

the current Oka vaccine strain that it is markedly impaired for establishing latency. This virus may be a safer vaccine than the currently available vaccine.

Recombinant of Respiratory Syncytial Virus (RSV) Expressing Green and/or Red Fluorescent Protein

Mark Peeples (Rush Presbyterian-St. Luke's Medical Center) and Peter Collins (NIAID)

DHHS Reference No. E-038-2002/0 (Research Materials)

Licensing Contact: Susan Ano; 301/435-5515; anos@od.nih.gov.

The biological materials RSV expressing green and/or red fluorescent proteins are available for licensing as research tools for antiviral drug screening or for studying infection and replication of the virus in real time in cultured cells. RSV is the most important viral respiratory pathogen in infants and thus is a major target for development of antiviral agents. The fluorescent protein markers allow rapid quantification of the extent of virus infection and are easily used in conjunction with common apparatuses such as 96-well plates and fluorescence plate readers.

These viruses are produced by the reverse genetic system as described in U.S. patent 6,264,957 (issued July 24, 2001) to Dr. Peter Collins of the NIAID. This reverse genetic system is also available for licensing (DHHS Ref. E-187-1995/1), including all of the plasmids necessary to make the recombinant viruses.

This research has been described, in part, in Hallak et al., *Virology* 271:264-275, 2000; Zhang et al., *J. Virol.* 76:5654-5666, 2002; Techaarpornkul et al., *Virology* 294:296-304, 2002.

HIV-1 Reverse Transcriptase Expression Systems

Dr. Stephen Hughes et al. (NCI)

DHHS Reference No. E-034-91/0

Licensing Contact: Sally Hu; 301/435-5606; hus@od.nih.gov.

This invention describes a series of HIV-1 reverse transcriptase (RT)-based products:

(a) HIV-1 RT (66 kDa) and HIV-2 RT (68 kDa) expression plasmids. These lead to the production of homodimeric forms of these proteins.

(b) Inducible expression plasmid p66his-prot producing large amounts of HIV-1 RT (p66) and small amounts of HIV-1 protease. This leads to the production of a p66/p51 heterodimeric form of the protein. A version of this plasmid is available with 6x his tail on p66 to simplify purification of the

heterodimer. Expression plasmids for wild-type RT and for numerous mutated RT, including most of the common drug resistant mutants, are available. Mutated RT forms: AZT-21; HIV-2 (His); L74V; P236L; L100I; K103N; V106A; E138K; V181I; M184V; Y188L.

(c) HIV-1 RT with a substitution C280S and a double mutant C38V/C280S that are less susceptible to oxidation than the wild-type enzyme. These mutant HIV-1 RTs have enzymatic properties that are similar to wild-type HIV-1 RT.

Those RT expression plasmids might be used both in biological and medical research such as to study various properties of the enzyme, to determine which domains of the enzyme are the most promising for directing anti-RT reagents against, and to screen RT inhibitors *in vitro*. The HIV-1 Reverse Transcriptase Expression plasmids subject of this report are available for licensing via biological material licenses (BML).

Dated: March 11, 2003.

Steven M. Ferguson,

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

[FR Doc. 03-6442 Filed 3-17-03; 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.

ADDRESSES: 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.

IL-21 Critically Regulates Immunoglobulin Production

Warren J. Leonard, Katsutoshi Ozaki, and Rosanne Spolski (NHLBI)

U.S. Provisional Patent Application 60/393,215 filed 01 Jul 2002

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

The invention includes a mouse in which the IL-21 receptor gene is disrupted by homologous recombination, the disruption being sufficient to prevent expression of the IL-21 receptor and thus to inhibit the action of IL-21. The invention also includes a mouse in which both the IL-21 receptor gene and the IL-4 gene are simultaneously disrupted in fashions being sufficient to inhibit the action of IL-21 and the production of IL-4. In a homozygous state, these mutations produce a mouse that has diminished B cell function.

This invention also relates to the use of agents that inhibit the interaction of IL-21 with the IL-21 receptor to modulate an immune response. This invention may be used to alter B cell activity, to treat a subject with Job's disorder, to treat an allergic reaction in a subject, or prevent an allergic reaction in a subject.

Grafting of a Murine Antibody Onto a Human Framework

S. Rybak, J. Krauss, M. Arndt, and A. Martin (NCI)

U.S. Provisional Patent Application 60/390,033 filed 17 June 2002

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

This invention relates to humanization of antibodies specifically providing novel biophysically stable human framework sequences that can be used to humanize antibody single chain Fv (scFv) fragments. An exemplary RFB4 humanized scFv antibody was constructed using the new sequences. The novel sequences were obtained after stringent panning of a human phage display library on (irrelevant) antigen. These antibody variable domain frameworks were subsequently used as human acceptor scaffolds for grafting the murine antibody specificity. The general approach described here differs from other humanization procedures wherein appropriate human acceptor scaffolds are selected from either antibodies with solved crystal structures or (germline) sequence databases. In the current invention, human acceptor frameworks were first pre-selected for