

immunomagnetic circulating cancer cell selection and enumeration system. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statute and regulations.

### III. Electronic Access

To receive "Class II Special Controls Guidance Document: Immunomagnetic Circulating Cancer Cell Selection and Enumeration System" by fax machine, call FDA's Center for Devices and Radiological Health (CDRH) Facts-On-Demand system at 800-899-0381 or 301-827-0111 from a touch-tone telephone. Press 1 to enter the system. At the second voice prompt, press 1 to order a document. Enter the document number (1531) followed by the pound sign (#). Follow the remaining voice prompts to complete your request.

Persons interested in obtaining a copy of the guidance may also do so by using the Internet. CDRH maintains an entry on the Internet for easy access to information including text, graphics, and files that may be downloaded to a personal computer with Internet access. Updated on a regular basis, the CDRH home page includes device safety alerts, **Federal Register** reprints, information on premarket submissions (including lists of cleared submissions, approved applications, and manufacturers' addresses), small manufacturer's assistance, information on video conferencing and electronic submissions, Mammography Matters, and other device-oriented information. The CDRH Web site may be accessed at <http://www.fda.gov/cdrh>. A search capability for all CDRH guidance documents is available at <http://www.fda.gov/cdrh/guidance.html>. Guidance documents are also available on the Division of Dockets Management Internet site at <http://www.fda.gov/ohrms/dockets>.

### IV. Paperwork Reduction Act of 1995

This guidance contains information collection provisions that are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (the PRA) (44 U.S.C. 3501-3520). The collections of information addressed in the guidance document have been approved by OMB in accordance with the PRA under the regulations governing premarket notification submissions (21 CFR part 807, subpart E, OMB control number 0910-0120). The labeling provisions addressed in the guidance have been

approved by OMB under OMB control number 0910-0485.

### V. Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**), written or electronic comments regarding this document. Submit a single copy of electronic comments to <http://www.fda.gov/dockets/ecomments>. Submit two paper copies of any mailed comments, except that individuals may submit paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Comments received may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Dated: April 26, 2004.

**Linda S. Kahan,**

*Deputy Director, Center for Devices and Radiological Health.*

[FR Doc. 04-10594 Filed 5-10-04; 8:45 am]

**BILLING CODE 4160-01-S**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

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

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

**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.

#### **Eosinophil-Derived Neurotoxin, an Antimicrobial Protein With Ribonuclease Activity, is an Immunostimulant**

De Yang *et al.* (NCI).

U.S. Provisional Patent Application Nos. 60/466,797 and 60/466,796, filed 29 Apr 2003 (DHHS Reference Nos. E-175-2003/0-US-01 and E-191-2003/0-US-01).

**Licensing Contact:** Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

Eosinophil-derived neurotoxin (EDN) has *in vitro* anti-viral activity that is dependent on its ribonuclease activity. This invention discloses that EDN is a selective chemoattractant and activator of dendritic cells, resulting in dendritic cell migration, maturation, and a production of a wide variety of cytokines. Based on these potent chemotactic and activating effects on dendritic cells, EDN might be useful as a clinical immunoadjuvant for the promotion of immune responses to specific antigens of tumors or pathogenic organisms.

#### **Detection of Antigen-Specific T Cells and Novel T Cell Epitopes by Acquisition of Peptide/HLA-GFP Complexes**

Steven Jacobson, Utano Tomaru, and Yoshihisa Yamano (NINDS).

U.S. Provisional Application No. 60/457,006 filed 24 Mar 2003 (DHHS Reference No. E-084-2003/0-US-01); U.S. Provisional Application No. 60/480,083 filed 20 Jun 2003 (DHHS Reference No. E-084-2003/1-US-01); PCT Application filed 24 Mar 2004 (DHHS Reference No. E-084-2003/2-PCT-01).

