Peptide Inhibitors of Fibronectin and Related Collagen-Binding Proteins

Description of Technology: Fibronectin has been implicated in a variety of cell contact processes, including cell attachment and migration. Fibronectin interacts with collagen through its gelatin-binding domain and this interaction is fundamental to the organization of extracellular matrices and the behavior of these cells on substrates. Fibronectin is essential for the attachment and migration of many cells, including various tumor and cancer cells.

The issued patents disclose peptide compositions having binding affinity for fibronectin, as well as methods for binding fibronectin with a fibronectin-binding peptide and methods for inhibiting fibronectin-mediated cell adhesion. The peptides disclosed are derived from the extracellular matrix protein thrombospondin, which is a modular adhesive glycoprotein that binds to the gelatin binding domain of fibronectin. These peptides are strong inhibitors of fibronectin-mediated cell adhesion. As such, they may be applicable to a variety of indications including cancer, wound healing, and connective tissue diseases.

Applications:

1. Potential therapeutic use for applications such as cancer, wound healing, and connective tissue disease.

2. Research tools for study of cell adhesion and migration processes.

Inventors: David D. Roberts *et al.* (NCI)

Related Publications:

1. JM Sipes, N Guo, E Nègre, T Vogel, HC Krutzsch, DD Roberts. Inhibition of fibronectin binding and fibronectin-mediated cell adhesion to collagen by a peptide from the second type I repeat of thrombospondin. J Cell Biol. 1993 Apr;121(2):469–477.

2. S Schultz-Cherry, H Chen, DF Mosher, TM Misenheimer, HC Krutzsch, DD Roberts, JE Murphy-Ullrich. Regulation of TGFbeta activity by peptides from the type I repeats of thrombospondin-1. J Biol Chem. 1995 Mar 31;270(13):7304–7310.

3. C Daniel, J Wiede, Y Takabatake, M Mizui, Y Isaka, E Imai, H Rupprecht, E Schulze-Lohoff, HC Krutzsch, SMF Ribeiro, DD Roberts, JE Murphy-Ullrich, C Hugo. Thrombospondin-1 is a major activator of TGFbeta in fibrotic renal disease in the rat in *vivo*. Kidney Int. 2004 Feb;65(2):459–468.

Patent Status:

1. U.S. Patent No. 5,491,130 issued 13 Feb 1996 (HHS Reference No. E–219–1992/0–US–01).

2. U.S. Patent No. 5,849,701 issued 15 Dec 1998 (HHS Reference No. E–219–1992/0–US–10).

3. Foreign counterparts issued in Australia, Great Britain, France, Germany, and Japan.

Related Technologies:

1. Heparin- and Sulfatide-Binding Peptides From the Type I Repeats of Human Thrombospondin.

a. U.S. Patent No. 5,357,041 issued 18 Oct 1994 (HHS Reference No. E–198–1991/0–US–01);

b. U.S. Patent No. 5,770,563 issued 23 Jun 1998 (HHS Reference No. E–198–1991/2–US–01);

c. U.S. Patent No. 6,051,549 issued 18 Apr 2000 (HHS Reference No. E–198–1991/2–US–03); and

d. foreign counterparts.

2. Compositions for Stimulating TGF Activity.

a. U.S. Patent No. 6,384,189 issued 07 May 2003 (HHS Reference No. E–019–1994/1–US–02)

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

Licensing Contact: Tara Kirby, PhD; 301/435–4426; *tarak@mail.nih.gov*.

Collaborative Research Opportunity: The National Cancer Institute, Laboratory of Pathology, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize these peptides. Please contact John D. Hewes, Ph.D. at (301) 435–3121 or *hewesj@mail.nih.gov* for more information.

Dated: April 27, 2007.

Steven M. Ferguson,

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

[FR Doc. E7–8500 Filed 5–3–07; 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 meeting of the President's Cancer Panel.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(9)(b), Title 5 U.S.C., as amended, because the premature disclosure of information and the discussions would likely to significantly frustrate implementation of recommendations.

Name of Committee: President's Cancer Panel.

Date: May 24, 2007.

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

Agenda: The Panel will review the final draft of 2006/2007 Annual Report to the President.

Place: National Cancer Institute, National Institutes of Health, Building 6116, Room 212, 6116 Executive Boulevard, Bethesda, MD 20892, (Telephone Conference Call).

Contact Person: Abby Sandler, PhD, Executive Secretary, Chief, Institute Review Office, Office of the Director, National Cancer Institute, National Institutes of Health, Building 6116, Room 212, MSC 8349, 6116 Executive Boulevard, Bethesda, MD 20892–8349, 301/451–9399, *sandlera@mail.nih.gov.*

Information is also available on the Institute's/Center's home page: *deainfo.nci.nih.gov/advisory/pcp/pcp.htm,* where an agenda and any additional information for the meeting will be posted when available.

(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 26, 2007.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 07–2190 Filed 5–3–07; 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 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 Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel, NIDDK Diabetes Centers Applications.