

The awardee will have an option to negotiate an exclusive license to market and commercialize any new antibodies and tests developed within the scope of the research plan.

#### Role of the NIEHS

1. Provide expression vectors and recombinant protein as antigen for antibody production.
2. Work cooperatively with the company(s) to test antibodies produced for their ability to detect the KAI1 protein and determine its utility in cancer prognosis.

#### Role of the CRADA Partner

1. Assist in the isolation of recombinant proteins.
  2. Develop antisera and monoclonal antibodies to the KAI1 gene.
  3. Test the ability of antibodies to detect expression of the protein in histological sections.
  4. Develop in cooperation with the NIEHS diagnostic tests for malignant cancers on the basis of KAI1 expression.
- Selection criteria for choosing the CRADA partner(s) will include, but will not be limited to, the following:
1. Experience in monoclonal antibody and antisera production.
  2. Capability to develop diagnostic tests for screening histological sections.

Dated: July 6, 1995.

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*Deputy Director, Office of Technology Transfer.*

[FR Doc. 95-17779 Filed 7-19-95; 8:45 am]

BILLING CODE 4140-01-P

#### Government-Owned Inventions; Availability for Licensing

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Notice.

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 U.S. 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 Mr. Arthur J. Cohn, J.D., Technology Licensing Specialist, Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852-3804 (telephone 301/496-7735 ext 284;

fax 301/402-0220). A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

#### Ultraselective Opioidmimetic Peptides and Pharmacological and Therapeutic Uses Thereof

Lazarus, L.H., Salvadori, S., Temussi, P.A. (NIEHS)

Filed 30 Nov 94

Serial No. 08/347,531

Opioids and opioid receptors mediate a variety of effects in mammalian physiology including the production of analgesia, modification of the secretion of circulating peptide hormones, alteration of body temperature, depression of respiration, gastrointestinal function, and immune system activities. Opioids also have a wide range of therapeutic utilities, such as treatment of opiate and alcohol abuse, neurological diseases, neuropeptide or neurotransmitter imbalances, neurological and immune system dysfunctions, graft rejections, pain control, shock and brain injuries. Various subclasses of opioid receptors are implicated in any particular physiological function or disease process. Accordingly, it would be desirable to have opioid drugs that exhibit specificity for one subclass of the receptor so as to avoid undesirable side effects during a therapeutic regimen. This invention provides novel opioidmimetic dipeptides, tripeptides and cyclic peptides which exhibit ultraselective specificity and potency for the  $\delta$  opiate receptor. Additionally, methods of inducing analgesia and treating drug and alcohol addiction are provided. [*portfolio: Central Nervous System—Therapeutics*]

#### A Method Of Identifying CFTR-Binding Compounds Useful For Activating Chloride Conductance In Animal Cells

Pollard, H.B., Jacobson, K.B. (NIDDK)

Filed 22 Nov 94

Serial No. 08/343,714 (CIP of 07/952,965 issued as U.S. Patent 5,366,977)

Cystic fibrosis is the most common fatal genetic disease of Caucasians in the world today. The life expectancy of those affected with the disease is approximately 28 years. Cystic fibrosis affects some 30,000 children and young adults in the United States and approximately 24,000 children and young adults in Europe. Cystic fibrosis is caused by mutations in the cystic fibrosis transmembrane regulator (CFTR) gene. Chloride ( $\text{Cl}^-$ ) and sodium transport across epithelial membranes of an individual afflicted with cystic

fibrosis is abnormal. Many of the present efforts to combat the disease have focused on drugs that are capable of either activating the mutant CFTR gene product or otherwise causing additional secretion of  $\text{Cl}^-$  from affected cells. Antagonism of the  $\text{A}_1$  adenosine receptor has been shown to result in stimulating  $\text{Cl}^-$  efflux from cystic fibrosis cells. Many of the drugs currently in use or under development function by antagonizing the  $\text{A}_1$  adenosine receptor but lack specificity for the receptor and, thus, produce undesirable side effects. Likewise, antagonism of  $\text{A}_1$  adenosine receptors probably will have an additional impact on an animal that is unrelated to the cystic fibrosis affliction. The present invention provides compositions and methods of identifying compositions that overcome these disadvantages, as well as methods of treating cystic fibrosis. The compounds provided activate impaired  $\text{Cl}^-$  conductance channels and exhibit high potency, low toxicity, and little or no specificity for adenosine receptors. [*portfolio: Internal Medicine—Therapeutics, pulmonary*]

#### Inhibiting Cell Proliferation By Inhibiting Mitogenic Activity Of Macrophage Migration Inhibitor Factor

Wistow, G.J., Paralkar, V. (NEI)

Filed 16 Nov 94

Serial No. 08/340,826

The control of cell growth is of interest in the understanding of normal physiological activity and pathological conditions such as cancer. Certain mechanisms of cell proliferation in cancer appear to mimic the growth-factor-induced mitogenic pathway. Peptide growth factors act by binding to receptors on the cell surface and inducing gene expression. This invention demonstrates that one of the genes induced by growth factors, macrophage migration inhibitory factor (MIF), is involved in cell proliferation and that inhibiting MIF expression in turn inhibits both peptide-growth-factor-induced and transformed cell proliferation. The invention provides methods for inhibiting cell growth by inhibiting the mitogenic activity of MIF in the cell. Such inhibition can be performed through providing the cell with a nucleic acid that inhibits MIF expression or through inhibiting MIF activity by hindering the binding of MIF to retinoblastoma protein. The invention also provides pharmaceutical compositions having an agent that inhibits the mitogenic activity of MIF in a cell and a pharmaceutically acceptable carrier. This invention would provide a means to inhibit growth factors in cancer cells *in vivo* and thereby prevent