DHHS Reference No. E–328–01/0 filed Dec 20, 2001
Licensing Contact: Peter Soukas; 301/496–7056 ext. 268; e-mail: *soukasp@od.nih.gov*

This invention relates to the field of angiogenesis, more specifically to the use of CpG oligonucleotides to promote angiogenesis. Angiogenesis, the process of developing a hemovascular network, is essential for the growth of solid tumors and is a component of normal wound healing and growth processes. It has also been implicated in the pathophysiology of atherogenesis, arthritis, corneal neovascularization, and diabetic retinopathy. Angiogenesis factors play an important role in wound healing and likely play a role in the development of malignancies; hence, it would clearly be advantageous to identify new angiogenic agents.

CpG oligodeoxynucleotides (ODNs) express a wide range of biological activities. They are potent vaccine adjuvants, anti-allergens, and trigger a protective innate immune response. Several recent reports indicate that CpG ODN also stimulate cells of the central nervous system. Although CpG ODN have many potential uses, their potential to induce angiogenesis has not been previously recognized. The inventors have shown that bioactive CpG motifs induce dose-dependent neovascularization in the corneas of mice. The invention claims methods for stimulating angiogenesis using CpG ODNs, methods for inducing the production of VEGF (Vascular Endothelial Growth Factor) using CpG ODN, and a model system for screening potential anti-angiogenic agents.

Vaccine for Protection Against Shigella sonnei Disease

Dennis J. Kopecko, De-Qi Xu, John O. Cisar (FDA)
DHHS Reference No. E–210–01/0 filed Jan 16, 2002
Licensing Contact: Peter Soukas; 301/496–7056 ext. 268; e-mail: *soukasp@od.nih.gov*

Shigellosis is a global human health problem. Transmission usually occurs by contaminated food and water or through person-to-person contact. The bacterium is highly infectious by the oral route, and ingestion of as few as 10 organisms can cause an infection in volunteers. An estimated 200 million people worldwide suffer from shigellosis, with more than 650,000 associated deaths annually. A recent CDC estimate indicates the occurrence of over 440,000 annual shigellosis cases in the United States alone, approximately eighty percent (80%) of which are caused by *Shigella sonnei. Shigella sonnei* is more active in developed countries. *Shigella* infections are typically treated with a course of antibiotics. However, due to the emergence of multidrug resistant *Shigella* strains, a safe and effective vaccine is highly desirable. No vaccines against *Shigella* infection currently exist. Immunity to *Shigellae* is mediated largely by immune responses directed against the serotype specific O-polysaccharide. Claimed in the invention are compositions and methods for inducing an immunoprotective response against *S. sonnei.* Specifically, an attenuated bacteria capable of expressing an *S. sonnei antigen* comprised of the *S. sonnei* form I O-polysaccharide expressed from the *S. sonnei* rfb/rfc gene cluster is claimed. The inventors have shown that the claimed vaccine compositions showed one hundred percent (100 %) protection against parenteral challenge with virulent *S. sonnei* in mice.

Method for Determining Sensitivity to a Bacteriophage

Carl R. Merril (NIMH), Sankar Adhya (NCI), Dean M. Scholl (NIMH)
DHHS Reference No. E–318–00/0 filed Jan 22, 2002
Licensing Contact: Peter Soukas; 301/496–7056, ext. 268; e-mail: *soukasp@od.nih.gov*

Traditionally, chemical antibiotics have been used to treat a variety of bacterial infections. However, bacterial resistance to current antibiotics is an increasingly serious problem in human and veterinary health as well as agriculture. Many experts believe that strains of disease-causing bacteria resistant to all common antibiotics will arise in the next ten to twenty years. Bacteriophages offer a promising therapeutic alternative to antibiotics for these antibiotic resistant bacteria. There are also situations in which bacteriophage may be more suitable than antibiotics to treat infections caused by against antibiotic-sensitive bacteria. Bacteriophages are highly host-specific, thus determining whether a phage would be therapeutically useful against a particular bacterium or strain of bacteria is very important but can be a time-consuming and labor-intensive process.

The current invention claims a method for selecting a therapeutic bacteriophage that would be effective against a particular disease-causing bacteria, comprising a number of bacteriophages containing reporter nucleic acids capable of being expressed when the bacteriophage infects a bacterial cell. These bacteriophages are separately contacted with a sample contaminated by a bacterium. Expression of the reporter is then detected, indicating which bacteriophage has infected a bacterial cell and is thus a potential therapeutic phage against the particular bacteria. Also claimed in the application are kits allowing for the rapid identification of potentially therapeutic bacteriophages.

Dated: March 5, 2002.

Jack Spiegel,

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

[FR Doc. 02–5934 Filed 3–12–02; 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, HHS.

