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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 April 2006 (20.04.2006)

PCT

(10) International Publication Number
WO 2006/040330 A3

(51) International Patent Classification:
C12N 15/861 (2006.01) *A61K 48/00* (2006.01)

(21) International Application Number:
PCT/EP2005/055183

(22) International Filing Date: 12 October 2005 (12.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

04105005.5	13 October 2004 (13.10.2004)	EP
60/618,469	13 October 2004 (13.10.2004)	US
60/697,724	8 July 2005 (08.07.2005)	US

(71) Applicants *(for all designated States except US)*: **CRUCELL HOLLAND B.V.** [NL/NL]; Archimedesweg 4, NL-2333 CN Leiden (NL). **BETH ISRAEL DEACONESS MEDICAL CENTER INC.** [US/US]; 330 Brookline Avenue, Brookline, Massachusetts 02215 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **HAVENGA, Menzo, Jans, Emco** [NL/NL]; Wilhelmina Druckerstraat 66, NL-2401 KG Alphen aan den Rijn (NL). **BAROUCH, Dan** [US/US]; 2 Saint Paul Street, Unit 107, Brookline, MA 02446 (US).

(74) Agents: **KLEIN, Bart** et al.; Crucell Holland B.V., Archimedesweg 4, NL-2333 CN Leiden (NL).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, 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))*
— *of inventorship (Rule 4.17(iv))*

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
24 August 2006

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: IMPROVED ADENOVIRAL VECTORS AND USES THEREOF

(57) Abstract: The present invention relates to recombinant adenoviral vectors based on adenoviruses that encounter pre-existing immunity in a minority of the human population and which harbour a chimeric capsid. The chimeric capsid comprises fiber proteins that have at least the knob domain of a human adenovirus that binds to the Coxsackievirus and Adenovirus Receptor (CAR) and a hexon protein from an adenovirus serotype that encounters pre-existing immunity in a low percentage of the human population.

WO 2006/040330 A3