



INVESTOR IN PEOPLE

Application No: GB 0318315.9
Claims searched: 1-4

Examiner: Dr William Thomson
Date of search: 3 December 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-4	INTERNET: "Surface treatment of SARS-infected lungs", Zhen-Man Lin, 20 th May 2003, www.ycec.com/Surface-Treatment-of-SARS-e200503.htm See whole document, in particular the abstract
X	1-4	WPI Abstract Accession No 2002-721810/78 & RU 2187984 (G UCHREZH DENIE MEZHOTRASLEVOJTEKH N KOMPLEKS MIKROKHIRURGIJA) 27/08/2002 See abstract
A		INTERNET: "SARS and Ozone Therapy: Theoretical Considerations", G.V. Sunnen, May 2003, www.triroc.com/sunnen/topics/sars.html See whole document, in particular the abstract and page 7, lines 9-26
A		EP 1208851A3 (ALLIANCE PHARMACEUTICAL CORPORATION) See whole document, in particular page 3, lines 42-45 and page 5, line 18 - page 7, line 30 and claims 1-9

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^v:

A5B

Worldwide search of patent documents classified in the following areas of the IPC⁷:

A61K; A61P

The following online and other databases have been used in the preparation of this search report:

BIOSIS, CAS-ONLINE, EPODOC, INTERNET, JAPIO, MEDLINE, TXTE & WPI

Surface Treatment of SARS-Infected Lungs

Document of search 1.

In the "Background of the invention"

of invention specifications. Inventor was recognized.

HK Zhen-man Lin May. 20, 2003

this DOCUMENT publicized for WHO meeting on May. 20, 2003

I ABSTRACT

SARS infection to wreak havoc in China, Hong Kong and Taiwan are combine vibration entire international society, the death rate is high and medical circle of Chinese and Western were feels quite helpless for this. Come for more than hundred years, infect disease on medical science for lung to classify in internal organs disease always only. However in today, this paper will point out that opinion for medical science is misunderstanding, Because must come to define with air for an interface, so SARS infection is a kind of surface ulcerous infection.

Since have got change from above-mentioned that opinion for medical science, We had find a most good of medical scheme. The SARS infector to be discharged from hospital after some hours by "wash the lung" will is not dream! The SARS infection do not threatens life of people's again, mankind hence declare to defeat SARA!

"Surface Treatment of SARS-Infected Lungs" was under the brand-new medical concept of the outcome, the "OI Therapy" is the core of the Surface Treatment. The sterilizing liquid injected into lung lobes is the surface treatment liquid for OI therapy of the lungs. The formal name for this liquid is Per fluoro chemicals (PFC) and the sterilizer is ozone.

II. PREFACE

About the functions of the lungs.

The lungs mainly serve to redistribute the blood from the right ventricle via the lung artery to various lung sub-arteries and capillary vessels in the alveoli, thus achieving gas exchange introducing oxygen and releasing carbon dioxide. Then the blood returns from the lung veins to the left atrium and mixed at a certain proportion in the right ventricle. That is the big circulation of oxygen-containing blood in the arteries providing energy for the body! (Fig. 1.)

Here the medium for gas exchange is not special, just like pumping the air to the bottom of a fish jar to produce bubbles and the oxygen enters the water by rubbing against the external spherical surfaces of the rising bubbles. Our alveoli work like the bubbles in the fish jar and have a large surface area for air contact. The contact area of the dense alveolus tissues in the lungs is up to 70 m²! Tiny blood vessels are spread over the surfaces of these tissues to complete "gas exchange" or, in other words, pulmonary ventilation, via distribution through the blood, interstitial layer and cells. That is the basic idea of the lungs according to modern medicine.