**Licensing Contact:** Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

This invention relates to a method for identifying specific T cell epitopes and antigen-specific T cells through labeling with an HLA-GFP complex expressed on an antigen-presenting cell. The T cells acquired the peptide-HLA-GFP complex through T cell mediated endocytosis upon specific antigen stimulation. This basic method can be used for several purposes. First, it can be used to generate a T-cell immune response through the attachment of a reporter peptide to the antigen-presenting cell. It can also be used as a way to assay a population of cells to determine whether any T cells specific for a particular antigen are present. This might be useful in applications related to autoimmunity, infectious disease, or cancer. Third, it can be used as a therapeutic to eliminate antigen-specific T cells associated with disease, if coupled to a toxic moiety.

#### **Protein Kinase C Inhibitor, Related Composition, and Method of Use**

Shaomeng Wang, Peter Blumberg (NCI), Nancy Lewin (NCI).

U.S. Provisional Patent Application No. 60/451,214 filed 28 Feb 2003 (DHHS Reference No. E-073-2003/0-US-01); PCT Application No. PCT/US04/05855 filed 26 Feb 2004 (DHHS Reference No. E-073-2003/0-PCT-02).

*Licensing Contact:* Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

Protein kinase C is a critical component in cellular signaling, involved in cellular growth, differentiation, and apoptosis. It has been identified as a promising therapeutic target for cancer, diabetic retinopathy, and Alzheimer's disease, among other indications. This invention relates to lead compounds that can inhibit protein kinase C isoforms through disruption of their C1 domains. The inventors also found that these compounds possess isoform selectivity, an important feature for therapeutic specificity. Finally, although the disclosed compounds are previously known molecules, novel structures are described in the invention that have further improved specificity.

#### Recombinant Immunotoxin and Use in Treating Tumors

Ira Pastan (NCI), Masanori Onda (NCI), Nai-Kong Cheung (EM).  
PCT Application No. PCT/US03/38227 filed 01 Dec 2003 (DHHS Reference No. E-051-2003/0-PCT-02).

*Licensing Contact:* Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

The current invention relates to the 8H9 monoclonal antibody (MAb), which is highly reactive with a cell surface glycoprotein expressed on human breast cancers, childhood sarcomas, and neuroblastomas but is not reactive with the cell surface of normal human tissues. This specific reactivity suggests that this antibody could be useful as a diagnostic, or as a therapeutic molecule to treat breast cancer, osteosarcoma, and neuroblastoma. The PCT application claims the 8H9 protein, 8H9 antibodies, 8H9 immunotoxins, pharmaceutical compositions, and methods of use.

More information can be found in a recent publication: M. Onda *et al.*, "In vitro and in vivo cytotoxic activities of recombinant immunotoxin 8H9(Fv)-PE38 against breast cancer, osteosarcoma, and neuroblastoma," *Cancer Res.* 2004 Feb 15;64(4):1419-1424.

#### Methods of Diagnosing Potential for Developing Hepatocellular Carcinoma or Metastasis and of Identifying Therapeutic Agents

Xin Wei Wang *et al.* (NCI).  
U.S. Provisional Application No. 60/370,895 filed 05 Apr 2002 (DHHS

Reference No. E-125-2002/0-US-01); PCT Application No. PCT/US03/10783 filed 04 Apr 2003 (DHHS Reference No. E-125-2002/0-PCT-02).

*Licensing Contact:* Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

Expression of nearly 10,000 genes was analyzed in hepatocellular carcinoma (HCC) tumors, and a molecular signature was identified that targets genes that are most likely relevant to the prediction outcome of metastases, including patient survival. A specific therapeutic target protein was also identified, and antibodies against this protein prevent invasion of metastatic HCC cells in vitro. These data identify this target protein both as a diagnostic marker and a therapeutic target for metastatic HCC. In addition, by analyzing premalignant cirrhotic liver tissues from high risk liver disease patients, a molecular signature were identified that may be useful in diagnosing early onset of HCC. Some of the biomarkers have been validated with serum samples to have potentially predictive values.

This invention may be useful in diagnosing early onset of HCC and HCC metastatic tumors, evaluating risk for development of HCC and HCC metastatic tumors, and identifying HCC therapeutic targets. This invention also identifies a specific therapeutic target protein, and identifies methods of identifying antagonists to this protein, which might be useful in developing a variety of HCC therapeutics.

