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 an agency 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. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

Formylpeptide Receptor (FPR) as a Target for Anti-Malignant Glioma Therapy

Ji Ming Wang et al. (NCI).

U.S. Provisional Application filed 25 Mar 2004 (DHHS Reference No. E–069–2004/0–US–01).

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The present invention identifies formylpeptide receptor (FPR) as a target for therapeutic intervention against malignant gliomas. More specifically, the invention describes a method for inhibiting a FPR-mediated activity of a glioma cell expressing FPR, comprising contacting the cell with an effective amount of an agent that inhibits expression and/or activity of the FPR. Several classes of inhibitors of FPR expression and/or activity are shown to inhibit glioma cells, in particular, small interfering RNAs (siRNAs) and small molecule antagonists of FPR.

In addition to disclosing inhibitory agents for carrying out this method, the invention also discloses diagnostic methods for identifying highly malignant glioma cells and a method for identifying an agent that inhibits an FPR-mediated activity of a glioma cell.

Construction of a Recombinant Mammalian Expression System for the Production of Human TGF-beta 1 and Members of TGF-beta Superfamily Cytokines

Zhongcheng Zou and Peter Sun (NIAID).

U.S. Provisional Patent Application No. 60/534,379 filed 06 Jan 2004 (DHHS Reference No. E–048–2004/0–US–01).

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Transforming growth factor-beta 1 (''TGF-beta 1'') is an anti-inflammatory cytokine and is widely used in immunological research. Various recombinant expression systems produce TGF-beta 1, however, the yield of such expression systems remains low with the most effective systems producing from 1–5 mg/liter of cell culture with lengthy purification steps. As a result, the availability and price of the cytokine is unsatisfactory.

To address this problem, this invention provides a novel mammalian recombinant TGF-beta expression system which produces TGF-beta 1 at approximately 30 mg/liter of cell culture, which is approximately 10 times better than the yield provided by existing recombinant TGF-beta 1 expression systems. Owing to the large superfamily of cytokines to which TGF-beta belongs, this expression system can be potentially applied to other members of the TGF-beta superfamily.

Immunogenic Peptides for the Treatment of Prostate and Breast Cancer

Jay Berzofsky, Sang-kon Oh, and Ira Pastan (NCI).

U.S. Provisional Patent Application 60/476,467 filed 05 Jun 2003 (DHHS Reference No. E–116–2003/0–US–01).

Licensing Contact: Brenda Hefti; 301/435–4632; *heftib@mail.nih.gov*.

This invention relates to antigenic sequences of the T cell receptor gamma alternate reading frame protein (TARP). TARP is expressed in breast cancer cells and prostate cancer cells. The patent application discloses immunogenic TARP polypeptides that generate an immune response to breast or prostate cancer cells that express TARP.

These include sequences modified to make them more immunogenic. The application also discloses specific TARP nucleic acid sequences and host cells transfected with these nucleic acids. This invention may be useful as a therapeutic to treat breast or prostate cancer.

Retroviral Packaging Cell Lines Based on Gibbon Ape Leukemia Virus

A. Dusty Miller (EM), Jose V. Garcia-Martinez (EM), Maribeth V. Eiden (NIMH), Carolyn A. Wilson (NIMH).

U.S. Patent 5,470,726 issued 28 Nov 1995 (DHHS Reference No. E–201–1991/0-US–02).

Licensing Contact: Pradeep Ghosh; 301/435–5282; *ghoshpr@mail.nih.gov*.

Gene therapy and gene transfer have recently been recognized as effective therapeutic tools to combat diseases. Accordingly, market demands for vectors and carriers to facilitate such interventions have surged in recent years. Retroviral vectors provide an efficient and safe means of gene transfer to eukaryotic cells. The present invention relates to genetic engineering involving retrovirus packaging cells that produce retroviral vectors. Specifically, the invention involves the expression plasmids encoding the envelop glycoproteins of a family of primate type C retrovirus, namely, the Gibbon Ape leukemia virus (GALV). Recombinant vectors derived from murine leukemia virus (MLV) have been widely used to introduce genes in human gene therapy clinical trials. A key determinant for their use in clinical gene therapy is the availability of packaging cell lines capable of producing large amounts of virus with identical titers. The present invention describes the packaging cell lines that produce MLV-based gene transfer vectors with the envelope from gibbon ape leukemia virus. Retroviral vectors produced are of high titer and have an expanded host range providing a means for gene transfer to a wide range of animal species. The gene transfer vectors produced are non-infectious and there was no evidence of production of helper virus, making these vectors safe. These cell lines are critical for producing large amounts of standardized vector necessary for efficient for in vivo and ex vivo gene transfer. Therefore, this invention has a significant commercial application as a tool in the development of diagnostic and therapeutic interventions related to gene transfer and gene therapy.

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Steven M. Ferguson,

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