



- (51) **International Patent Classification:**
C12N 15/861 (2006.01) *A61K 48/00* (2006.01)
C07K 14/47 (2006.01)
- (21) **International Application Number:**
PCT/US2015/054836
- (22) **International Filing Date:**
9 October 2015 (09.10.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
62/061,748 9 October 2014 (09.10.2014) US
- (71) **Applicant:** GENVEC, INC. [US/US]; 910 Clopper Road, Suite 220N, Gaithersburg, Maryland 20878 (US).
- (72) **Inventors:** BROUGH, Douglas E.; 9121 Tulip Grove Road, Gaithersburg, Maryland 20879 (US). ETTYREDDY, Damodar R.; 22480 Castle Oak Road, Clarksburg, Maryland 20871 (US).
- (74) **Agents:** MEJDRICH, Rachel J. et al.; LEYDIG, VOIT & MAYER, LTD., Two Prudential Plaza, Suite 4900, 180 North Stetson Avenue, Chicago, Illinois 60601-6731 (US).

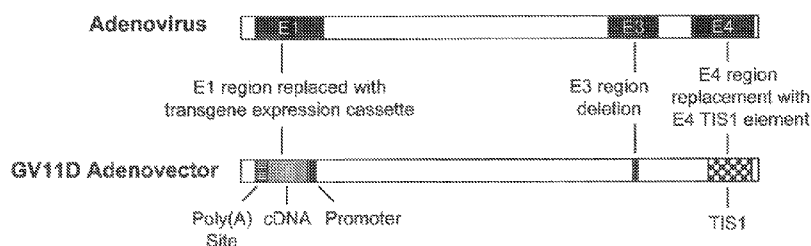
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, 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, SA, 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, ST, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(54) **Title:** ADENOVIRAL VECTOR ENCODING HUMAN ATONAL HOMOLOG-1 (HATH1)

Figure 2



(57) **Abstract:** The invention is directed to a replication-deficient adenoviral vector comprising a nucleic acid sequence encoding a human atonal homolog-1 (Hath1) protein operably linked to a human glial fibrillary acidic protein (GFAP) promoter. The invention also is directed to a composition and method utilizing the adenoviral vector to generate sensory cells in the inner ear of a human.