present, there are nineteen standardized allergen extracts available from U.S. manufacturers. Each extract is assigned a potency value for sale to the public. Potency value is an arbitrary measurement based on quantitation of the total protein content and specific allergen content within the allergen extracts (as measured with hyperimmune sheep sera), or by the inhibition of the binding of IgE from pooled allergic sera to reference allergen. These methods are generally crude and provide only integral averages. These averages are non-characteristics of the concentration of individual allergens in the extract and their respective immunoglobulin binding affinities. By contrast, this microarray uses large numbers of engineered antibodies to ''fingerprint'' the test extract. The present invention provides 10–100 allergen specific scFV or F_{ab} immunoglobulins imprinted on a solid matrix in multiple concentrations. The allergen mixture is applied to the array and the pattern of protein binding to each spot is analyzed quantitatively and qualitatively. Thus, large numbers of component allergenic proteins can be assayed quickly and simultaneously.

Epitopes of Ebola Virus Glycoproteins Useful for Vaccine Development

Carolyn A. Wilson et al. (FDA)
U.S. Provisional Application No. 60/532,677 filed 23 Dec 2003 (DHHS Reference No. E–271–2003/0–US–01)
Licensing Contact: Susan Ano; 301/435–5515; *anos@mail.nih.gov*

The current technology describes the identification of amino acid residues on Ebola glycoprotein (GP) critical for virus infection through mutation of residues in the glycoprotein-1 (GP1) of Ebola virus (Zaire strain). The amino acid residues identified through mutational analysis are conserved and can be found in all published sequences of strains of Ebola and Marburg viruses, making them a good target for development into a cross-protective vaccine or antiviral therapy. The mutations could be used to generate non-infectious Ebola viral particles for use in vaccines. These residues in wild-type filoviruses could also be targeted by compounds to prevent viral entry into cells or could potentially represent an epitope (or part of an epitope) for use as an immunogen in a vaccine. Vaccines utilizing these non-infectious particles may be safer than vaccines that use other common approaches, *e.g.* live-attenuated virus vaccines. In addition to the non-infectious particles, this technology describes the polypeptides that form them, the polynucleotide sequences encoding the polypeptides, and vectors comprising the polynucleotides. These additional materials could also form the basis of an Ebola vaccine or antiviral therapy. Also claimed are kits for detection of antibodies to Ebola involving contacting the sample containing antibodies to the polypeptides described in the invention.

Haplotypes of Human Bitter Taste Receptor Genes

Dennis Drayna, Un-Kyung Kim (NIDCD)
U.S. Provisional Application No. 60/480,035 filed 11 Jul 2003 (DHHS Reference No. E–222–2003/0–US–01); PCT Application filed 18 Jun 2004 (DHHS Reference No. E–222–2003/1–PCT–01)
Licensing Contact: Susan Carson; 301/435–5020; *carsonsu@mail.nih.gov*

Bitter taste has evolved in mammals as a crucial, important warning signal against ingestion of poisonous or toxic compounds. However, many beneficial compounds are also bitter and taste masking of bitter tasting pharmaceutical compounds is a billion dollar industry. The diversity of compounds that elicit bitter-taste sensations is very large and more than two dozen members of the T2R bitter taste receptor gene family have been identified. How individuals are genetically predisposed to respond or not to respond to the bitter taste of substances like nicotine and certain foods like broccoli may have broad implications for nutritional status and tobacco use. Large individual differences in the perception of bitterness of these compounds have been well documented, and common allelic variants of a member of the T2R bitter taste receptor gene family have been shown to underlie variation in the ability to taste the bitter compound phenylthiocarbamide (PTC) [DHHS Ref. No. E–169–2001/0–PCT–02].

Scientists at the NIDCD have extended these results to other bitter taste receptors and have sequenced 22 of the 24 known T2R genes in a series of populations worldwide, including Hungarians, Japanese, Cameroonians, Pygmies and South American Indians, and the present invention includes these isolated sequences and their variants. This includes a total of 127 SNPs and 109 different protein coding haplotypes, including those defined for the PTC Receptor (T2R38) [E–169–2001/0]. The inventors showed that 77% of the SNPs identified caused an amino acid substitution in the encoded receptor protein, giving rise to a high degree of receptor protein variation in the population. The frequencies of these different haplotypes have been shown to differ in different populations which will aid in population-specific studies, such as those targeting differences in taste perception between Europeans and Asians, for example.

The invention available for licensing includes these novel SNPs and haplotypes and methods of use, which can be used to better identify and characterize different groups of individuals within and between populations that vary in the their bitter taste abilities. This is important to the food and flavoring industry, for example, where these variants can be used to aid in the development of a variety of taste improvements in foods and orally administered medications.

A related technology also available for licensing is DHHS Ref. No. E–169–2001/0–PCT–02, Phenylthiocarbamide Taste Receptor, International Publication No. WO 03/008627.

Dated: June 24, 2004.

