

contemplated license should be directed to Andrew Watkins, Director, Technology Transfer Office, Centers for Disease Control and Prevention (CDC), 4770 Buford Highway, Mailstop K-79, Atlanta, GA 30341, telephone: (770) 488-8610; facsimile: (770) 488-8615.

Dated: March 14, 2006.

**James D. Seligman,**

*Chief Information Officer, Centers for Disease Control and Prevention.*

[FR Doc. E6-4048 Filed 3-20-06; 8:45 am]

**BILLING CODE 4163-18-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, 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.

#### Rapid Methods for Human Artificial Chromosome (HAC) Formation

Vladimir Larionov (NCI), Hiroshi Masumoto (NCI), Megumi Nakano (NCI), Vladimir Noskov (NCI), Natalay Kouprina (NCI), J. Carl Barrett (NCI), et al.

U.S. Provisional Application No. 60/669,589 filed April 8, 2005 (HHS Reference No. E-128-2005/0-US-01)

*Licensing Contact:* Susan Carson, D.

Phil., 301/435-5020;

*carsonsu@mail.nih.gov.*

Human artificial chromosomes (HACs) provide a unique opportunity to develop a new generation of vectors for therapeutic use as gene expression and

delivery systems. The advantages of a high-capacity, non-integrating chromosome-based vector capable of autonomous replication and long-term gene expression are evident for potential use in gene therapy and this area is one of active research. In particular, the generation of a functional centromere (a complex structure needed for segregation at cell division) has been recognized as key in the production of synthetic chromosomes. However, a typical human centromere extends over many millions of base pairs containing mainly alphoid satellite DNA (171 bp repeating units) organized into higher order repeats (HORs), which have been difficult to fully characterize or modify readily. There remains a need to elucidate the structural requirements of alphoid DNA arrays for efficient de novo assembly of centromere structure in order to construct HAC vectors able to carry intact mammalian genes capable of fully regulated gene expression and which can be stably maintained in the host nucleus for use in gene therapy.

The group of Dr. Larionov at the NCI and colleagues have recently developed a novel strategy to rapidly construct large synthetic alphoid DNA arrays with a predetermined structure by in vivo recombination in yeast (*Nucleic Acids Res.*, Sep 2005; 33: e130). The invention is a two step method involving (1) rolling-circle amplification (RCA) of a short alphoid DNA multimer (e.g. a dimer) and (2) subsequent assembly of the amplified fragments by in vivo homologous recombination during transformation with a Transformation-Associated Recombination targeting vector (TAR-NV) into yeast cells. This method or Recombinational Amplification of Repeats (RAR) has been used to construct sets of different synthetic alphoid DNA arrays varying in size from 30 to 120 kb which were shown to be competent in HAC formation. Thus, these long arrays are engineered centromere-like regions that permit construction of mammalian artificial chromosomes with a predefined centromeric region structure. As any nucleotide can be easily changed into an alphoid dimer before its amplification, this new system is optimal for identifying the critical regions of the alphoid repeat for de novo centromere seeding.

The Mammalian Artificial Chromosome Portfolio [HHS Ref. No. E-128-2005/0-US-01 and HHS Ref. No. E-253-2000/0-US-03], including methods of generating engineered centromeric sequences, mammalian artificial chromosomes and methods of their use is available for licensing and

will be of direct use to those interested in vectors providing long-term regulated expression of genes used in therapy for human disease.

Related technologies available for licensing also include: the TAR cloning Portfolio [HHS Ref. No. E-121-1996/0-US-06 (USPN 6,391,642 and global IP coverage); HHS Ref. No. E-158-2001/0-US-02, U.S. Publication No. US2004/0248289 filed October 4, 2002].

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

#### Transformation-Associated Recombination (TAR) Cloning

Vladimir Larionov (NCI), Natalay Kouprina (NCI), Michael A. Resnick (NIEHS), et al.

U.S. Patent No. 6,391,642 issued May 21, 2002 (HHS Reference No. E-121-1996/0-US-06) and global IP coverage

*Licensing Contact:* Susan Carson, D. Phil., 301/435-5020;

*carsonsu@mail.nih.gov.*

Transformation-Associated Recombination (TAR) cloning in yeast is a unique method for selective isolation of large chromosomal fragments or entire genes from complex genomes without the time-consuming step of library construction (*PNAS* (1996) 93, 491-496). The technique involves homologous recombination during yeast spheroplast transformation between genomic DNA and a TAR vector that has short (approximately 60bp) 5' and 3' gene targeting sequences (hooks). Further, because up to 15% sequence divergence does not prevent recombination in yeast, TAR cloning is highly efficient for isolation of gene homologs and syntenic regions. Using this technology, chromosomal regions up to 250kb can be rescued in yeast as circular YACs within 3-5 working days (*NAR* (2003) 31, e29; *Current Protocols in Human Genetics* (1999) 5.17.1).

