

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 May 2001 (17.05.2001)

PCT

(10) International Publication Number
WO 01/34183 A2

- (51) International Patent Classification⁷: A61K 38/48, 39/395, 31/7088, 31/593, 31/203, 38/18, 31/573, 33/14, 33/06, C12Q 1/68, A61P 17/00, 27/00, 25/00
- (74) Common Representative: VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOLOGIE VZW; Rijvisschestraat 120, B-9052 Zwijnaarde (BE).
- (21) International Application Number: PCT/EP00/11251
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (22) International Filing Date:
10 November 2000 (10.11.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
99203752.3 10 November 1999 (10.11.1999) EP
00202776.1 4 August 2000 (04.08.2000) EP
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOLOGIE VZW [BE/BE]; Rijvisschestraat 120, B-9052 Zwijnaarde (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): DECLERCQ, Wim [BE/BE]; Pieter Casierstraat 7, B-8510 Marke (BE). VANDENABEELE, Peter [BE/BE]; Nijverheidsstraat 18, B-9040 Sint-Amandsberg (BE). LIPPENS, Saskia [BE/BE]; Citadellaan 75, B-9000 Gent (BE).
- Published:**
— Without international search report and to be republished upon receipt of that report.
- 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.*



WO 01/34183 A2

(54) Title: USE OF CASPASE-14 AND CASPASE-14 MODULATORS TO DIAGNOSE AND/OR TREAT SKIN, EYE AND BRAIN DISORDERS

(57) Abstract: The present invention is based on the finding that caspase-14 is expressed in epithelial tissue such as the epidermis, the epithelial layer of the choroid plexus and the pigmented retinal layer. The invention relates to the involvement of caspase-14 in keratinocyte differentiation and in a properly functioning blood-brain barrier and blood-eye barrier. The present invention specifically relates to nucleic acids encoding caspase-14, caspase-14 protein and modulators of caspase-14 expression, activation and bioactivity that can be used to diagnose and/or treat keratinocyte differentiation disorders, disturbances in the blood-eye barrier and brain disorders.