

DNA sequence of NAG-1, 2) compositions containing the NAG-1 sequence and 3) methods for treating cancer patients using NAG-1.

**Novel MHC Class II Restricted T Cell Epitopes from the Cancer Antigen, NY-ESO-1**

DHHS Reference No. E-090-00/0 filed 28 Jan 2000 and

**MHC Class II Restricted CD4+ T Cell Epitopes From NY-ESO-1 Presented by DP**

DHHS Reference No. E-227-00/0 filed 29 Sep 2000

Wang et al. (NCI)

Licensing Contact: Elaine White; 301/496-7056 ext. 282; e-mail: [gesee@od.nih.gov](mailto:gesee@od.nih.gov)

NY-ESO-1 is a known tumor antigen which is expressed on a broad range of tumor types, including melanoma, breast, bladder, ovarian, prostate, head and neck cancers, neuroblastoma, and small cell lung cancer. The above-referenced inventions embody the identification of a number of novel immunogenic peptide epitopes, and analogs thereof, which are derived from the NY-ESO-1 tumor antigen.

DHHS Reference No. E-090-00/0 serves to identify novel MHC Class II restricted epitopes of NY-ESO-1 which are recognized by CD4+ T cells. DHHS Reference No. E-227-00/0 embodies the identification of two additional immunogenic peptide epitopes of NY-ESO-1. The latter two epitopes are presented by HLA-DP4, a prevalent MHC Class II allele present in 43-70% of Caucasians. The inventors also determined that the DP allele is highly associated with the NY-ESO-1 antibody production. In addition, one of these epitopes has dual HLA A2 and DP4 specificity, thereby has the potential to generate both CD4+ and CD8+ tumor specific T cells. These epitopes may be of great value as prophylactic and/or therapeutic cancer vaccines for use against a number of common cancers.

**T-Cell Epitope of MAGE-12 and Related Nucleic Acids, Vectors, Cells, Compositions, and Methods of Inducing an Immune Response to Cancer**

Monica Panelli, Francesco Marincola, Maria Bettinotti (NCI)

DHHS Reference No. E-056-00/0 filed 03 Mar 2000

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The current invention embodies the identification of a T-cell epitope from the cancer-specific antigen MAGE-12. The MAGE family of genes encodes human tumor specific antigens (TSA),

and various genes of this family are expressed by tumors of different histologies (melanoma, lung, colon, breast, laryngeal cancer, sarcomas, certain leukemias) and not by normal cells (except testis and placenta). The MAGE-12 peptide which is the subject of the current invention is a specific epitope within MAGE-12 (residues 170-178) which is recognized by tumor infiltrating lymphocytes in the context of HLA-Cw0702 (a common HLA type in the Caucasian population). This T-cell epitope is advantageous in that it represents a novel tumor rejection antigen for use as a peptide vaccine against melanoma or other cancer types expressing MAGE-12 and may therefore be of great value for use in cancer immunotherapy.

**Secreted Frizzled Related Protein, sFRP, Fragments and Methods of Use Thereof**

JS Rubin, A Uren (both of NCI), and F Reichsman, S Cumberledge

Serial No. 09/546,043 filed 10 April 00

Licensing Contact: Susan S. Rucker; 301/496-7056 ext 245; e-mail: [ruckers@od.nih.gov](mailto:ruckers@od.nih.gov)

This application relates to signal transduction pathways and mechanisms. More particularly, the application describes various active fragments of the secreted Wnt binding protein sFRP-1 (secreted Frizzled Related Protein-1). The sFRP-1 fragments described are capable of binding to Wnt and therefore are able to modulate Wnt activity. The fragments may or may not contain the cysteine rich domain (CRD) of sFRP-1 suggesting that the CRD is not essential for Wnt binding. In addition, in contrast to earlier findings employing higher levels of sFRP-1, the ability of sFRP-1 to enhance Wnt signaling at low levels is also described suggesting biphasic regulation of Wnt signaling by sFRP-1. The sFRP-1 fragments described herein may be useful in the further study of Wnt signaling as well as targets for the development of small molecules which can modulate Wnt signaling. PHS also owns additional intellectual property related to sFRP-1 which is described in US Patent Application Serial Number 09/087,031 and which has been published as WO 98/54325 (12/03/1998).

This work has appeared, in part, in Uren, A et al. JBC 275(6): 4374-4382 (Feb 11, 2000).

Dated: November 22, 2000.

**Jack Spiegel,**

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

[FR Doc. 00-30714 Filed 12-1-00; 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 invention listed below is owned by an agency of the U.S. Government and is 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.

**ADDRESSES:** Licensing information and a copy of the U.S. patent application referenced below may be obtained by contacting J. R. Dixon, Ph.D., at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852-3804 (telephone 301/496-7056 ext 206; fax 301/402-0220; e-mail: [jd212g@nih.gov](mailto:jd212g@nih.gov)). A signed Confidential Disclosure Agreement is required to receive a copy of any patent application.

*Entitled:* "Discovery of Gene Expressed in Many Cancers and Only Normal Testis"

*Inventors:* Drs. Ira H. Pastan (NCI), Xiu F. Liu (NCI), Byungkook Lee (NCI) and Lee J. Helman (NCI).

