

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 August 2003 (14.08.2003)

PCT

(10) International Publication Number  
**WO 2003/066585 A3**

- (51) International Patent Classification<sup>7</sup>: **A61K 9/50**, 47/32, B01J 13/02
- (21) International Application Number: PCT/US2003/003981
- (22) International Filing Date: 7 February 2003 (07.02.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/355,159 8 February 2002 (08.02.2002) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**  
— with international search report
- (88) Date of publication of the international search report: 11 March 2004
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: POLYMER-BASED COMPOSITIONS FOR SUSTAINED RELEASE

(57) **Abstract:** This invention relates to sustained release compositions, and methods of forming and using said compositions, in particular for the sustained release of Follicle Stimulating Hormone (FSH). The sustained release compositions comprise a polymeric matrix of a biodegradable biocompatible polymer and stabilized FSH. The method of the invention for forming a sustained release composition includes, dissolving a biodegradable biocompatible polymer in a polymer solvent to form a polymer solution; adding biologically active stabilized FSH; removing the solvent; and solidifying the polymer to form a polymer matrix containing stabilized FSH dispersed therein. Also described is a method for providing a therapeutically effective amount of stabilized FSH in a patient in need of for a sustained period comprising administering to the patient a dose of the sustained release compositions of the invention. The sustained release composition of FSH can be used to promote maturation of follicles, promote spermatogenesis and to treat fertility disorders.



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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/03981

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 9/50, 47/32; B01J 13/02  
US CL : 424/ 501, 502; 514/ 772.6; 264/ 4.6

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. : 424/ 501, 502; 514/ 772.6; 264/ 4.6

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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P /	US 6,548,302 B1 (MAO et al) 15 April 2003, see column 37, lines 24-67; column 38, lines 1-9; column 49, line 32.	1-132

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search

10 June 2003 (10.06.2003)

Date of mailing of the international search report

15 AUG 2003

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

Commissioner for Patents

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