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 contacting Kai Chen, Ph.D., M.B.A., at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804; telephone: 301/496–7057 ext. 247; fax: 301/402–0220; e-mail: *ChenK@od.nih.gov.* A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

Antiproliferative Actions of Human IGF Binding Protein-3 Mutants That Do Not Bind IGF–I or IGF–II

M.M. Rechler (NIDDK)

[DHHS Reference No. E–048–02/0 filed 17 Dec 2001]

Recent epidemiological studies indicate that increased serum insulin-like growth factor binding protein-3 (IGFBP–3) is associated with decreased

risk of prostate, breast, lung and colorectal cancers, and childhood leukemia. IGFBP–3 can inhibit cell growth and stimulate death through formation of complexes with IGF–I and IGF–II that prevent activation of the IGF–I receptor to stimulate proliferation and survival.

The current invention embodies a novel mechanism of action for IGFBP–3: direct inhibition of cell growth and stimulation of cell death through a mechanism that is independent of IGF–I, IGF–II and the IGF–I receptor. In the current invention, human IGFBP–3 has been genetically modified so that its affinity for IGF-I and IGF-II is greatly reduced, and it can act only through this novel direct mechanism. These human IGFBP–3 mutants still can inhibit DNA synthesis and stimulate apoptosis, and have been shown to induce apoptosis in human prostate cancer cells. The current invention could selectively exert antiproliferative action without interfering with IGF actions, and may have therapeutic uses as an antitumor agent.

A Novel DNA Methyltransferase Assay System With High Throughput/ Automation Potential

K. Robertson, T. Yokochi (NCI)

[DHHS Reference No. E–030–02/0 filed 14 Jan 2002]

It is now believed that unregulated cell growth is due to aberrant gene expression in cells caused by deletion, mutation, or silencing of one or more critical growth regulatory proteins. The latter method, gene silencing, is mediated by DNA methylation, or the addition of methyl groups to cytosine residues at critical gene expression control regions.

The current invention embodies a novel and highly sensitive assay for detecting DNA methyltransferase activity, which catalyzes the addition of methyl groups to DNA. Treatment with DNA methyltransferase inhibitors in a clinical setting might lead to expression of silenced gene(s) and restoration of controlled cell growth. Huge numbers of compounds must be screened to identify ones that are active against DNA methyltransferases. The assay embodied in the current invention represents the first such assay adaptable for high-throughput and/or automated screening of potential DNA methyltransferase inhibitors. This assay also is fast, easy, reproducible, and highly sensitive.

Generation and Use of Tc1 and Tc2 Cells

D. Fowler (NCI), U. Jung (NCI), J. Medin (NINDS), R. Gress (NCI), A. Erdmann (NCI), B. Levine, and C. June

[U.S. Provisional Patent Application 60/ 336,473 filed 31 Oct 2001]

Allogeneic stem cell transplantation represents a potentially curative treatment option for patients with both hematologic and solid cancers, and for patients with other non-malignant conditions. However, the clinical application of allogeneic stem cell transplantation is limited by T cell immune reactions.

The current invention embodies a method for enrichment of donor T cells of Tc1 and Tc2 phenotypes by in vitro culture. This method represents a significant advance in terms of T cell numbers produced, level of cytokine polarization, and efficacy of in vivo effects. In murine transplantation models, this method greatly reduces graft-versus-host disease (GVHD) associated with donor CD8 cell administration. Murine Tc2 cells generated by this method are particularly potent in abrogating graft rejection by a mechanism that does not involve GVHD. In addition, this method can generate Tc1 and Tc2 cells that mediate graft-versus-tumor (GVT) effects against murine breast cancer and murine leukemia. The Tc1 and Tc2 cells produced by this method are also amenable to insertion of a suicide gene, which represents a potential strategy for mediating potent allogeneic GVT effects, with subsequent reversal of T cell mediated GVHD. Allogeneic transplantation using Tc1 and Tc2 cells generated via this method may therefore represent an approach to increase the anti-tumor efficacy and reduce the GVHD-toxicity of allogeneic stem cell transplantation, and to extend allogeneic transplantation to those patients lacking an HLA-matched sibling.

Dated: March 7, 2002.

Jack Spiegel,

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

[FR Doc. 02–6062 Filed 3–12–02; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meetings

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 meetings 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: Center for Scientific Review Special Emphasis Panel.

Date: March 7, 2002.[1]

Time: 9:00 AM to 5:00 PM.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn, 5520 Wisconsin Avenue, Chevy Chase, MD 20815.

Contact Person: Joseph Kimm, PHD, Scientific Review Administrator, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5178 MSC 7844, Bethesda, MD 20892. (301) 435–1249.

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.

Name of Committee: Center for Scientific Review Special Emphasis Panel.

Date: March 7, 2002.

Time: 1:00 PM to 2:00 PM.

Agenda: To review and evaluate grant applications.

Place: NIH, Rockledge 2, Bethesda, MD 20892. (Telephone Conference Call).

Contact Person: Betty Hayden, PHD, Scientific Review Administrator, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4206, MSC 7812, Bethesda, MD 20892. (301) 435–1223. *haydenb@csr.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. 93.306, Comparative Medicine, 93.306; 93.333, Clinical Research, 93.333. 93.337, 93.393–93.396, 93.837–93.844, 93–846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

[1] **Editorial Note:** This document was received at the Office of the Federal Register on March 8, 2002.