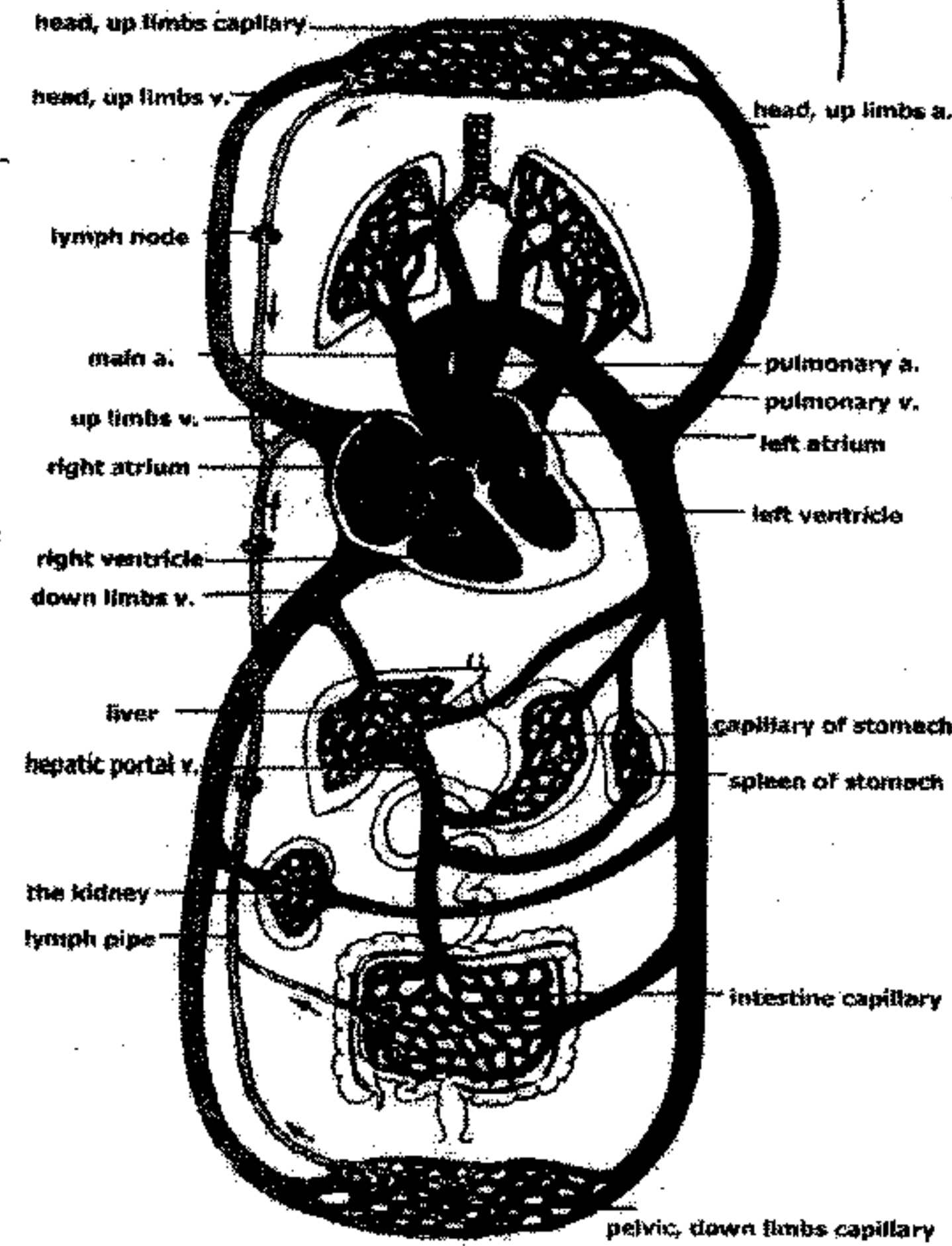


Fig. 1.

On the medical history, Lung diseases have been numerous. Tuberculosis used to be an infectious disease hard to cure

<http://www.ycec.com/Surface-Treatment-of-SARS-e200503.htm>

GB Examiner Dr William
Search in Inventor's website on

What the Examiner was up to?

Dec. 02, 2003

02/12/2003

This document was search at the Website of inventor on Dec.02, 2003.

GB 031835.9 Search Report.

WPI Abstract Accession No.

RU2187984

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2002-721810/78 & RU 2187984

Document of search 2.

PN - RU2187984 C 20020827

PD - 2002-08-27

PR - RU19990103867 19990226

OPD- 1999-02-26

TI - METHOD FOR TREATING INFLAMMATORY OPHTHALMIC DISEASES

AB - medicine. SUBSTANCE: method involves introducing ozonized perfluororganic substance solution into eye cavity in 0.3-6.0 mg/l concentration in the amount of 2-3 ml. The ozonized solution is removed and substituted with physiological salt solution after exposure. EFFECT: enhanced effectiveness of treatment; prolonged ozone action. 2 cl

IN - MAKAROV K N; BELYJ JU A; SHKVORCHENKO D O; TERESHCHENKO A V

PA - G UCHREZHDENIE MEZHOTRASLEVOJ; TEKHN KOMPLEKS MIKROKHIRURGIJA

IC - A61F9/00 ; A61K31/02 ; A61P27/02

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TI - Method for treating inflammatory ophthalmic diseases involves use of ozonized perfluororganic solution

PR - RU19990103867 19990226

● - RU2187984 C2 20020827 DW200278 A61F9/00 000pp

PA - (MIKR-R) MIKROKHIRURGIYA GLAZA SCI TECH COMPLEX

IC - A61F9/00 ; A61K31/02 ; A61P27/02

IN - BELYI YU A; MAKAROV K N; SHKVORCHENKO D O; TERESHCHENKO A V

AB - RU2187984 NOVELTY - Introduction of an ozonized perfluororganic solution (2-3 ml, 0.3-0.36 mg/liter) into the eye cavity, and flushing and replacing with physiological salt solution after exposure, is new.