DHHS Ref. No. E-161-00/0 Filed: September 1, 2000.

Large numbers of expressed sequence tags (EST's) have been cloned from various normal and cancer tissues. Cancer-testis antigens are a distinct class of differentiation antigens that have a restricted pattern of expression in normal tissues. These genes are primarily expressed in the primitive germ cells, spermatogonia, in the normal testis. Malignant transformation is often associated with activation or derepression of silent Cancer-testis genes, and this results in the expression of Cancer-testis antigen in a variable proportion of a wide range of human tumors. Three related genes, termed XAGEs, were recently identified by homology walking using the dbEST database.

The XAGE-1 gene is a human X-linked gene that is strongly expressed in

normal testis, Ewing's sarcoma, alveolar rhabdomyosarcoma, as well as breast cancer and other cancers (e.g., lung carcinoma, prostate adenocarcinoma, ovarian carcinoma, pancreatic adenocarcinoma, glioblastoma, etc.). The largest open reading frame of the XAGE-1 transcript encodes a putative protein of 16.3 kD (p16) with a potential transmembrane domain at the amino terminus. In addition, the XAGE-1 transcript contains a second ATG in the reading frame corresponding to residue 66, which would encode a 9 kD protein (p9). In vitro transfection experiments using 293T cells have revealed a 9 kD protein. However, the size of the protein expressed endogenously is not yet known. XAGE-1 shares homology with GAGE/PAGE proteins in the C-terminal end.

The invention relates to the fact that the XAGE-1 gene is expressed in a number of human cancers, specifically: prostate, pancreatic, and ovarian cancers, as well as a large percentage of breast and lung tumors. The protein p9 and p16, immunogenic fragments thereof, analogs of these proteins, and nucleic acids encoding these proteins, fragments, or analogs, can be administered to persons with XAGE-1 expressing cancers to raise or augment an immune response to the cancer. The invention further provides nucleic acid sequences encoding the protein, as well as expression vectors, host cells, and antibodies to the proteins. Further, the invention provides immunoconjugates that comprise an antibody to p16 or to p9, and an effector molecule, such as a label, a radioisotope, or a toxin. The invention also provides methods of inhibiting the growth of XAGE-1 expressing cells by contacting them with immunoconjugates of an anti-p9 or p16 antibody and a toxic moiety. The invention also provides kits for the detection of p9 or p16 proteins in a sample. The XAGE-1 gene and encoded protein could be of value in the development of a cancer diagnostic and cancer immunotherapy.

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

Dated: November 22, 2000.

**Jack Spiegel,**

*Director, Division of Technology Development & Transfer, Office of Technology Transfer.*

[FR Doc. 00-30716 Filed 12-1-00; 8:45 am]

**BILLING CODE 4140-01-P**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**National Institutes of Health**

**National Heart, Lung, and Blood 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 Heart, Lung, and Blood Institute Special Emphasis Panel.  
*Date:* December 1, 2000.

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

*Agenda:* To review and evaluate grant applications.

*Place:* Bethesda Holiday Inn, Bethesda, MD 20017.

*Contact Person:* Eric H Brown, Scientific Review Administrator, Review Branch, Room 7204, Division of Extramural Affairs, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD 20892.

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. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: November 22, 2000.

**LaVerne Y. Stringfield,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. 00-30711 Filed 11-1-00; 8:45 am]

**BILLING CODE 4140-01-M**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**National Institutes of Health**

**National Institute of Diabetes and Digestive and Kidney Diseases; 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:* National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel, ZDK1 GRB-B(J3)M.

*Date:* December 4, 2000.

*Time:* 12:30 p.m. to 2:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* 2 Democracy Plaza, 6707 Democracy Blvd, Rm 645, Bethesda, MD 20892, (Telephone Conference Call).

*Contact Person:* Ned Feder, Scientific Review Administrator, Review Branch, DEA NIDDK, Room 645, 6707 Democracy Boulevard, National Institutes of Health, Bethesda, MD 20892, (301) 594-8890.

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:* National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel, ZDK1 GRB-B(J2)S.

*Date:* December 15, 2000.

*Time:* 3 p.m. to 5 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* 2 Democracy Plaza, 6707 Democracy Blvd, Rm 645, Bethesda, MD 20892, (Telephone Conference Call).

*Contact Person:* Ned Feder, Scientific Review Administrator, Review Branch, DEA, NIDDK, Room 645, 6707 Democracy Boulevard, National Institutes of Health, Bethesda, MD 20892, (301) 594-8890.

(Catalogue of Federal Domestic Assistance Program Nos. 93.847, Diabetes, Endocrinology and Metabolic Research; 93.848, Digestive Diseases and Nutrition Research; 93.849, Kidney Diseases, Urology and Hematology Research, National Institutes of Health, HHS)

Dated: November 27, 2000.

**Anna Snouffer,**

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

[FR Doc. 00-30708 Filed 12-1-00; 8:45 am]

**BILLING CODE 4410-01-M**