Mark L. Rohrbaugh,

Director, Office of Technology Transfer, National Institutes of Health.

[FR Doc. 04–14777 Filed 6–29–04; 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 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.

Maleiimide Anti-Tumor Phosphatase Inhibitors

Christophe Michejda *et al.* (NCI).

U.S. Provisional Application No. 60/546,841 filed 22 Feb 2004 (DHHS Reference No. E–110–2004/0–US–01).

Licensing Contact: George Pipia; 301/435–5560; *pipiag@mail.nih.gov*.

The present invention describes novel phosphatase inhibitors that appear to target the CDC25 family of phosphatases. The new compounds have potent activity against human liver cancer cells in vitro and in vivo against an orthotopic liver cancer in rats. In tumor cells, these new inhibitors appear to target the phosphorylation status of several cell cycle proteins that are important for cell survival and thus could represent a novel class of chemotherapeutic agents targeting cancer cells.

New Building Blocks for DNA Binding Agents

Zoltan Szekely, Christophe Michejda (NCI).

U.S. Provisional Application No. 60/508,543 filed 03 Oct 2003 (DHHS Reference No. E–291–2003/0-US–01).

Licensing Contact: George Pipia; 301/435–5560; *pipiag@mail.nih.gov*.

There remains a need for therapeutic conjugates that have improved antitumor selectivity and nucleic acid sequence-binding specificity. Ideally such conjugates will have fewer side effects and lower cytotoxicity to healthy cells and tissues. The knowledge of the geometry of conjugates allows for a rational design of therapeutic conjugates, ones that have increased specificity of binding to a minor groove of the DNA, while maintaining maximum activity of the alkylating subgroup of the conjugates. The present invention provides such conjugates. The conjugates of the present invention bind to the minor grove of DNA in a sequence-specific manner and deliver an alkylating moiety to a specific site on the DNA. The present invention provides a pharmaceutical composition comprising a pharmaceutically or pharmacologically acceptable carrier and compounds of the present invention. The present invention also provides a method of preventing or treating a disease or condition by the use of the compound. The NIH inventors currently are testing the conjugates in *in vitro* assay and are starting pre-clinical studies of the conjugates using animal cancer models.

Use of Cripto-1 as a Biomarker for Neurodegenerative Disease and Method of Inhibiting Progression Thereof

David S. Salomon (NCI), Berman Nancy (EM), Edward B. Stephens (EM).

U.S. Provisional Application No. 60/508,750 filed 03 Oct 2003 (DHHS Reference No. E–075–2003/0–US–01).

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

Cripto-1 is a gene that is currently thought to play an important role in several cancers, and is being developed in clinical trials as a cancer therapeutic.

The current invention relates to another use of Cripto-1 as a biomarker and possible therapeutic target for a variety of neurodegenerative diseases, including NeuroAids, Alzheimer's disease, MS, ALS, Parkinson's disease and encephalitis. Cripto-1 appears to be overexpressed by 20-fold or more in NeuroAids and as such may be enhanced in other inflammatory neurological diseases, and thus assist in the early detection of neurological changes associated with these diseases, as well as a possible therapeutic target for slowing progression.

Antibodies That Bind POTE and Uses Thereof

Ira H. Pastan, Tapan Y. Bera, and Byungkook Lee (NCI).

U.S. Provisional Application No. 60/546,058 filed 18 Feb 2004 (DHHS Reference No. E–325–2002/0–US–01).

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

The current invention describes a family of genes, termed Prostate, Ovary, Testis and Prostate cancer genes (POTE). POTE is highly expressed in prostate cancer and ovarian cancer, but not in essential normal tissues. Antibodies to POTE and immunotoxins that selectively bind POTE are also described.

POTE appears to be a membrane protein with at least one extracellular domain, and is therefore a desirable target for antibody or immunoconjugate therapies.

Immunogenic peptide fragments might be used to generate an immune response in a patient. This invention might also be useful as an antibody-based or immunoconjugate therapeutic to treat prostate and ovarian cancers.

DNA Encoding CAI Resistance Proteins and Uses Thereof

Elise Kohn *et al.* (NCI).

U.S. Patent 5,652,223 issued 29 Jul 1997 (DHHS Reference No. E–112–1994/0–US–01); U.S. Patent 5,981,712 issued 09 Nov 1999 (DHHS Reference No. E–112–1994/0–US–02); Serial No. 09/436,469 filed 08 Nov 1999 (DHHS Reference No. 112–1994/0–US–03).

Licensing Contact: Jesse S. Kindra; 301/435–5559; *kindraj@mail.nih.gov*.

Novel targets for therapeutic intervention in cancer proliferation and invasion are needed. Calcium influx has been shown to be required for invasion. Carboxyamid-triazole (CAI), a synthetic blocker of calcium influx in nonexcitable cells, inhibits tumor and endothelial cell motility and decreases the expression of matrix metalloproteinases involved in invasion and angiogenesis. Thus, CAI plays a role in the inhibition of malignant proliferation, invasion, and metastasis of cancer cells. The effectiveness of CAI as a cancer therapeutic agent is currently being tested in clinical trials.

