

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.

Zscan4: A Gene Critical for Early Embryonic Development

Description of Technology: Activation of transcription from the embryonic genome, known as zygotic genome activation (ZGA), marks the key switch from maternal to embryonic control of development and establishes gene expression patterns required for continued development of the embryo. Genes expressed during ZGA may be important for assisted reproductive technologies, and in stem cell research and development.

The inventors have identified Zscan4, a gene expressed solely in late 2-cell stage embryos and in embryonic stem cells. Inhibition of Zscan4 expression using siRNA techniques delays progression from the 2-cell stage to the 4-cell stage, and produces blastocysts that fail to implant in the mouse embryo. Thus, Zscan4 plays an essential role in early embryonic development, with potential applications for the development of stem cell therapeutics. The invention discloses methods of promoting blastocyst outgrowth of embryonic stem cells. Also disclosed are Zscan4 expression vectors and methods of identifying a subpopulation of stem cells expressing Zscan4.

Applications: Development of stem cell therapeutics; Assisted reproduction technologies and studies of early embryonic development.

Market: State and federal funding for stem cell research is predicted to reach \$10 billion by 2018.

Development Status: Early stage.

Inventors: Minoru S. Ko *et al.* (NIA).

Publications: Geppino Falco *et al.*

Zscan4: A novel gene expressed exclusively in late 2-cell embryos and embryonic stem cells. *Dev Biol.*, in press.

Patent Status: U.S. Provisional Application No. 60/920,215 filed 26 Mar 2007 (HHS Reference No. E-088-2007/0-US-01).

Licensing Status: Available for exclusive or non-exclusive licensing.

Licensing Contact: Tara L. Kirby, Ph.D.; 301/435-4426; tarak@mail.nih.gov.

Retrovirus Packaging Cell Lines Based on Gibbon Ape Leukemia Virus

Description of Technology: Gene therapy and gene transfer have recently

been recognized as effective therapeutic tools to combat diseases. Accordingly, market demands for vectors and carriers to facilitate such interventions have surged in recent years. Retroviral vectors provide an efficient and safe means of gene transfer to eukaryotic cells. The present invention relates to genetic engineering involving retrovirus packaging cells that produce retroviral vectors. Specifically, the invention involves the expression plasmids encoding the envelope glycoproteins of a family of primate type C retrovirus, namely, the Gibbon Ape leukemia virus (GALV). Recombinant vectors derived from murine leukemia virus (MLV) have been widely used to introduce genes in human gene therapy clinical trials. A key determinant for their use in clinical gene therapy is the availability of packaging cell lines capable of producing large amounts of virus with identical titers. The present invention describes the packaging cell lines that produce MLV-based gene transfer vectors with the envelope from gibbon ape leukemia virus. Retroviral vectors produced are of high titer and have an expanded host range providing a means for gene transfer to a wide range of animal species. The gene transfer vectors produced are non-infectious and there was no evidence of production of helper virus, making these vectors safe. These cell lines are critical for producing large amounts of standardized vector necessary for efficient in vivo and ex vivo gene transfer. Therefore, this invention has a significant commercial application as a tool in the development of diagnostic and therapeutic interventions related to gene transfer and gene therapy.

Inventors: Maribeth V. Eiden (NIMH) *et al.*

Patent Status: U.S. Patent No. 5,470,726 issued 28 Nov 1995 (HHS Reference No. E-201-1991/0-US-02).

Licensing Status: Available for non-exclusive licensing.

Licensing Contact: Tara L. Kirby, Ph.D.; 301/435-4426; tarak@mail.nih.gov.

Collaborative Research Opportunity: The National Institute of Mental Health, Laboratory of Cellular and Molecular Regulation, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the Gibbon Ape leukemia virus (GALV) packaging cell line. Please contact Suzanne Winfield at winfiels@mail.nih.gov for more information.

Dated: June 14, 2007.

Steven M. Ferguson,

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

[FR Doc. E7-12174 Filed 6-22-07; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Center on Minority Health and Health Disparities; 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 Center on Minority Health and Health Disparities Special Emphasis Panel; NCMHD Conference Grant Application.

Date: July 19, 2007.

Time: 8 a.m. to 11 a.m.

Agenda: To review and evaluate grant applications and/or proposals.

Place: National Institutes of Health, Two Democracy Plaza, 6707 Democracy Boulevard, Bethesda, MD 20892, (Virtual Meeting).

Contact Person: Robert Netter, MD, Scientific Review Administrator, National Institute on Minority Health, and Health Disparities, 6707 Democracy Blvd., Suite 800, Bethesda, MD 20892, 301-496-3996.

Dated: June 15, 2007.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 07-3080 Filed 6-22-07; 8:45 am]

BILLING CODE 4140-01-M