

cell migration, maturation, and a production of a wide variety of cytokines. Based on these potent chemotactic and activating effects on dendritic cells, EDN might be useful as a clinical immunoadjuvant for the promotion of immune responses to specific antigens of tumors or pathogenic organisms.

Protein Kinase C Inhibitor, Related Composition, and Method of Use

Shaomeng Wang, Peter Blumberg (NCI), Nancy Lewin (NCI).

U.S. Provisional Patent Application No. 60/451,214 filed 28 Feb 2003 (DHHS Reference No. E-073-2003/0-US-01).

Licensing Contact: Brenda Hefti; 301/435-4632; heftib@mail.nih.gov.

Protein kinase C is a critical component in cellular signaling, involved in cellular growth, differentiation, and apoptosis. It has been identified as a promising therapeutic target for cancer, diabetic retinopathy, and Alzheimer's disease, among other indications.

This invention relates to lead compounds that can inhibit protein kinase C isoforms through disruption of their C1 domains. The inventors also found that these compounds possess isoform selectivity, an important feature for therapeutic specificity. Finally, although the disclosed compounds are previously known molecules, novel structures are described in the invention that have further improved specificity.

Applications for the HMGN1 Pathway

Michael Bustin (NCI).

U.S. Provisional Patent Application No. 60/455,728 filed 17 Mar 2003 (DHHS Reference No. E-208-2002/0-US-01).

Licensing Contact: Brenda Hefti; 301/435-4632; heftib@mail.nih.gov.

HMGN1 is a protein that binds to nucleosomes, changes chromatin structure and affects transcription, and the expression of this protein changes during differentiation. Mice lacking this protein have increased growth capacity of several skin components, including epidermis, epidermal appendages, and dermis. Conceivably, this change could be related to an alteration of stem cell differentiation or to cell cycling events. The current invention relates to interference with this pathway, which might lead to increased stem cell differentiation and increased hair cycling and growth in humans as well. This invention might be useful to increase hair growth, enhance wound healing for epidermal and dermal wounds, and enhance stem cell populations for tissue regeneration, gene targeting, or gene therapeutic indications.

Novel Stable Anti-CD22 Antibodies

Susanna Rybak, Juergen Krauss, Michaela Arndt (NCI).

U.S. Provisional Application No. 60/387,306 filed 06 Jun 2002 (DHHS Reference No. E-055-2002/0-US-01); PCT Patent Application PCT/US03/18201 filed 06 Jun 2003 (DHHS Reference No. E-055-2002/0-PCT-02).

Licensing Contact: Brenda Hefti; 301/435-4632; heftib@mail.nih.gov.

The current invention relates to engineered LL2 single chain antibodies possessing improved and/or unexpected properties. The first embodiment includes engineered single chain antibodies that have enhanced stability. Specific VH and VL residues were identified which might contribute to the instability, and these were substituted to create scFv variants with improved stability and biological half-life. In the second embodiment, an LL2 single chain Fv antibody was engineered with no linker between the VH and VL sequences. The antibody exhibited the surprising property of acting as a monomer (rather than a trimer or tetramer) and retained specific binding to CD22. This invention might be useful as a general method to produce therapeutic antibodies or immunoconjugates more easily, and for such antibodies or immunoconjugates to be more stable *in vivo*.

Dated: October 30, 2003.

Steven M. Ferguson,

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

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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. 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 application 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 application.

Isolation of Hybridomas Producing Monoclonal Antibodies (MAbs) Inhibitory to Human CYP2J2

Dr. Darryl Zeldin (NIEHS), Dr. Harry Gelboin (NCI), *et al.*

DHHS Reference No. E-337-2003/0—Research Tool.

Licensing Contact: Marlene Shinn-Astor; 301/435-4426; shinnm@mail.nih.gov.

Cytochromes P450 catalyze the NADPH-dependent oxidation of arachidonic acid to various eicosanoids found in several species. The eicosanoids are biosynthesized in numerous tissues including pancreas, intestine, kidney, heart, and lung where they are involved in many different biological activities.

The NIH announces three specific monoclonal antibodies that strongly inhibit and/or immunoblot the human cytochrome P450 2J2 (CYP2J2). MAb 6-5-20-8 selectively inhibits CYP2J2-mediated arachidonic acid metabolism by more than 80% and also immunoblots the enzyme. MAb 6-2-16-1 also selectively inhibits arachidonic acid metabolism by more than 80%, but does not immunoblot the enzyme. MAb 5-3-2-2 is not inhibitory, but selectively immunoblots the enzyme. These antibodies can be used to identify and quantify inter-individual variation in physiological functions and to study pharmacological drug metabolism in various tissues.

This research is also described in: Sun *et al.*, *Circ. Res.* 90: 1020-1027, 2002; King *et al.*, *Mol. Pharmacol.* 61: 840-852, 2002; Yang *et al.*, *Mol. Pharmacol.* 60: 310-320, 2001; Zeldin, *J. Biol. Chem.* 276: 36059-36062, 2001; Node *et al.*, *J. Biol. Chem.* 276: 15983-15989, 2001; Node *et al.*, *Science* 285: 1276-1279, 1999; Wu *et al.*, *J. Biol. Chem.* 271: 3460-3468.

TNF- α Converting Enzyme Inhibitory Agents and Stimulatory Agents

Dr. Stewart Levine *et al.* (NHLBI).

U.S. Provisional Patent Application filed 24 Sep 2003 (DHHS Reference No. E-208-2003/0-US-01).

Licensing Contact: Marlene Shinn-Astor; 301/435-4426; shinnm@mail.nih.gov.