Licensing Contact: Cristina Thalhammer-Reyero; 301/435–4507; *thalhamc@mail.nih.gov.*

Available for licensing and commercial development is a new method for labeling nucleic acid molecules for use in hybridization reactions, and kits employing these methods. The fluorescence-labeled cDNA probes for DNA microarray studies only use about 1/20th as much input RNA as the conventional methods. 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. 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.

The technology is further described in Xiang CC, Kozhich OA, Chen M, Inman JM, Phan QN, Chen Y, Brownstein MJ. ''Amine-modified random primers to label probes for DNA microarrays.'' Nat Biotechnol. 2002 Jul; 20(7): 738–42.

Methods for Manipulating Nucleic Acids

Charles Xiang and Michael J. Brownstein (NIMH)

U.S. Patent Application No. 10/269,515 filed 11 Oct 2002, published as US2003170675 on 11 Sept 2003 (DHHS Reference No. E–098–2001/1) and International Application PCT/US03/33319 filed 10 Oct 2003, published as WO 200/033669 on 22 April 2004 (DHHS Reference No. E–098–2001/2)

Licensing Contact: Cristina Thalhammer-Reyero; 301/435–4507; *thalhamc@mail.nih.gov.*

Available for licensing and commercial development are methods of labeling nucleic acid probes for the detection of nucleic acids molecules, for instance producing labeled probes for detecting hybridization signals, such as those from a microarray. This disclosure provides new methods for amplifying nucleic acid templates from very small samples, even as small as one cell. Nucleic acid templates amplified by the disclosed methods can be used in combination with any method that requires amplified nucleic acid. In addition, the amplified nucleic acid can be labeled with any labeling method, such as the labeling method disclosed herein. Also provided are methods for preparing modified nucleotide probes, from either amplified or unamplified nucleic acid templates. In one embodiment, the method includes the incorporation of modified nucleic acids into random primers that are used to initiate polymerization of a probe molecule. In another embodiment, the random primers include nucleotides that are modified by amine groups (such as aminoallyl moieties). In yet other embodiments, the modified nucleotides comprise a detectable molecule, such as a fluorophore or hapten. The disclosure also provides an improved method of extracting RNA from fixed cells or tissue sections for subsequent use as RNA templates or for generating labeled probe. In one specific embodiment, the cells are fixed with Dithio-bis (Succinimidyl Propionate) (DSP). Also disclosed are kits for producing a labeled hybridization probe, using a modified random primer, or for probing an array, and kits for amplifying nucleic acid templates from very small samples.

The technology is further described in: Xiang CC, Chen M, Kozhich OA, Phan QN, Inman JM, Chen Y, Brownstein MJ. ''Probe generation directly from small numbers of cells for DNA microarray studies.'' Biotechniques. 2003 Feb;34(2):386–8, 390, 392–3; Xiang CC, Chen M, Ma L, Phan QN, Inman JM, Kozhich OA, Brownstein MJ. ''A new strategy to amplify degraded RNA from small tissue samples for microarray studies.'' Nucleic Acids Res. 2003 May 1; 31(9):e53; Xiang CC, Brownstein MJ. ''Preparing fluorescent probes for microarray studies.'' Methods Mol Biol. 2003; 224:55–60; and Xiang CC, Mezey E, Chen M, Key S, Ma L, Brownstein MJ. ''Using DSP, a reversible cross-linker, to fix tissue sections for immunostaining, microdissection and expression profiling'' Nucleic Acids Res. 2004 Dec 16; 32(22): e185.

Dated: April 11, 2005.

Steven M. Ferguson,

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

[FR Doc. 05–7848 Filed 4–19–05; 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.

Triptolide To Induce Immunotolerance

Xin Chen *et al.* (NCI).

U.S. Provisional Application 60/638,640 filed 22 Dec 2004 (DHHS Reference No. E–358–2004/0–US–01).

