Pyrimidine Phosphorylase as a Target for Imaging and Therapy

RW Klecker and JM Collins (FDA)


(PCT/US2001/01216)

Licensing Contact: Brenda Hefti; 301/435–4632; heftib@od.nih.gov

The present invention describes methods to diagnose and monitor the treatment of tumors with high expression of thymidine phosphorylase (TP). Overexpression of TP has been shown to correlate with angiogenesis, and this fact can be used, via TP’s enzyme function, to preferentially label angiogenic cells through the introduction of relevant precursors. These precursors consist of labeled thymine analogues which are converted by TP into retained cell-components. This can allow for the non-invasive imaging of tumors with high angiogenic activity. The technique can also be used to kill tumor cells by providing these analogues in higher concentrations or with therapeutic isotopes so as to be toxic to cells with high TP levels.


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

[FR Doc. 02–32349 Filed 12–23–02; 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, DHHS.

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.

ADDRESS: Licensing information and copies of the U.S. patent applications 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 applications.

Tryptophan as a Functional Replacement for ADP-ribose-arginine in Recombinant Proteins

Dr. Joel Moss et al. (NHLBI), DHHS Reference No. E–160–2002/0–US–01 filed 28 Jun 2002; Licensing Contact: Marlene Shinn; 301/435–4426; shinnm@od.nih.gov

Bacterial toxins such as cholera toxin and diphtheria toxin catalyze the ADP-ribosylation of important cellular target proteins in their human hosts, thereby, as in the case of cholera toxin, irreversibly activating adenylate cyclase. In this reaction, the toxin transfers the ADP-ribose moiety of Nicotinamide-adenine Dinucleotide (NAD) to an acceptor amino acid in a protein or peptide. ADP-ribosylation leads to a protein/protein with altered biochemical or pharmacological properties. Mammalian proteins catalyze reactions similar to the bacterial toxins. The ADP-ribosylated proteins represent useful pharmacological agents, however, their use is limited by the inherent instability of the ADP-ribose-protein linkage.

The NIH announces a new technology wherein recombinant proteins are created that substitute phenylalanine or tryptophan for an arginine, thereby making the protein more stable, and better suited as agents for therapeutic purposes. The modification creates an effect similar to ADP-ribosylation of the arginine. An example of a protein that can be modified is the defensin molecule, which is a broad-spectrum antimicrobial that acts against infectious agents and plays an important role in the innate immune defense in vertebrates.

Identification of Anti-HIV Compounds Inhibiting Virus Assembly and Binding of Nucleocapsid Protein to Nucleic Acid


This invention identified potent inhibitors of HIV particle assembly and nucleocapsid/nucleic acid binding. Two series of active antiviral compounds are described in this invention. One series...
comprises aromatic, antimony-containing compounds while the other
an aromatic tricarboxylic acid. Both
series have been shown to exhibit anti-
HIV viral activity by inhibiting viral
particle assembly and by inhibiting the
binding of the nucleocapsid protein to
nucleic acid and protecting susceptible
human cells from the cytopathic effect
of HIV. Compounds in both classes
show potent activity in mechanistic
assays and cell-based antiviral assays
and are quite non-toxic in vitro. Thus,
these compounds, or derivatives, may
be useful in treatment of AIDS patients.

Apparatus and Method for In Vitro
Recording and Stimulation of Cells

David Ide (NIMH), George Mentis
(NINDS), DHHS Reference No. E–068–
2002 filed 05 Jul 2002, Licensing
Contact: Dale Berkley; 301/435–5019;
berkleyd@od.nih.gov.

The invention is an apparatus that
allows in vitro recording and
stimulation of neuronal tissue using
electrode techniques. This system enables the
experimenter to combine commercially
available motorized micromanipulators
(used to position electrodes for
intracellular recordings) with newly
designed miniature micromanipulators
to perform simultaneously extracellular
recordings and/or stimulations. The
apparatus consists of a circular plexiglas
in vitro chamber, an aluminum base that
allows adjustment to securely
positioned preparations at various
rotated positions during the course of the
experiment (without having to re-
position the preparation), and a set of
several (maximum ten) miniaturized
micromanipulators, allowing four-
dimensional control. The positioning of
the electrodes for extracellular
recordings/stimulation is done
manually without any motor control.
The miniature micromanipulators can
also be used to position multi-barrel
electrodes for local application of
pharmaceutical agents as well as for
different purposes (mini temperature
probe, pH probe, outlet or inlet tubing
evt). This is a unique system that
permits a practical, versatile
physiological setup for
simultaneous extracellular and
intracellular recordings. The apparatus
is fully documented and ready for
transfer from the laboratory to the
commercial environment.

