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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 December 2013 (27.12.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/189663 A1

(51) International Patent Classification:
A61K 41/00 (2006.01) *A61P 35/00* (2006.01)
A61K 47/48 (2006.01)

(21) International Application Number:
PCT/EP2013/059968

(22) International Filing Date:
14 May 2013 (14.05.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1208548.6 15 May 2012 (15.05.2012) GB

(71) Applicant: **PCI BIOTECH AS** [NO/NO]; Strandveien 55, N-1366 Lysaker (NO).

(72) Inventors: **BERG, Kristian**; Vollenveien 158 A, N-1389 Heggedal (NO). **HØGSET, Anders**; Rognerudveien 55, N-0681 Oslo (NO). **MÁSSON, Már**; Fjölnisvegi 1, IS-101 Reykjavík (IS). **GAWARE, Vivek S.**; Eggertsgötu 2, IS-101 Reykjavík (IS).

(74) Agent: **JONES, Elizabeth Louise**; Dehns, St Bride's House, 10 Salisbury Square, London Greater London EC4Y 8JD (GB).

(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, BN, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, RS, 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))*

WO 2013/189663 A1

(54) Title: CONJUGATE OF A PHOTOSENSITISER AND CHITOSAN AND USES THEREOF

(57) Abstract: The present invention relates to novel chitosan-based conjugates, e.g. nanocarriers, comprising a derivative of the biocompatible polymer chitosan conjugated to a photosensitising agent, and uses thereof in photochemical internalisation (PCI) and photodynamic therapy (PDT). The invention also relates to the use of the novel conjugates of the invention in treatment or prevention of diseases, particularly cancer, and for vaccination purposes.