



(51) International Patent Classification:

A61K 9/16 (2006.01) *A61K 9/00* (2006.01)
A61K 9/50 (2006.01) *C12N 15/11* (2006.01)

(21) International Application Number:

PCT/EP2010/057965

(22) International Filing Date:

8 June 2010 (08.06.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09162257.1 9 June 2009 (09.06.2009) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,

DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

25 August 2011

(54) Title: MICROPARTICLES COMPRISING SIRNA

(57) Abstract: The present invention provides pharmaceutically active formulations in the form of microparticles of defined size comprising siRNA, a highly hydrophobic biodegradable polymer, and a cationic lipid that functions as both an amphipathic emulsifier and siRNA binding entity. Methods for making the microparticles are also provided. The microparticle formulations are especially useful for pulmonary delivery of siRNA and are therefore useful for treating diseases of the lung.



INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2010/057965

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61K9/16 A61K9/50 A61K9/00 C12N15/11
ADD.

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)

A61K C12N

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)

EP0-Internal, WPI Data, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/026453 A (GENTERIC INC [US]; NIEDZINSKI EDMUND J [US]; CHEN YEN-JU [US]; LIU YAD) 1 April 2004 (2004-04-01) paragraph [0075] - paragraph [0083]; claims 1-42; figures 2,3; examples 1,2,8 paragraphs [0126], [0172] -----	1-17
X	TAHARA KOHEI ET AL: "[Development of gene delivery system using PLGA nanospheres]", YAKUGAKU ZASSHI : JOURNAL OF THE PHARMACEUTICAL SOCIETY OF JAPAN OCT 2007, vol. 127, no. 10, October 2007 (2007-10), pages 1541-1548, XP002553274, ISSN: 0031-6903	1-15
Y	abstract; figures 1-11 ----- -/--	16,17

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

☒ See patent family annex.

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Date of the actual completion of the international search

24 June 2011

Date of mailing of the international search report

30/06/2011

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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2010/057965

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	TAKASHIMA ET AL: "Spray-drying preparation of microparticles containing cationic PLGA nanospheres as gene carriers for avoiding aggregation of nanospheres", INTERNATIONAL JOURNAL OF PHARMACEUTICS, ELSEVIER BV, NL, vol. 343, no. 1-2, 30 August 2007 (2007-08-30), pages 262-269, XP022223274, ISSN: 0378-5173 the whole document	16,17
A	----- WO 03/015816 A (DYNAVAX TECH CORP [US]; VAN NEST GARY [US]; TUCK STEPHEN [US]; FEARON) 27 February 2003 (2003-02-27) example 2 -----	1-17

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2010/057965

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			US 2004115254 A1	17-06-2004

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			CA 2456201 A1	27-02-2003
			EP 1414490 A1	06-05-2004
			JP 2005510462 T	21-04-2005