#### p-Toluenesulfonylhydrazide Derivatization for Separation and Measurement of Endogenous Estrogen Metabolites by High-Pressure Liquid Chromatography-Electrospray-Mass Spectrometry

Xia Xu, David Waterhouse, Joseph Saavedra, Larry Keefer, Regina Ziegler (NCI).

U.S. Provisional Patent Application 60/372,848 filed 15 Apr 2002 (DHHS Reference No. E-103-2002/0-US-01); PCT Application No. PCT/US03/11562 filed 15 Apr 2003, which published as WO 03/089921 on 30 Oct 2003 (DHHS Reference No. E-103-2002/0-PCT-02).

*Licensing Contact:* Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

The current invention relates to a method for measuring endogenous estrogen levels, and this technology may be generalizable to all endogenous ketolic steroids, including estrogens, androgens, and phytoestrogens.

Specifically, the current invention is a derivatization technique that forms

estrogen-p-toluenesulfonylhydrazones, which can be separated and then measured using high-pressure liquid chromatography-electrospray-mass spectrometry (HPLC-ESI-MS). This method offers a number of improvements over current methods. It is more sensitive, it is faster, it is more accurate, and it requires a smaller sample size.

#### Cloning and Mutational Analysis of the Hyperparathyroidism-Jaw Tumor Syndrome (HPT-JT) Gene

John D. Carpten *et al.* (NHGRI).  
U.S. Provisional Application No. 60/378,022 filed 13 May 2002 (DHHS Reference No. E-004-2002/0-US-01); PCT Application No. PCT/US03/15081 filed 13 May 2003, which published as WO 03/094860 on 20 Nov 2003 (DHHS Reference No. E-004-2002/0-PCT-02).

*Licensing Contact:* Brenda Hefti; 301/435-4632; [heftib@mail.nih.gov](mailto:heftib@mail.nih.gov).

Hyperparathyroidism is a key feature of some hereditary endocrine neoplasias and the autosomal dominant disorder HPT, all of which are characterized by the presence of tumors in endocrine tissues. The current invention identifies a series of mutations in chromosome 1 open reading frame 28 (C10RF28)—the HPT-JT gene. Linkage analysis and physical mapping studies of clinical samples from multiple families with HPT-JT syndrome were used to identify these mutations. These genomic changes are predicted to result in truncated gene products.

This new technology might be useful for: (1) Diagnosis of HPT-JT and/or a predisposition to HPT-JT; (2) development of a treatment for HPT-JT; and (3) determination of the effectiveness of various potential HPT-JT therapies.

Additional information may be found in: J.D. Carpten *et al.*, "HRPT2, encoding parafibromin, is mutated in hyperparathyroidism-jaw tumor syndrome," *Nat. Genet.* (2002 Dec) 32(4):676-80, Epub 2002 Nov 18.; J.D. Chen *et al.*, "Hyperparathyroidism-jaw tumour syndrome," *J. Int. Med.* (2003 Jun) 253(6):634-642, doi: 10.1046/j.1365-2796.2003.01168.x; T.M. Shattuck *et al.*, "Somatic and germ-line mutations of the HRPT2 gene in sporadic parathyroid carcinoma," *N. Engl. J. Med.* (2003 Oct) 349(18):1722-1729; W.F. Simonds *et al.*, "Familial isolated hyperparathyroidism is rarely caused by germline mutation in HRPT2, the gene for the hyperparathyroidism-jaw tumor syndrome," *J. Clin. Endocrinol. Metab.* (2004 Jan) 89(1):96-102, doi: 10.1210/jc.2003-030675; A. Villablanca *et al.*, "Germline and de

novo mutations in the *HRPT2* tumour suppressor gene in familial isolated hyperparathyroidism (FIHP)," *J. Med. Genet.* (2004 Mar) 41(3):e32, doi: 10.1136/jmg.2003.012369.

Dated: May 4, 2004.

**Steven M. Ferguson,**

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

[FR Doc. 04-10607 Filed 5-10-04; 8:45 am]

BILLING CODE 4140-01-P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

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**ACTION:** Notice.

