Licensing Contact: Jonathan Dixon; 301/435–5559; *dixonj@od.nih.gov.*

Over the past several years, dsFv-immunotoxins have generated significant interest in the research and commercial communities, as they have been shown to me more useful in certain therapeutic applications over intact antibody-immunotoxins and Fv-immunotoxins. dsFv-immunotoxins are created when a single-chain variable domain-toxin conjugate is associated with the complementary single-chain variable domain via one or more disulfide bonds to form a ''disulfide-stabilized'' Fv (dsFv)-immunotoxin.

Separation of dsFv-immunotoxin from its single-chain variable domain subunits (and any other contaminants) has thus far been achieved through a low yielding and relatively expensive process. The present invention discloses a new method of purifying dsFv-immunotoxins that has shown a three-fold increase in yield while at the same time keeping costs at a commercially reasonable level. As the demand for dsFv-immunotoxins increases, this method will give companies the ability to purify sufficient quantities to support their clinical trials and make their way to the commercial marketplace.

Optimization of Cardiac Contraction by Novel Human Kinase Mediated Differential Phosphorylation of Myosin

Dr. Neal D. Epstein (NHLBI).
DHHS Reference Nos. E–261–00/0 filed 12 Sep 2000 and E–261–00/2 filed 12 Sep 2001.
Licensing Contact: Fatima Sayyid; 301/435–4521; *sayyidf@od.nih.gov.*

This invention relates to the development of drugs that provide novel therapeutic interventions to increase the efficiency of failing hearts. It describes the cloning of the active cardiac kinase which modified the cardiac stretch-activation response and myofiber tension via phosphorylation of the beta myosin light chain molecules. These molecules are differentially phosphorylated by this kinase as a function of location to produce the spatial variation in myofiber mechanics that optimize cardiac torsion. The data in this invention indicate that targeting this cardiac light chain kinase could yield novel therapeutics to increase the efficiency of hearts failing from a variety of causes. This approach represents an alternative to present day therapeutics such as calcium blocking agents or digoxin, and thus may have the added benefit of providing therapeutics that are synergistic with present treatments.

This invention is described, in part, in Davis et al., Cell 2001 Nov 30; 107(5):631–41.

Methods of Screening for Risk of Cancer Using Human Lactoferrin DNA Probe or Primer

Christina Teng and Timothy Panella (NIEHS).
U.S. Patent 5,948,613 issued 07 Sep 1999.
Licensing Contact: Marlene Shinn-Astor; 301/435–4426; *shinnm@od.nih.gov.*

While normal breast ductal epithelium and neutrophilic granulocytes contain lactoferrin, their malignant counterparts frequently do not. The NIH announces primers or probes corresponding to the human lactoferrin gene, its promoter region, and its protein product, obtained from human breast tissue. The lactoferrin primer or probes can be used to screen for malignancy arising from tissues that normally secrete lactferrin, or as a test to check the recovery of a patient from a malignancy.

Dated: March 5, 2003.

Steven M. Ferguson,

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

[FR Doc. 03–6366 Filed 3–17–03; 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. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

Methods for Prophylaxis and Treatment of HER–2/neu Tumors

John C. Morris, Jay A. Berzofsky, Yoshio Sakai, Jong-Myun Park, Masake Terabe (all of NCI).
Serial No. 60/422,395 filed 30 Oct 2002.
Licensing Contact: Susan S. Rucker; 301/435–4478; *ruckers@od.nih.gov.*

This application relates to methods for cancer prophylaxis and treatment. More particularly, the application relates to methods for the treatment and prophylaxis of cancers caused by the activity of the HER–2/neu/erbB–2 gene employing immunotherapy. Such cancers include breast cancers, cancers of the female genital tract and some cancers of the gastrointestinal tract.

The methods claimed involve the use of a HER–2/neu vaccine employing recombinant non-replicating adenovirus expressing a HER–2/neu/erbB–2 gene. In a preferred embodiment the vaccine comprises a recombinant non-replicating adenoviral vector encoding a HER–2/neu/erbB–2 gene that is expressed as a truncated HER–2/neu/erbB–2 protein. Antigen presenting cells, such as dendritic cells infected with the recombinant adenoviral vector, process and present the truncated HER–2/neu/erbB–2 protein, thereby stimulating an immune response. Preferred HER–2/neu/erbB–2 proteins contain regions of the extracellular domain and the transmembrane domain of the intact HER–2/neu/erbB–2 gene product and do not contain any tyrosine kinase domains.

This work has not yet been published.

gp100 Cancer Antigens

Steven A. Rosenberg et al. (NCI).
U.S. Patent 5,844,075 issued 10 Dec. 1998.
Licensing Contact: Jonathan Dixon; 301/435–5559; *dixonj@od.nih.gov.*

DHHS announces the availability of select gp100 cancer antigens for licensing. These antigens are composed of a class that fall under the following definition: gp100 P Core Peptide(s), meaning any gp100 peptide of nine (9) to fifteen (15) amino acids in length which is capable of eliciting an HLA–A2.1–restricted cytotoxic T cell response, and which comprises the formula $X_1X_2X_3PGPX_5TX_4$, where X_1 is any naturally occurring amino acid, X_2 is any hydrophobic aliphatic amino acid; X_3 is any naturally occurring amino acid; X_4 is any hydrophobic aliphatic amino acid, and X_5 is the amino acid V, C, I, L, or M.