NIH researchers Drs. Larionov, Kouprina and Resnick have championed the use of this technology and TAR cloning has been used to efficiently isolate haplotypes, gene families (*Genome Research* (2005) 15, 1477) as well as genomic regions which are not present in existing BAC libraries. Known mutations and new modifications, including point mutations, deletions and insertions, can easily be introduced into DNA fragments hundreds of kilobases in size without introducing any unwanted alterations. The modified DNAs can then be tested functionally in mammalian cells and transgenic mice. TAR has also been used for structural

biology studies, long-range haplotyping, evolutionary studies, centromere analysis and analysis of other regions which cannot be cloned by a routine technique based on in vitro ligation (Kouprina and Larionov (2005) Recent Developments in Nucleic Acids Research, in press). In particular, construction of human artificial chromosome vectors and the combining of a HAC vector with a gene of interest can be effectively performed using the TAR methodology. Human genes isolated by TAR for expression in HACs include HPRT (60kb), BRCA1 (84kb), BRCA2 (90kb), PTEN (120kb), hTERT (60kb), KA11 (200kb), ASPM (70kb), SPANX-C (83kb) among others. TAR is a flexible and efficient means for employing in vivo recombination in yeast in order to clone entire genomic loci which can then be used for structural and functional analysis and for expression in HAC vectors for a variety of uses including for potential use in gene therapy.

The TAR cloning Portfolio [HHS Ref. No. E-121-1996/0-US-06 and HHS Ref. No. E-158-2001/0-US-02, U.S. Patent Application Publication No. US2004/0248289 filed 04 Oct 2002], including methods of use and vectors, is available for licensing and will be of direct use to those using a functional genomics approach in their work.

Related technologies available for licensing also include: the Mammalian Artificial Chromosome Portfolio [HHS Ref. No. E-128-2005/0-US-01, U.S. Provisional Patent Application No. 60/669,589 filed 08 Apr 2005 and HHS Ref. No. E-253-2000/0-US-03, U.S. Patent Application Publication No. U.S. 2004/0245317 filed April 8, 2002].

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

#### **Monoclonal Antibodies Which Specifically Bind to the Ligand Hepatocyte Growth Factor (HGF) and are Useful in the Treatment of Cancer**

Boliang Cao and George Vande Woude (both of NCI)

U.S. Patent Application No. 10/129,596 filed September 30, 2002 (HHS Reference No. E-262-1999/1-US-02), which is a 371 application of PCT/US00/31036 filed November 9, 2000 and which claims priority to U.S. Provisional Application No. 60/164,173 filed November 9, 1999

*Licensing Contact:* Susan S. Rucker; 301/435-4478; [ruckersu@mail.nih.gov](mailto:ruckersu@mail.nih.gov).

The invention described and claimed in this patent application provides for

compositions and methods for the treatment of cancers associated with hepatocyte growth factor (HGF). In particular, the patent application describes compositions and methods which employ a combination of monoclonal antibodies which bind to HGF and prevent it from binding to its receptor met in a manner that HGF/met signaling is neutralized. The combination of monoclonal antibodies has been shown to be neutralizing in tumor-bearing nude mice.

HGF/met signaling has been most widely studied in settings related to cancer. It has been demonstrated to have a role in metastasis and angiogenesis. In addition to cancer, HGF activity has also been linked, through its role in apoptosis, to Alzheimer's disease and cardiovascular disease.

The application has been published as WO 01/34650 (May 17, 2001). The work has also been published at Cao B, et al PNAS USA 98(13):7443-8 (June 19, 2001) [<http://www.pnas.org/cgi/content/full/98/13/7443>]. The hybridomas which can be used to produce the various monoclonal antibodies have been deposited with the ATCC and are available to licensees. Only U.S. Patent protection has been sought for this technology. There are no foreign counterpart patent applications. This application is available for license only. Licenses for the development of therapeutics may be exclusive or non-exclusive. The principal investigators are no longer at the NIH and are not available for NIH collaborative projects under the CRADA mechanism.

Dated: March 14, 2006.

**Steven M. Ferguson,**

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

[FR Doc. E6-4077 Filed 3-20-06; 8:45 am]

**BILLING CODE 4140-01-P**

## **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

### **National Institutes of Health**

#### **Office of the Director, National Institutes of Health; Notice of Meeting**

Pursuant to section 10(a) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of a meeting of the Office of AIDS Research Advisory Council.

The meeting will be open to the public, 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.

*Name of Committee:* Office of AIDS Research Advisory Council.

*Date:* April 6-7, 2006.

*Time:* 8:30 a.m. to 1 p.m.

*Agenda:* A Report of the Director addressing OAR initiatives. The topic of the meeting will be addressing prevention research priorities, focusing on microbicides research.

*Place:* Fishers Lane Conference Center, 5635 Fishers Lane, Rockville, MD 20852.

*Contact Person:* Christina Brackna, Executive Secretary, Office of Aids Research, Office of the Director, NIH, 2 Center Drive, MSC 0255, Building 2, Room 4W15, Bethesda, MD 20892. (301) 402-3555. [cm53v@nih.gov](mailto:cm53v@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.

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.

Information is also available on the Institute's/Center's home page: [www.nih.gov/od/oar/index.htm](http://www.nih.gov/od/oar/index.htm), where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.14, Intramural Research Training Award; 93.22, Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds; 93.232, Loan Repayment Program for Research Generally; 93.39, Academic Research Enhancement Award; 93.936, NIH Acquired Immunodeficiency Syndrome Research Loan Repayment Program; 93.187, Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds, National Institutes of Health, HHS)

Dated: March 15, 2006.

**Anna Snouffer,**

*Acting Director, Office of Federal Advisory Committee Policy.*

[FR Doc. 06-2728 Filed 3-20-06; 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 meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections