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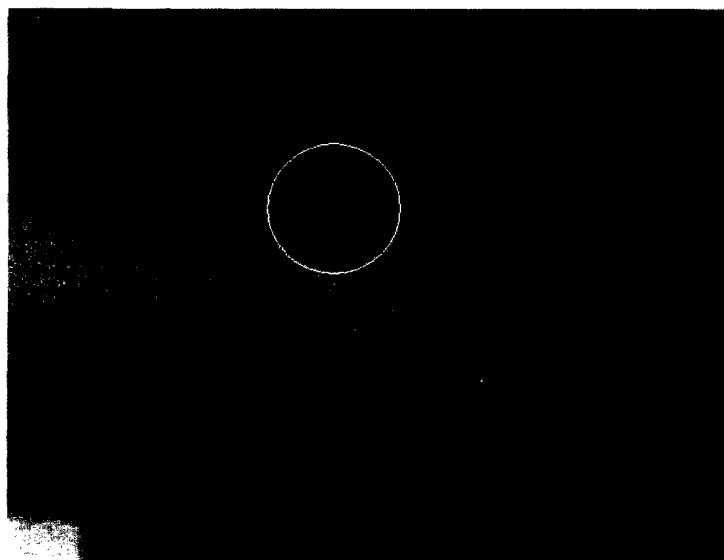
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GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent

[Continued on next page]

(54) Title: FILLER COMPOSITION FOR SOFT TISSUE AUGMENTATION AND RECONSTRUCTIVE SURGERY



(57) Abstract: The present invention relates to a filler composition for soft-tissue augmentation and reconstructive surgery comprising an effective amount of an injectable thermo-gelling solution comprising 0.1 to 5.0 % by weight of chitosan or collagen or a derivative thereof; and 1.0 to 20 % by weight of a salt of polyol or sugar selected from the group consisting of mono-phosphate dibasic salt, mono-sulfate salt and a mono-carboxylic acid salt of polyol or sugar. The solution is stable and turns into a gel within a temperature range from 20 to 70 °C. The gel has a cosmetically acceptable consistency for providing a mechanical support to surrounding soft tissues once injected therein. The composition can thus be used as filler for soft tissue augmentation and reconstructive surgery.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 01/01622

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61L27/20 A61L27/24 A61L27/50 A61L27/52 A61L26/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 07416 A (JALAL FAYROUZ ; SELMANI AMINE (CA); BIO SYNTECH LTD (CA); CHAPUT CY) 18 February 1999 (1999-02-18) claims; examples ---	1-24, 31-43
X	CHENITE A ET AL: "Novel injectable neutral solutions of chitosan form biodegradable gels in situ" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, vol. 21, no. 21, 1 November 2000 (2000-11-01), pages 2155-2161, XP004216030 ISSN: 0142-9612 the whole document --- -/--	1-24, 31-43

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

20 June 2002

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## INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 658 593 A (HUC ALAIN ET AL) 19 August 1997 (1997-08-19) column 4, line 35 - line 36; claims ---	25-43
X	WO 95 25549 A (LIPOMATRIX INC) 28 September 1995 (1995-09-28) claims ---	25-43
X	WO 96 02276 A (GEL SCIENCES INC) 1 February 1996 (1996-02-01) page 59, line 18 - line 20; claims ---	25-43
X	US 4 803 075 A (REIHANIAN HERTSEL ET AL) 7 February 1989 (1989-02-07) claims ---	25-43
P,X	WO 01 41822 A (BIOSYNTECH CANADA INC ;CHAPUT CYRIL (CA); CHENITE ABDELLATIF (CA)) 14 June 2001 (2001-06-14) claims; examples ---	1-24, 31-43
P,X	WO 01 36000 A (SELMANI AMINE ;WANG DONG (CA); CHAPUT CYRIL (CA); BIO SYNTECH CANA) 25 May 2001 (2001-05-25) claims; examples ---	1-24, 31-37
A	US 4 731 081 A (TIFFANY JOHN S ET AL) 15 March 1988 (1988-03-15) column 1, line 53; claims -----	25-43

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA 01/01622

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 35-43 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT  
 information on patent family members

International Application No

PCT/CA 01/01622

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