- USE - The method is used in the treatment of inflammatory eye diseases.

- (Dwg.0/0)

OPD- 1999-02-26

AN - 2002-721810 [78]

SARS and Ozone Therapy: Theoretical Considerations

by Gérard V. Sunnen, M.D.

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May 2003

Abstract

SARS (Severe Acute Respiratory Syndrome) is a global disease of significant lethality with an expanding incidence and prevalence base. Of massive public health importance, SARS presents supremely challenging problems in light of its pathogenic capacity and mutational potential. Ozone, because of its special biological properties, has theoretical and practical attributes to make it a viable candidate as a SARS virus inactivator through a variety of physicochemical and immunological mechanisms.

The Family of Coronaviruses

The SARS virus belongs to the viral family *Coronaviridae*, which includes two genera, coronavirus and togovirus, each showing similar replication mechanisms and genomic organization but distinct genome lengths and viral architecture. First identified in the 60's, this family identifies itself by large, enveloped, positive-stranded RNA virions. Their appearance is characteristically distinct, with envelopes endowed with host cell membrane-tropic petal shaped spikes (peplomers). The large, amply spaced peplomers on the virion surface suggests a coronal (crown-like) appearance.

Prior to SARS, *Coronaviridae* were responsible for relatively mild cold-like syndromes in humans corresponding to their predilection for the ciliary epithelium of the trachea, nasal mucosa, and alveolar cells of the lungs. At times they were only rarely implicated in serious respiratory illnesses in frail older adults (Falsey 2002). SARS represents a quantum leap in *Coronaviridae* infectivity by way of its significant lethality. Widely seen in nature, coronaviruses infect a spectrum of animal hosts and are responsible for avian infectious bronchitis, murine hepatitis, and porcine gastroenteritis, among others. Of possible significance to humans is that animal coronaviruses are able to penetrate into the central nervous system.

SARS: Virion architecture and molecular biology

The SARS virion differs from other members of the *Coronaviridae* family in its genomic composition. The other viral structures, however, are similar, including virion architecture, and the fundamental composition of structural and non-structural proteins.


The software for viral replication is the nucleic acid core, a single strand long chain RNA nucleotide. The core is surrounded by the nucleic acid coat or capsid. The capsid is rigid and determines the shape of the virus; it is made of repeating units called capsomeres. The SARS viral nucleocapsid is tubular with a helical symmetry.

The nucleocapsid is surrounded by an envelope which forms the outer layer of the virion and maintains intimate contact with host bodily fluids. As such, it is sensitive to the composition and alterations in its milieu, such as temperature, pH, and ionic balance. The viral envelope is formed at the time of budding, an intricate process in which the nucleocapsid exits the host cell. In order to do this, it fuses with the host cell membrane, appropriating its components to form its own envelope. It is known that the lipid composition of viral membranes reflects the lipid composition through which the particles exit. Viral envelopes are composed of lipid bilayers associated with a union of carbohydrates and proteins, glycoproteins, and lipids and phosphates, phospholipids. Up to 60% of the lipid component of the envelope is composed of phospholipid and the remainder is

GB.0318315.9

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(19)  **Europäisches Patentamt**
European Patent Office
Office européen des brevets



(11) **EP 1 208 851 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
 07.05.2003 Bulletin 2003/19

(51) Int Cl.7: **A61K 45/06, A61M 16/00, A61K 9/00**

(43) Date of publication A2:
 29.05.2002 Bulletin 2002/22

(21) Application number: **02002978.1**

(22) Date of filing: **22.10.1992**

(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE

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(30) Priority: **14.11.1991 US 791996**

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San Diego, California 92121 (US)

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
97113333.5 / 0 808 636
92922843.5 / 0 612 256

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(54) **A medicament for pulmonary drug delivery**

(57) The invention relates to a medicament for pulmonary drug delivery comprising a fluorocarbon liquid in combination with a bioactive agent for delivery to the lung.

Fig. 1