GP100 is a tumor specific melanoma antigen. GP100 has been shown to be successful in stimulating the immune response to melanoma in humans.

Novel Cyclic Polyamines That Release Nitric Oxide in a Biphasic Manner

David Waterhouse et al. (NCI).
DHHS Reference No. E–189–2002/0 filed 07 May 2002.
Licensing Contact: Norbert Pontzer; 301/435–5502; e-mail: *np59n@nih.gov.*

Nitric oxide (NO), a simple diatomic molecule, plays a diverse and complex role in cellular physiology. Although medical research is rapidly discovering potential therapeutic uses for NO, the exogenous administration of gaseous NO is not feasible because of low solubility in physiological buffers, widespread pharmacological actions and a short half-life in the body. NCI scientists have previously produced a number of nucleophile/nitric oxide adducts (diazeniumdiolates) that spontaneously dissociate at physiological pH to release nitric oxide (NO) by stable first order kinetics. These compounds allow for the localized action of NO by, for example, having NO released from biocompatible medical devices coated with the NO-releasing compounds or polymers. The half-life of NO release from currently available compounds and polymers can vary from minutes to many hours under physiological conditions. However, it could be useful to have an initial high rate of NO release followed by a subsequent slower longer term release from a single compound. These inventors have now discovered polydiazeniumdiolated materials that, as single crystals compounds, provide the multiple multiphasic NO release necessary to accomplish that goal. They also provide medical uses of these compounds such as treatment of infection, inhibition of tumor cell growth, conjugation to antibodies, treatment of ischemia/repurfusion injury, attachment to polymers, and medical substrates such as stents coated with these compounds.

Dated: March 11, 2003.

Steven M. Ferguson,

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

[FR Doc. 03–6441 Filed 3–17–03; 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. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

Lepirudin Adsorbed to Catheter

McDonald Horne (CC)
DHHS Reference No. E–295–02/0
Licensing Contact: Michael Shmilovich; 301/435–5018; *shmilovichm@od.nih.gov.*

The invention is a method for preventing venous access device (VAD) thrombosis by coating the VAD catheter with lepirudin, which has been found to be readily adsorbed by the silicone rubber of the VADs, and is expected to have good retention properties. VADs typically remain in place for weeks or months and sometimes cause clotting (thrombosis) of the veins. Accordingly, the simple technique of soaking a silicone catheter in lepirudin before venous insertion is the gist of the invention. Chronically ill patients who must be catheterized for long periods of time will benefit particularly from this technique which promises to reduce swelling and pain associated with VAD-induced thrombosis.

Peptide Inhibitors of Yersinia Phosphatase (YopH) as Potential Treatments Against Plague

Terrence Burke, Jr., et al. (NCI)
DHHS Reference No. E–263–2002
Licensing Contact: Cristina Thalhammer-Reyero; 301/435–4507; *thalhamc@od.nih.gov.*

This invention pertains to compounds, i.e., peptides or pro-drugs thereof, which are useful as inhibitors of phosphotyrosine phosphatases, and in particular, as inhibitors of the Yersinia phosphatase (YopH). The invention also provides pharmaceutical compositions and a method of inhibiting the YopH enzyme as well as a method of treating plague or Black Death. The compounds may be useful as anti-bioterrorism agents, and are potentially important for therapeutic development because they may facilitate bioavailablility, given the low ionic charge of the inhibitors.

The bacterium Yersinia pestis causes bubonic, pneumonic and septicemic plague, and it is considered as a potential bioterrorism agent. Within Yersinia is a 70 kb virulence plasmid, which encodes for a system of secreted proteins, called ''Yops'', which act either as intracellular effectors or as translocators. Yersinia's Yop system represents the archetype for one of the major virulence mechanisms in various pathogenic bacteria, referred to as type III, where extracellular bacteria that are in close contact with a eukaryotic cell deliver bacterial proteins into the cytosol of the cell. Other animal pathogens with related systems include the genera Salmonella, Shigella, Pseudomonas, Chlamydia, and Bortedella, as well as E. coli.

One such effector protein, YopH, is a protein-tyrosine phosphatase (PTP) with a C-terminal catalytic domain that is essential to Yersinia's virulence, playing an antiphagocytic role by dephosphorylating focal adhesion proteins. The phosphatase activity of YopH is required for bacterial pathogenesis. This invention relates to the use of tripeptides as inhibitors of YopH, and therefore as potential treatments of plague. More in particular, the inventors have discovered that certain structural features are required to be present on those peptides in order to be inhibitory against Yersinia's YopH.

A Varicella-Zoster Virus Vaccine Mutant That Is Markedly Impaired for Latent Infection

Jeffrey Cohen (NIAID), Edward Cox (FDA), Lesley Pesnicak (NIAID)
DHHS Reference No. E–250–02/0 filed 05 Nov 2002
Licensing Contact: Peter Soukas; 301/435–4646; *soukasp@od.nih.gov.*

Chickenpox is caused by acute infection with varicella-zoster virus (VZV). The virus spreads throughout the body and enters cells of the nervous system. Latent infection occurs and the virus establishes itself in dorsal root and cranial nerve ganglia. The latent virus subsequently can reactivate and present as zoster (shingles). The current varicella-zoster virus vaccine (Oka strain) is highly effective to protect against varicella (chickenpox), but establishes a latent infection in the central nervous system and can reactivate to cause shingles. This invention relates to a mutated form of