

Applications: (1) Significant enhancement of immunological responses to antigen vaccines; (2) Development of safe and effective vaccines for cancer and various infectious diseases; (3) Cost effective vaccine to test the combination of immune enhancing molecules with any form of antigen vaccine.

Development Status: Preclinical data is available at this time.

Inventors: Samir Khleif and Jay Berzofsky (NCI).

Patent Status: U.S. Patent Application No. 09/810,310 filed 14 Mar 2001 (HHS Reference No. E-128-2000/0-US-02).

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

Licensing Contact: Cristina Thalhammer-Reyero, Ph.D., M.B.A.; 301/435-4507; thalamc@mail.nih.gov.

Collaborative Research Opportunity: The National Cancer Institute Vaccine Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize methods and compositions for the production of highly effective vaccines. Please contact Betty Tong, Ph.D., at 301-594-4263 or tongb@mail.nih.gov for more information.

Dated: August 25, 2006.

Steven M. Ferguson,

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

[FR Doc. 06-7329 Filed 8-30-06; 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, HHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by an agency 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.

The Mucus Slurper: A Novel Device to Keep the Endotracheal Tube (ETT) Free of all Mucus, Without Suctioning.

Description of Technology: Available for licensing and commercial development is a mucus slurping device to remove all mucus, before mucus reaches the tip of the endotracheal tube (ETT); thus, no mucus ever enters the ETT, and the ETT remains always clean—without suctioning. A Mallinckrodt Hi-Lo® CASS (continuous aspiration of subglottic secretions) endotracheal tube is modified by appending to the distal-most tip of a cut-off CASS tube a molded, hollow, concentric plastic ring with 3-4 (or more) small (less than 1 mm in diameter) suction ports, the latter positioned in the most dependent part of the ETT (Figure 1). The CASS line was extended to the very tip of the ETT, and suction was activated for approximately 0.5 s, synchronized to the early part of expiration; and repeated once a minute, or as desired. All mucus was collected in a small in-line vial. Healthy, anesthetized and paralyzed sheep, were intubated with a modified 8 mm CASS ETT tube with attached "Mucus Slurper"; with sheep lying prone, trachea/neck oriented below horizontal. Never suctioned. At the end of the 72 h study, sheep were electively euthanized, and autopsied.

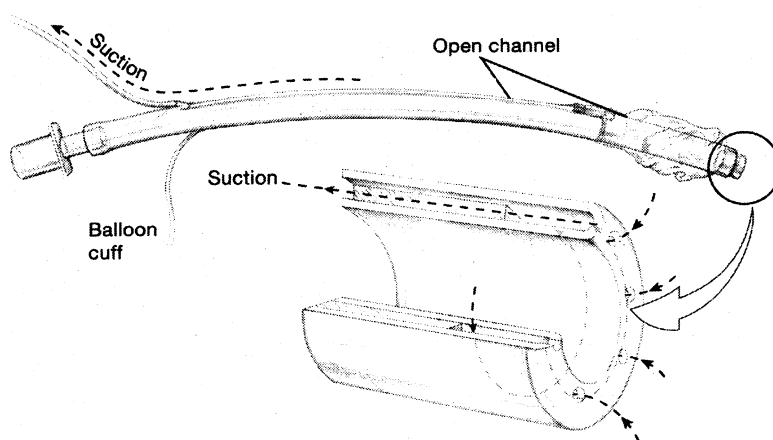


Figure 1. Normal arterial blood gases. No traces of mucus were found along the entire length of the ETT. There were no gross abnormalities of the tracheal mucosa; Bacterial cultures of the 5 lobes of the lungs were negative. The Mucus Slurper represents a new concept that

may significantly contribute to improved care of patients intubated and mechanically ventilated; with no need for suctioning/cleaning, and free of ventilator associated pneumonia.

Applications: (1) Prevention of ventilator associated pneumonia; (2) Intubation; (3) Mucus clearance.

Market: All patients intubated for longer than 18 hours.

Development Status: Pre-clinical data available from sheep.

Inventors: Theodor Kolobow, Gianluigi Li Bassi, Francesco Curto (NHLBI).

Publications:

1. L Berra et al. Antibacterial-coated tracheal tubes cleaned with the Mucus Shaver: A novel method to retain long-term bactericidal activity of coated tracheal tubes. *Intensive Care Med.* 2006 Jun;32(6):888–893. Epub 2006 Apr 19, doi: 10.1007/s00134-006-0125-6.

2. T Kolobow et al. Novel system for complete removal of secretions within the endotracheal tube: the Mucus Shaver. *Anesthesiology.* 2005 May;102(5):1063–1065.

