analyzing data obtained from x-ray, CT, MRI, PET, SPECT, and gammacamera devices. Hence, the system can be used as a training device, alleviating the need for training centers to purchase each of these devices. The computerized system comprises a fast, versatile, and user-friendly software package and computer components which are commercially available and which can be used without significant modification. Because the hardware costs of this system are much lower than the cost of systems of comparable ability, this invention ought to be particularly attractive to smaller radiation oncology facilities which seek a powerful treatment planning system. The low cost of the system is also particularly advantageous for medical training facilities, including medical schools. The invention also has potential use as a monitor for clinical quality assurance.

Combination Therapies for Viral Infection

Lori *et al.* (NCI); Malley & Vila

Serial Nos. 08/065,814 filed 21 May 1993; 08/245,259 filed 17 May 1994; 08/169,253 filed 20 Dec 1993; 08/378,219 filed 25 Jan 1995; 08/401,488 filed 08 Mar 1995; 08/577,322 filed 22 Dec 1995; 08/617,421 filed 18 Mar 1996; 09/497,700 filed 03 Feb 2000

Licensing Contact: J.P. Kim; 301/496–7056 ext. 264; e-mail: kimj@od.nih.gov

The subject inventions provide for formulations and methods for inhibiting replication of reverse transcription dependent viruses in animals cells comprising administering a compound that depletes the intracellular pool of deoxyribonucleoside phosphate, and further comprising administering a compound that serves to inhibit replication of the virus by terminating DNA chain elongation.

Dated: July 19, 2000.

Jack Spiegel,

Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

[FR Doc. 00–19151 Filed 7–27–00; 8:45 am]

BILLING CODE 4140–01–P

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 licensing.

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

Vessel Delineation in Magnetic Resonance Angiographic Images

Peter Yim (CC)

Serial No. 60/181,990 filed 11 Feb 2000

Licensing Contact: Carol Salata; 301/496–7735 ext. 232; e-mail: salatac@od.nih.gov

This invention relates to advances in magnetic resonance angiography (MRA) or the imaging of blood vessels in the body for the evaluation of vascular pathology. Presented are new methods for processing magnetic resonance angiographic images, or angiograms, to delineate certain vessels in an angiogram. These methods find particular utility in highly vascular regions of the body such as the cerebrum, heart, abdomen and extremities where there is extensive overlapping and variation in the size of the vessels. Current MRA methods are unable to generate high-resolution images of complex vessel geometries in these dynamic environments. The patent application for this invention covers algorithms and computer-implemented methods for tracking the paths of vessels in magnetic resonance angiography. Also covered are similar methods for digital image processing in alternative imaging technologies such as tomography and X-ray angiography.

Methods for Predicting the Biological, Chemical, and Physical Properties of Molecules From Their Spectral Properties

Dwight W. Miller *et al.* (FDA)

Serial No. 09/496,314 filed 01 Feb 2000

Licensing Contact: Peter Soukas; 301/496–7056 ext. 268; e-mail: soukasp@od.nih.gov

The number of known chemical compounds is enormous, and the number is constantly increasing. While there are a vast number of chemical compounds, only a relative few of those compounds may exhibit a particular desirable property, such as pharmaceutical activity. Random testing of known compounds to identify those compounds which show pharmaceutical activity is very expensive and time-consuming. Similarly, there is also a need to screen compounds for toxicity, so that rational decisions can be made regarding the use and regulation of compounds that have toxic potential. At present, only a fraction of known compounds have been thoroughly tested for their toxicological and potential therapeutic properties.

Scientists have developed methods which attempt to predict which compounds are likely to exhibit a particular property. The present invention provides a method for establishing a quantitative relationship between spectral properties of molecules and a biological, chemical, or physical endpoint of the molecules. The present invention further provides methods for rapidly screening isolated compounds or mixtures of compounds based upon their spectral data.

Molecules That Influence Pathogen Resistance

Gregory A. Taylor and George F. Vande Woude (NCI)

DHHS Reference No. E–068–00/0 filed 03 Jan 2000

Licensing Contact: J.P. Kim; 301/496–7056 ext. 264; e-mail: kimj@od.nih.gov

Interferon-gamma (IFN-γ) is an important cytokine for control of infectious agents and regulation of the immune system. IFN-γ is thought to exert its effects largely by activation of IFNγ-responsive genes. One recently identified IFNγ-regulated gene is IGTP. It has been found that the IGTP-family proteins mediate the immune response of mammals to various infectious pathogens. In particular, it has been noted that IGTP functions as a downstream mediator of IFN-γ and

appears particularly important to host response in parasitic infection.

The present invention provides for the prevention and treatment of infectious diseases through modification of immune response(s), in particular, to the involvement of GTPase molecule(s) in such immune responses to infectious disease (such as parasitic (*e.g.,* protozoan) disease).

