Licensing Contact: Cristina Thalhammer-Reyero; 301/496–7056 ext. 263; e-mail: *thalhamc@od.nih.gov*

The present invention relates to a new method for preparing fluorescence-labeled cDNA probes for DNA microarray studies, which only uses about 1/20th as much input RNA as the conventional methods require. The method allows making high quality probes from as little as 1 ug of total RNA without RNA or signal amplification. It is based on priming cDNA synthesis with random hexamers to the 5′ ends of which amino allyl modified bases have been added. Coupling of the fluorescent dye to the amine residues is performed after the cDNA is reverse transcribed. The method can be used in tandem with RNA amplification (and/or signal amplification) to label probes from 10 or fewer cells.

Furthermore, the invention also relates to a novel method to amplify RNA derived from single cells using T3-random 9mers and a new lysing method, which allow probe-labeling capabilities that are approaching the single cell level.

DNA Microarray technology has become one of the most important tools for high throughput studies in medical research with applications in the areas of gene discovery, gene expression and mapping. The suitability of DNA Microarray for profiling diseases and for identifying disease-related genes has also been also well documented. Companies like Affimatrix, Incyte and others have commercialized DNA microarrays, printed for a variety of applications. Most studies using DNA arrays involve preparation of fluorescent-labeled cDNA from the mRNA of the studied organism. The cDNA probes are then allowed to hybridize to the DNA fragments printed on the array, and the array is scanned and the data analyzed. Good results depend on a number of factors including high quality arrays and well-labeled probes. In order to achieve adequate sensitivity and reproducibility, probes have had to be prepared from rather large amounts of RNA using other methods.

Use of Lipoxygenase Inhibitors and PPAR Ligands as Anti-Cancer Therapeutic and Intervention Agents

James L. Mulshine (NCI) and Marti Jett
DHHS Reference No. E–069–01/0 filed 29 Jun 2001
Licensing Contact: Catherine Joyce; 301/496–7056 ext. 258; e-mail: *joycec@od.nih.gov*

This technology pertains to the use of inhibitors of the 5-lipoxygenase (5–LO) pathway for treating cancer. The use of 5–LO inhibitors for cancer growth inhibition has been previously described. The advancements in the technology that lead to the instant invention are the further characterization of the role of the 5–LO pathway in breast cancer growth as follows:

1. Growth stimulation of breast cancer cells with 5–HETE, a metabolite from the 5–LO pathway;

2. The upregulation of peroxisome proliferator-activated receptors, alpha and gamma (PPARα and PPARγ), in response to 5–LO inhibitors, and growth reduction of breast cancer cells with each of four PPAR ligands.

Therefore, the instant invention relates to a method of treating an epithelial derived cancer by administering an inhibitor to an enzyme that metabolizes arachidonic acid and a PPAR ligand, or derivative thereof.

The above-mentioned invention is available for licensing on an exclusive or non-exclusive basis.

Dated: July 11, 2002.

Jack Spiegel,

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

[FR Doc. 02–18511 Filed 7–22–02; 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.

RF Ablation Needle Tracked With Magnetic Position Sensing

Bradford J. Wood (CC), Filip Banovac, Kevin Cleary
DHHS Reference No. E–348–01/0 filed 01 Mar 2002
Licensing Contact: Dale Berkley; 301/496–7735 ext. 223; e-mail: *berkleyd@od.nih.gov*

The invention is a method for using a newly developed position sensing device to determine the three-dimensional position of a needle for precision placement in interventional procedures. The method can be applied to accurate placement of a radiofrequency ablation probe for percutaneous treatment of neoplasms in the liver, kidney, or other solid organs, nodules or lymph nodes. The method incorporates a magnetic field based position sensing device that can track coils of only 0.9 mm diameter by 8 mm in length. These coils can be embedded in needles and other instruments to directly track the tip of these instruments. Based on a pre-operative CT scan, the position of these instruments relative to the anatomy can be displayed on a graphical user interface along with targeting assistance for the physician.

Direct Cell Target Analysis

Michael R. Emmert-Buck (NCI)
DHHS Reference No. E–100–01/0 filed 26 Apr 2002
Licensing Contact: Dale Berkley; 301/496–7735 ext. 223; e-mail: *berkleyd@od.nih.gov*

The invention is a novel, non-mechanical method for studying the molecular content of specific normal and/or diseased cell populations in a heterogeneous biological tissue section. Since the procedure is based on biomolecular targeting, it requires minimal effort on the part of the investigator, and can be easily and rapidly applied to a large number of cells. The invention can be applied in one of two ways. In the first scenario, a biological probe (i.e., antibody or oligonucleotide) is allowed to bind to a unique protein or mRNA expressed in the targeted cells. The probe is linked to an enzyme (such as reverse transcriptase or lactoperoxidase) that will specifically label the biomolecules in the targeted cell population. For example, if lactoperoxidase is utilized, the proteins in the targeted cells will subsequently be labeled with I-125, whereas, the proteins in the non-targeted cells will not be labeled and will be ''invisible'' in

the subsequent analysis step. The entire tissue section(s) is then quickly scraped into a tube containing lysis buffer and the sample is ready for analysis. As an example, the protein lysate could be applied to a two-dimensional polyacrylamide gel (2D-PAGE) to examine the proteomic profile of the targeted cells. In the second scenario, the biological probe is attached to a ''moiety'' that will activate an LCM (Laser Capture Microdissection) film, either by generating heat in the presence of an enzyme or absorbing laser light at the correct wavelength by virtue of an appropriate dye. In this approach, the probe is hybridized to the targeted cells in the tissue section, which is then covered by the LCM film. The entire tissue section is then exposed to the laser, thereby activating the moiety such that the LCM film is focally melted only above the targeted cell types. The LCM film is then removed and all of the targeted cells are procured on the film for subsequent molecular analysis. Overall, the invention is an alternative to the classical mechanical methods of microdissection, and offers several advantages with respect to specificity, selectivity, speed, and ease of use.

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

Carpten et al. (NHGRI)
DHHS Reference No. E–004–02/0 filed 13 May 2002
Licensing Contact: Richard Rodriguez; 301/496–7056 ext. 287; e-mail: *rodrigur@od.nih.gov*

Hyperparathyroidism is a key feature of some hereditary endocrine neoplasias and the autosomal dominant disorder HPT-JT, 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.

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

Xin Wei Wang et al. (NCI)
DHHS Reference No. E–125–02/0 filed 05 Apr 2002
Licensing Contact: Richard Rodriguez; 301/496–7056 ext. 287; e-mail: *rodrigur@od.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.

This invention may be useful in diagnosing 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.

Dated: July 11, 2002.

Jack Spiegel,

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

[FR Doc. 02–18512 Filed 7–22–02; 8:45 am]

BILLING CODE 4140–01–P

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 Ocular Albinism RFA.

Date: August 1, 2002.

Time: 10 am to 3 pm.

Agenda: To review and evaluate grant applications.

Place: Alexandria Old Town, 1767 King Street, Alexandria, VA 22314.

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.

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. 93.867, Vision Research, National Institutes of Health, HHS)

Dated: July 16, 2002.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 02–18502 Filed 7–22–02; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of 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 a meeting of the National Heart, Lung, and Blood Advisory Council.

The meeting will be open to the public as indicated below, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the 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/or contract proposals 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 and/or contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Heart, Lung, and Blood Advisory Council.

Date: September 5, 2002.

Open: 8 a.m. to 2 p.m.

Agenda: For discussion of program policies and issues.