(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 March 2011 (10.03.2011)

PCT

(10) International Publication Number
WO 2011/026641 A9

(51) International Patent Classification:
A61K 47/48 (2006.01) *A61P 43/00* (2006.01)

(21) International Application Number:
PCT/EP2010/005438

(22) International Filing Date:
3 September 2010 (03.09.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/553, 559 3 September 2009 (03.09.2009) US

(71) Applicant *(for all designated States except US)*: **CURE-VAC GMBH** [DE/DE]; Paul-Ehrlich-Str. 15, 72076 Tübingen (DE).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **BAUMHOF, Patrick** [DE/DE]; Akazienweg 16, 72144 Dusslingen (DE). **SCHLAKE, Thomas** [DE/DE]; Gartenweg 1, 79194 Gundelfingen (DE).

(74) Agents: **GRAF VON STOSCH, Andreas** et al.; Graf von Stosch, Patentanwaltsgesellschaft mbH, Prinzregentenstrasse 22, 80538 München (DE).

(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).

Published:

— *with international search report (Art. 21(3))*

— *with information concerning incorporation by reference of missing parts and/or elements (Rule 20.6)*

(48) Date of publication of this corrected version:
17 November 2011

(15) Information about Correction:
see Notice of 17 November 2011

(54) Title: DISULFIDE-LINKED POLYETHYLENEGLYCOL/PEPTIDE CONJUGATES FOR THE TRANSFECTION OF NUCLEIC ACIDS

(57) Abstract: The present invention is directed to an inventive polymeric carrier molecule according to generic formula (I) and variations thereof, which allows for efficient transfection of nucleic acids into cells *in vivo* and *in vitro*, a polymeric carrier cargo complex formed by a nucleic acid and the inventive polymeric carrier molecule, but also to methods of preparation of this inventive polymeric carrier molecule and of the inventive polymeric carrier cargo complex. The present invention also provides methods of application and use of this inventive polymeric carrier molecule and the inventive polymeric carrier cargo complex as a medicament, for the treatment of various diseases, and in the preparation of a pharmaceutical composition for the treatment of such diseases.

WO 2011/026641 A9