Method of Treating a Viral Infection Using Antagonists or Macrophage Colony Stimulating Factor (M–CSF)

Clouse-Strebel *et al.* (FDA)
DHHS Reference No. E–255–99/0 filed 08 Nov 1999
Licensing Contact: J.P. Kim; 301/496–7056 ext. 264; e-mail: kimj@od.nih.gov

Colony stimulating factors (CSF's) are a class of proteins that stimulate growth and development of bone marrow progenitor cells into mature cells, such as granulocytes, macrophages, megakaryocytes, erythrocytes, lymphocytes, and mast cells. One of these factors is macrophage colony stimulating factor (M-CSF), a homodimeric glycoprotein with subunits linked by disulfide bonds. M-CSF is also known as CSF–1, CSF–69, LSF, MGF, and CSF-HU.

The present invention provides for a method for treating a viral infection, such as HIV–1 and HIV–2, using an amount of an antagonist of M-CSF sufficient to inhibit replication of the virus, either administered alone or in combination with another anti-viral agent.

S-Nitrosoglutathione as a Protease Inhibitor for the Treatment of AIDS and Neurodegenerative Disorders

Chuang C. Chiueh (NIMH), Sang Y. Lee (NIMH), David A. Davis (NCI), Robert Yarchoan (NCI)
DHHS Reference No. E–008–00/0 filed 01 Nov 1999
Licensing Contact: J.P. Kim; 301/496–7056 ext. 264; e-mail: kimj@od.nih.gov

The human immunodeficiency virus (HIV) is the causative agent of acquired immunodeficiency syndrome (AIDS). Over the years, drug-resistance has been a critical factor contributing to the gradual loss of clinical benefit to treatments for HIV infection. There has been great concern regarding this apparent growing resistance of HIV strains to current therapies. Accordingly, there is a great need for new effective HIV therapeutics.

The present invention provides for the use of nitrosylating compounds, such as S-Nitrosoglutathione and derivatives thereof (for example, as an HIV–1 protease inhibitor) for the treatment of AIDS and neurodegenerative disorders.

Enhancement of Hematopoietic Cells

William J. Murphy (NCI), Susan M. Richards (NCI), Dan L. Longo (NIA)
DHHS Reference Nos. E–247–99/0 filed 21 Jan 1997 and E–247-99/1 filed 20 Jan 1998 (PCT/US98/00887)
Licensing Contact: J.P. Kim; 301/496–7056 ext. 264; e-mail: kimj@od.nih.gov

The present invention provides a method for enhancing hematopoiesis by contacting hematopoietic stem or progenitor cells with a composition containing prolactin, preferably recombinant prolactin. Stimulation of hematopoiesis can serve to replace hematopoietic cells. The invention further provides a method for treating an animal to improve hematopoiesis or prevent hematopoietic-suppression by administering a pharmaceutically acceptable composition containing prolactin. The invention further relates to a composition comprising a cytokine that can enhance hematopoiesis and prolactin, and a composition comprising a therapeutic that can cause hematopoietic-suppression and a prolactin.

Dated: July 19, 2000.

Jack Spiegel,

Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

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Discovery of a Novel Human Aminopeptidase Which May Regulate Cleavage and Shedding of the Human Type-I Tumor Necrosis Factor Receptor

Stewart J. Levine (NHLBI)
DHHS Reference No. E–003–00/0 filed 28 Feb 2000
Licensing Contact: Richard U. Rodriguez; 301/496–7056 ext. 287; e-mail: rodrigur@od.nih.gov

Cytokines are a large and diverse group of molecules which mediate interactions between cells. Aberrant regulation of cytokine signaling results in a wide variety of hyper-inflammatory, autoimmune and immune-deficiency pathological conditions. Tumor necrosis factor-α (TNF-α) is a multifunctional cytokine mediating pleiotropic biological functions in both healthy and disease states. TNF-α has been shown to have a role in the following activities: Destroying tumors, mediating responses to tissue injury, protecting hosts from infections by various microorganisms and activating numerous genes, including NF-κB and AP–1. TNF-α has also been implicated in the pathogenesis of a variety of diseases and disorders. The present invention provides compositions and methods related to regulation of cytokine signaling through the TNF-α pathway. Specifically, the invention provides a novel gene, polypeptide and related compositions and methods for the regulation of TNF Type-I receptor ectodomain shedding. It is contemplated that the compositions and methods of this invention will find use in therapeutics for the treatment of diseases and disorders of the immune system.

Amplification and Overexpression of Multiple Genes at 17q23 in Breast Cancer

Anne H Kallioniemi, Olli P Kallioniemi, Juha T Kononen, Maarit Barlund (NHGRI)
DHHS Reference No. E–051–00/0 filed 28 Jan 2000
Licensing Contact: Richard U. Rodriguez; 301/496–7056 ext. 287; e-mail: rodrigur@od.nih.gov

This invention pertains to gene amplification and its role in the progression and initiation of many solid