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#### Mouse Model With Targeted Disruption of the Neurofibromatosis Type-1 (Nf1) Gene

Neal G. Copeland *et al.* (NCI).

DHHS Reference No. E-162-2004/0—Research Tool

*Licensing Contact:* Jesse S. Kindra; 301-435-5559; [kindraj@mail.nih.gov](mailto:kindraj@mail.nih.gov).

This invention relates to a mouse model having a targeted disruption of the neurofibromatosis type-1 (NF1) gene. This mouse model is useful as a research tool in studying some forms of human neuron diseases/injuries in addition to juvenile chronic myelomonocytic leukemia (JMML).

The neurofibromatosis (NF1) gene shows significant homology to

mammalian GAP and is an important regulator of the Ras signal transduction pathway. To study the function of NF1 in normal development and to develop a mouse model of NF1 disease, the inventors have used gene targeting in ES cells to generate mice carrying a null mutation at the mouse *Nf1* locus.

Although heterozygous mutant mice, aged up to 10 months, have not exhibited any obvious abnormalities, homozygous mutant embryos die in utero. Embryonic death is likely attributable to a severe malformation of the heart. Interestingly, mutant embryos also display hyperplasia of neural crest-derived sympathetic ganglia. These results identify new roles for NF1 in development and indicate that some of the abnormal growth phenomena observed in NF1 patients can be recapitulated in neurofibromin-deficient mice. In addition, lethally-irradiated wild type mice transplanted with fetal liver cells taken from NF1 null embryos develop a form of juvenile chronic myelomonocytic leukemia (JMML) that is very similar to what is seen in children with NF1 disease. This mouse model can be used to test various therapeutic treatments for this disease.

#### Novel Antisense Oligonucleotides Targeting Folate Receptor Alpha

Mona S. Jhaveri, Patrick C. Elwood, Koong-Nah Chung (NCI).

U.S. Patent Application No. 10/093,523 filed 11 Mar 2002, U.S. Pat. App. Pub. No. U.S. 2003/0050267 A1 (DHHS Reference No. E-321-2000/0-EIR-00).

*Licensing Contact:* Thomas P. Clouse; 301/435-4976; [clousetp@mail.nih.gov](mailto:clousetp@mail.nih.gov).

Ovarian cancer is the fifth leading cause of cancer death for women in the United States. Drug resistance of ovarian tumors to chemotherapy is a common problem resulting in only 20 to 30 percent overall 5-year survival rates.

Folate is a vitamin that is required for cell survival. Some cancer cells, including ovarian carcinomas, have an abundance of a folate-binding protein termed the human alpha folate receptor (ahFR). It is believed that elevated levels of ahFR in cancer, relative to normal cells, contribute to the cellular malignant phenotype by mediating increased folate uptake or by generating positive regulatory growth signals.

This invention comprises a DNA-based therapy that selectively targets and diminishes the levels of ahFR using antisense oligonucleotides that block the transcription of the ahFR gene. Studies have shown that this invention significantly decreases proliferation of cultured cancer cells and sensitizes these cells to treatment with

chemotherapeutic drugs. Further development of ahFR-targeted antisense oligonucleotides and related compounds has potential therapeutic value for a range of cancers that express increased levels of ahFR, including cancers of the ovary, cervix, uterus, and brain.

Dated: May 5, 2004.

**Steven M. Ferguson,**

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

[FR Doc. 04-10689 Filed 5-10-04; 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 Special Emphasis Panel, Ovarian Cancer SPORE.

*Date:* May 18, 2004

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

*Agenda:* To review and evaluate grant applications.

*Place:* The Crystal City Marriott at National Airport, 1999 Jefferson Davis Highway, Arlington, VA 22202.

*Contact Person:* Olivia Preble Bartlett, PhD, Chief, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, 8th Floor, Room 8121, 6116 Executive Boulevard, Rockville, MD 20892-7405. (301) 594-2501; [op2t@nih.gov](mailto:op2t@nih.gov).

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(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,