3. L Berra et al. Evaluation of continuous aspiration of subglottic secretion in an in vivo study. *Crit Care Med.* 2004 Oct;32(10):2071–2078.

4. R Trawogger et al. Intratracheal pulmonary ventilation keeps tracheal tubes clean without impairing mucociliary transport. *Scand J Clin Lab Invest.* 2002;62(5):351–356.

Patent Status: U.S. Patent Application No. 11/081,420 filed 15 Mar 2005 (HHS Reference No. E-074-2005/0-US-01); International Patent Application PCT/US2006/009166 filed 14 Mar 2006 (HHS Reference No. E-074-2005/0-PCT-02).

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

Licensing Contact: Michael A. Shmilovitch, Esq.; 301/435-5019; shmilovm@mail.nih.gov.

Collaborative Research Opportunity: The NHLBI Pulmonary Critical Care Medicine Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the endotracheal tube mucus cleaning device and related laboratory interests. Please contact Marianne Lynch at 301-594-4094 or lynchm@nhlbi.nih.gov for more information.

Mucus Shaving Apparatus for Endotracheal Tubes

Description of Technology: HHS seeks parties interested in manufacturing and commercializing an endotracheal tube cleaning apparatus for insertion into the inside of the endotracheal tube of a patient to shave away mucus deposits. This cleaning apparatus comprises a flexible central tube with an inflatable balloon at its distal end. Affixed to the inflatable balloon are one or more silicone rubber shaving rings, each having a squared leading edge to shave away mucus accumulations implicated in bacterial accumulation. In operation, the un-inflated cleaning apparatus is inserted into the endotracheal tube until its distal end is properly aligned with the distal end of the endotracheal tube. After proper alignment, the balloon is inflated by a suitable inflation device (e.g., a syringe) until the balloon's shaving rings are pressed against the

inside surface of the endotracheal tube. The cleaning apparatus is then pulled out of the endotracheal tube and in the process the balloon's shaving rings shave off the mucus deposits from the inside of the endotracheal tube.

Inventors: Theodor Kolobow and Lorenzo Berra (NHLBI).

Publication: T Kolobow et al. Novel system for complete removal of secretions within the endotracheal tube: the Mucus Shaver. *Anesthesiology.* 2005 May;102(5):1063–1065.

Patent Status: U.S. Patent No. 7,051,737 issued 05 Feb 2004 (HHS Reference No. E-061-2004/0-US-01).

Related Technology: PCT Application No. PCT/US2005/003395 filed 04 Feb 2005, which published as WO 2005/076895 on 25 Aug 2005 (HHS Reference No. E-061-2004/1-PCT-01).

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

Licensing Contact: Michael Shmilovitch, Esq.; 301/435-5019; shmilovm@mail.nih.gov.

Collaborative Research Opportunity: The NHLBI Pulmonary Critical Care Medicine Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the endotracheal tube apparatus and related laboratory interests. Please contact Marianne Lynch at 301-594-4094 or lynchm@nhlbi.nih.gov for more information.

Dated: August 25, 2006.

Steven M. Ferguson,

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

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Molecules for Studying Cellular Immune Responses to Vaccines and Therapeutics

Description of Technology: HLA molecules are indispensable and invaluable tools for efficient vaccine research and development. Infectious diseases are the second leading cause of death among adults and the most prominent cause of death in infants and children worldwide. Thus, rapid availability of prophylactic vaccines for cancers and infectious diseases such as HIV, HPV, influenza and diarrheal and respiratory diseases is a world-wide health concern.

Available for licensing is a large variety of cell lines, each expressing a particular HLA molecule and the plasmids encoding them, including soluble HLAs. This technology has broad application for development of vaccines and immunotherapeutics. HLA molecules can be used to characterize HLA-peptide binding and elucidate the process of both antigen and tumor cell peptide-processing and presentation. In addition to wild-type HLA molecules, available for licensing are HLAs containing point-mutations in the peptide binding regions. The mutated HLAs can be used to evaluate key peptide interactions. Additionally, soluble HLA molecules are useful for elucidating the structural details of HLAs and HLA-peptide complexes through crystallographic studies, which can be used to aid in vaccine design. Thus, the present technology has the potential to lend insight into immune recognition and identification of immunogenic epitopes for the systematic design of peptide and protein subunit vaccines for cancers and infectious diseases. Furthermore, this technology has application in the development of therapies for autoimmune and related immunological diseases, including those associated with organ transplantation.

Applications: (1) Identification/Quantification of T cell responses to specific antigens including vaccine antigens; (2) Identification of T cell