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(54) Title: FLUIDIC TISSUE AUGMENTATION COMPOSITIONS AND METHODS

(57) Abstract: Compositions and method for augmenting tissue after delivery to localized area. The compositions include a hydrogel and a dermal filler. The hydrogel can polymerize and/or crosslink upon a first trigger event. The dermal filler can also optionally crosslink upon a second trigger event.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/06258

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **A61F 13/00(2006.01);B60C 1/00(2006.01)**

USPC: 524/493;424/422
 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)
 U.S. : 524/493;424/422

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 practicable, search terms used)
 EAST: hydrogel and dermal filler

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0287180 A1 (CHEN) 29 December 2005 (29.12.2005), abstract, claims, pg. 3 [0028, 0031, 0034-0036] and pg. 7 [0120, 0122, 0127-0131], pg 9 [0153]	1-56
E	US 2007/0003584 A1 (ANDERSON) 4 January 2007 (04.01.2007) entire document	1-56
Y	US 2004/0029994 A1 (CHENG et al) 12 February 2004 (12.02.2004), entire document	1-56

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 30 August 2007 (30.08.2007)	Date of mailing of the international search report 26 SEP 2007
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <i>Bethany Banam</i> Bethany Banam Telephone No. 571-272-1600
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/06258

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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:

- 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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

- 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 additional fees, this Authority did not invite payment of any additional fees.
 - 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 and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-10, drawn to a kit comprising a hydrogel and at least one dermal filler.

Group II, claims 11-20, drawn to a method of manufacturing a cosmetic or therapeutic injectable tissue augmentation medicament composition comprising at least one hydrogel and at least one dermal filler.

Group III, claims 20-26, drawn to a method of manufacturing a cosmetic or therapeutic injectable tissue augmentation medicament composition for facial sculpting comprising at least one hydrogel and at least one dermal filler.

Group IV, claims 27-35, drawn to a method of manufacturing a cosmetic or therapeutic injectable tissue augmentation medicament composition for altering the shape of a nose bridge to a predetermined shape comprising at least one hydrogel and at least one dermal filler.

Group V, claims 36-42, drawn to a method of manufacturing a cosmetic or therapeutic injectable tissue augmentation medicament composition comprising at least one hydrogel and a hyaluronic acid moiety.

Group VI, claims 43-56, drawn to an injectable tissue augmentation composition comprising at least a first fluidic biocompatible moiety and at least a second fluidic biocompatible moiety.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I-IV have a special technical feature of "a hydrogel and at least one dermal filler", which is known in the art (US 2005/0287180 A1). While Groups V-VI do not contain the same special technical feature of Groups I-IV.

US 2005/0287180 A1 ('180) teaches a composition that is injectable, non-liposomal and/or in the form of a gel or a paste a composition comprising a phospholipid component and a non-phospholipid filler for repairing or augmenting hard and/or soft tissue (abstract, claim 1). '180 teaches a method of repairing or augmenting hard, soft, or dermal tissue comprising administering the composition according to claim 1, a method of preparing and a kit of claim 1 (claims 12-20). The non-phospholipid filler can be starch, amylose, amylopectin, pectin, alginates, chitin, chitosan, glycogen, hyaluronate, chondroitin, heparin, etc (claims 6-7), which are all taught by applicant to be dermal fillers. '180 also teaches that the gel is a hydrogel or organogel (pg. 3, [0031, 0034-0036]).

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US07/06258