Licensing Contact: Fatima Sayyid; (301) 435–4521; *sayyidf@mail.nih.gov.*

Dendritic cells represent a heterogeneous population of antigen-presenting cells that initiate primary immune responses by activating naive T cells and subsequently the effector cells of the adaptive immune system. Accordingly, dendritic cells play an

essential role in such conditions as autoimmune diseases, graft rejection, human immunodeficiency virus infection and the generation of T cell-dependent antibodies. The Chinese herb *Tripterygium Wilfordii Hook F* (TWHF) has been used in traditional Chinese medicine for the treatment of autoimmune diseases. A major active component isolated from TWHF is triptolide and it suppresses T lymphocyte activation.

The present invention relates to compositions and methods for inhibiting the activation of dendritic cells. The methods are useful for therapies related to conditions mediated by the activation of dendritic cells with an effective amount of a composition comprising triptolide or analog or derivative thereof, thereby inhibiting activation of dendritic cells.

In addition to licensing, the technology is available for further development through collaborative research opportunities with the inventors.

Wild-Type and DNA Polymerase Beta Null Mouse Embryotic Fibroblast Cell Lines Harboring a lambda-LIZ Transgene

Robert W. Sobol, Jr., Samuel H. Wilson (NIEHS).

DHHS Reference No. E–049–2000/0—Research Tool.

Licensing Contact: Marlene Shinn-Astor; (301) 435–4426; *shinnm@mail.nih.gov.*

Of great utility in toxicology and DNA repair research are knockout mice with cell lines enabling one to evaluate generations of gene mutations as a direct function of base excision repair. Of particular importance are lambda-LIZ transgenes. Likewise, wild-type and beta-pol null cell lines are equally important. While there exist cell lines carrying the lambda-LIZ transgene, only wild-type cells are currently available. And while wild-type and beta-pol null cell lines exist, none carry the lambda-LIZ transgene.

The present cell line incorporates both of these beneficial properties. These cell lines were created by crossing a transgenic mouse with multiple copies of the lambda-LIZ transgene with a mouse with but a single copy of the DNA polymerase beta. Rebreeding offspring produced cells of both wild type and beta-pol null genotype. The utility of these cells stem from the deficiency in base excision repair as a result of the null mutation in the DNA polymerase beta gene.

Also available for licensing are cell lines created using: Ung KO mice + lambda-LIZ transgene; Aag KO mice + lambda-LIZ transgene; PMS–2 KO mice + lambda-LIZ transgene; Pol-beta/Aag double KO mice + lambda-LIZ transgene; Pol-beta/PMS–2 double KO mice + lambda-LIZ transgene; Aag/PMS–2 double KO mice + lambda-LIZ transgene.

Dated: April 11, 2005.

Steven M. Ferguson,

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

[FR Doc. 05–7849 Filed 4–19–05; 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 invasions of personal privacy.

Name of Committee: National Cancer Institute Special Emphasis Panel, Brain Tumors.

Date: June 14, 2005.

Time: 9 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree Hotel & Executive Mtg Ctr. Rockville, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Claudio A. Dansky Ullmann, MD, Scientific Review Administrator, National Cancer Institute, Division of Extramural Activities, Grants Review Branch, Research Programs Review Branch, 6116 Executive Blvd., RM 8119, MSC 8328, Bethesda, MD 20892, 301–451–4761, *ullmannc@mail.nih.gov.*

(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: April 12, 2005.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 05–7861 Filed 4–19–05; 8:45 am]

BILLING CODE 4140–01–M

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 meetings.

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, Innovations in Cancer Sample Preparations.

Date: June 20, 2005.

Time: 8 a.m. to 6 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda Marriott, 5151 Pooks Hill Road, Bethesda, MD 20814.

Contact Person: Kenneth L. Bielat, PhD, Scientific Review Administrator, Division Of Extramural Activities, National Cancer Institute, National Institute of Health, 6116 Executive Boulevard, Room 7147, Bethesda, MD 20892, (301) 496–7576, *bielatk@mail,nih.gov.*

(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: April 12, 2005.

LaVerne Y. Stringfield,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 05–7862 Filed 4–19–05; 8:45 am]

BILLING CODE 4140–01–M