Case Spiegel,
Director, Division of Technology Development
and Transfer, Office of Technology Transfer,
National Institutes of Health.
[FR Doc. 02–32235 Filed 12–23–02; 8:45 am]
BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND
HUMAN SERVICES

National Center for Complementary
and Alternative Medicine; Notice of
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 National Advisory
Council for Complementary and
Alternative Medicine (NACCAM).
The meeting will be open to the
public as indicated below, with
attendance limited to space available.
Individuals who plan to attend and
need special assistance, such as sign
language interpretation or other
reasonable accommodations, should
notify the Contact Person listed below
in advance of the 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/or contract proposals and the
discussion could disclose confidential
trade secrets or commercial property
such as patentable material, and
personal information concerning
individuals associated with the grant
applications and/or contract proposals,
the disclosure of which would
constitute a clearly unwarranted
invasion of personal privacy.

Name of Committee: National
Advisory Council for Complementary
and Alternative Medicine.
Date: January 27, 2003.
Closed: 8:30 to 11:30 a.m.
Agenda: To review and evaluate grant
applications and/or proposals.
Open: 12:30 to 5:30 p.m.
Agenda: The agenda includes opening
remarks by Director, NCCAM, concept
reviews: Dietary Supplements Resource
Center; Health Services Research;
Probiotics, and Clinical Research.
Presentations: Cancer CAM Working
Group; General Principals for
Collaboration with NCI; Patient Focus
Groups on Cancer and CAM and other
business of the Council.
Place: Neuroscience Conference
Center, 6001 Executive Boulevard,
Conference Rooms C and D, Rockville,
MD 20852.

Contact Person: Jane F. Kinsel, Ph.D.,
Executive Secretary, National Center for
Complementary and Alternative
Medicine, National Institutes of Health,
6707 Democracy Blvd., Suite 401,
Bethesda, MD 20892, (301) 496–6701.
The public comments session is
scheduled from 5–5:30 p.m. Each
speaker will be permitted 5 minutes for
their presentation. Interested
individuals and representatives of
organizations are requested to notify Dr.
Jane Kinsel, National Center for
Complementary and Alternative
Medicine, NIH, 6707 Democracy
Boulevard, Suite 401, Bethesda,
Maryland, 20892, 301–496–6701, Fax:
301–480–0087 or via email
NCCAMES@mail.nih.gov. Letters of
intention to present comments, along with
a brief description of the organization
represented, should be received no later
than 5 p.m. on January 17, 2003. Only
one representative of an organization
may present oral comments. Any person
attending the meeting who does not
request an opportunity to speak in
advance of the meeting may be
considered for oral presentation, if time
permits, and at the discretion of the
Chairperson. In addition, written
comments may be submitted to Dr. Jane
Kinsel at the address listed above up to
10 calendar days (February 6, 2003)
following the meeting.

Copies of the meeting agenda and the
roster of members will be furnished
upon request by Dr. Jane Kinsel,
Executive Secretary, NACCAM,
National Institutes of Health, 6707
Democracy Boulevard, Suite 401,
Bethesda, Maryland 20892, 301–496–
6701, Fax 301–480–0087, or via email
NCCAMES@mail.nih.gov. This
information will be posted two weeks
prior to the meeting on the NCCAM
website at NCCAM.nih.gov.

Dated: December 17, 2002.
LaVerne Y. Stringfield,
Director, Office of Federal Advisory
Committee Policy, NIH
[FR Doc. 02–32360 Filed 12–23–02; 8:45 am]
BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND
HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood
Institute; Notice of 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 a meeting of the
National Heart, Lung, and Blood
Advisory Council.

Dated: December 24, 2002.