The technology which is available for licensing relates to the CAI resistance (CAIR–1) gene that encodes a protein identified in CAI conditioned cells. The CAIR–1 gene provides a potential source of information about the mechanism of drug conditioning and could also be useful as a marker for detecting the acquisition of a drug conditioned phenotype and/or as a target for intervention.

In addition, CAIR was also independently identified as BAG–3 and Bis. CAIR/BAG–3/Bis has been shown to play a role in protein folding inside the cell and to modulate programmed cell death (apoptosis). Thus, the CAIR/BAG–3/Bis protein serves as an important link between pathways regulating calcium influx, protein folding, and apoptosis and may be a valuable drug discovery target for therapeutic intervention in cancer proliferation and invasion.

Circularly Permuted Ligands and Circularly Permuted Fusion Proteins

Ira H. Pastan, Robert J. Kreitman, Raj K. Puri (NCI).

U.S. Patent 5,635,599 issued 03 Jun 1997 (DHHS Reference No. E–047–1994/0–US–01). U.S. Patent 6,011,002 issued 04 Jan 2000 (DHHS Reference No. E–047–1994/1–US–01).

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

Circularly permuted proteins are ligands wherein the amino and carboxy ends have been joined together and new amino and carboxy ends are formed at a different location in the ligand. The modified ligands are as fully active as the original. The circularly permuted ligands are especially useful when employed as a component in a fusion protein of interest. Fusion proteins are polypeptide chains of two or more proteins fused together in a single polypeptide chain. A fusion protein may act as a potent cell-killing agent or as a linker to bind and enhance the interaction between cells or cellular components to which the protein binds, depending on the nature of the proteins being fused. Therefore, fusion proteins

have functional utility as a specific targeting moiety to either kill or direct an immune response to cancer cells. While some targeting moieties have shown lower specificity and affinity for their targets when incorporated into fusion proteins, the use of circularly permuted ligands improves the binding affinity of certain fusion proteins. This invention provides novel ligands and ligand fusion proteins that have a binding specificity and affinity comparable to or greater than native ligand fusion proteins.

Dated: June 22, 2004.

Steven M. Ferguson,

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

[FR Doc. 04–14778 Filed 6–29–04; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute; Notice of Closed Meeting

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 meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(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: National Cancer Institute Initial Review Group, Subcommittee A—Cancer Centers.

Date: August 5–6, 2004.

Time: 7:30 a.m. to 12 p.m.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn Chevy Chase, 5520 Wisconsin Avenue, Chevy Chase, MD 20815.

Contact Person: David E. Maslow, PhD, Scientific Review Administrator, Resources and Training Review Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Blvd., Room 8117, Bethesda, MD 20892–7405, (301) 496–2330.

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393,Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS.)

Dated: June 22, 2004.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 04–14745 Filed 6–29–04; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Eye Institute; Notice of Closed Meeting

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 meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(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: National Eye Institute Special Emphasis Panel; NEI Institutional Training Grant Applications (T32 and K12).

Date: July 15, 2004.

Time: 8:30 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Park Hyatt Washington, 24th at M Street, Washington, DC 20037.

Contact Person: Anne E. Schaffner, PhD, Scientific Review Administrator, Division of Extramural Research, National Eye Institute, 6120 Executive Blvd., Suite 350, Bethesda, MD 20892. (301) 451–2020.

(Catalogue of Federal Domestic Assistance Program Nos. 93.867, Vision Research, National Institutes of Health, HHS.)

Dated: June 22, 2004.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 04–14739 Filed 6–29–04; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Eye Institute; Notice of Closed Meeting

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 meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(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: National Eye Institute Special Emphasis Panel, Review of Small Grants for Data Analysis.

Date: July 22–23, 2004.

Time: 8:30 a.m. to 2 p.m.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn Select Bethesda, 8120 Wisconsin Ave., Bethesda, MD 20814.

Contact Person: Samuel Rawlings, PhD, Chief, Scientific Review Branch, Division of Extramural Research, National Eye Institute, Bethesda, MD 20892, (301) 451–2020.

(Catalogue of Federal Domestic Assistance Program No. 93.867, Vision Research, National Institutes of Health, HHS)

Dated: June 22, 2004.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 04–14742 Filed 6–29–04; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Environmental Health Sciences; Amended Notice of Meeting

Notice is hereby given of a change in the meeting of the National Institute of Environmental Health Sciences Special Emphasis Panel, July 28, 2004, 1:30 p.m. to July 28, 2004, 3:30 p.m., NIEHS/National Institutes of Health, Building 4401, East Campus, 79 T.W. Alexander Drive, 122, Research Triangle Park, NC, 27709 which was published in the **Federal Register** on June 4, 2004, FR 69 31617–31618.