Takes the place of EP1575973 (art.158 of the EPC)

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 July 2004 (15.07.2004)

PCT

(10) International Publication Number
WO 2004/058791 A2

(51) International Patent Classification[7]: C07H 19/00

(21) International Application Number: PCT/CZ2003/000078

(22) International Filing Date: 29 December 2003 (29.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PV 2002-4273 30 December 2002 (30.12.2002) CZ

(71) Applicant *(for all designated States except US)*: **USTAV EXPERIMENTALNI BOTANIKY AKADEMIE VED CESKE REPUBLIKY** [CZ/CZ]; Rosvojova 135, 165 02 Praha 6 - Lysolaje (CZ).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **DOLEZAL, Karel** [CZ/CZ]; Vidce 401, 756 53 Vidce (CZ). **POPA, Igor** [CZ/CZ]; Dr. V. Nespora 11, 772 00 Olomouc (CZ). **ZATLOUKAL, Marek** [CZ/CZ]; Revolucní 18a, 787 01 Sumperk (CZ). **LENOBEL, René** [CZ/CZ]; Hlavní nám. 12, 785 01 Stemberk (CZ). **HRADECKÁ, Dana** [CZ/CZ]; Jugoslávskych partyzánu 11, 160 00 Praha 6 (CZ). **VOJTESEK, Borivoj** [CZ/CZ]; Sadová 572, 664 42 Modrice (CZ). **ULDRIJAN, Stjepan** [CZ/CZ]; Letovická 15, 621 00 Brno (CZ). **MLEJNEK, Petr** [CZ/CZ]; Úvoz 63, 602 00 Brno (CZ). **WERBROUCK, Stefaan** [BE/BE]; Beeklaan 34, B-8530 Harelbeke (BE). **STRNAD, Miroslav** [CZ/CZ]; Západní 25, 779 00 Olomouc (CZ).

(74) Agent: **GABRIELOVA, Marta**; Inventia s.r.o., Politickych veznu 7, 110 00 Praha 1 (CZ).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— *of inventorship (Rule 4.17(iv)) for US only*

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 2004/058791 A2

(54) Title: SUBSTITUTION DERIVATIVES OF N^6-BENZYLADENOSINE, METHODS OF THEIR PREPARATION, THEIR USE FOR PREPARATION OF DRUGS, COSMETIC PREPARATIONS AND GROWTH REGULATORS, PHARMACEUTICAL PREPARATIONS, COSMETIC PREPARATIONS AND GROWTH REGULATORS CONTAINING THESE COMPOUNDS

(57) Abstract: The invention concerns novel substitution derivatives of N^6-benzyladenosine having anticancer, mitotic, immunosuppressive and antisenescent properties for plant, animal and human cells. This invention also relates to the methods of preparation of these N^6-benzyladenosine derivatives and their use as drugs, cosmetic preparations and growth regulators comprising these derivatives as active compound and use of these derivatives for preparation of pharmaceutical compositions, in biotechnological processes, in cosmetics and in agriculture.