

Title (en)

GENETIC SEQUENCES ASSOCIATED WITH NEURAL CELL PROLIFERATION AND DISEASE

Title (de)

GENETISCHE SEQUENZEN, WELCHE MIT NEURALER ZELLPROLIFERATION UND ERKRANKUNGEN ASSOZIIERT SIND

Title (fr)

SEQUENCES GENETIQUES ASSOCIEES A LA PROLIFERATION ET AUX PATHOLOGIES DES CELLULES NEURONALES

Publication

**EP 1226280 A4 20031015 (EN)**

Application

**EP 00988496 A 20001025**

Priority

- US 0041515 W 20001025
- US 16133799 P 19991025
- US 22763900 P 20000824

Abstract (en)

[origin: WO0130973A2] Applying large-scale DNA microarray techniques, the developmental molecular programs of the hippocampus, a cortical structure critical for learning and memory has been analyzed. Over 30,000 genes and EST sequences were screened, including an estimated 30-40% of total genes in the mouse genome. As a result, the present invention identifies 4,390 genes that showed dynamic changes during hippocampal development. Moreover, using genecluster analysis, these genes were grouped into 16 distinct clusters with striking patterns that correlate with major developmental hallmarks. The covariance analysis strategy was then applied. This enabled the identification of a group of genes whose expression may underlie the phenotypic changes in the hippocampus.

IPC 1-7

**C12Q 1/68**

IPC 8 full level

**C07K 14/47** (2006.01); **C07K 14/71** (2006.01); **C12Q 1/68** (2006.01)

CPC (source: EP)

**C07K 14/47** (2013.01); **C07K 14/71** (2013.01); **C12Q 1/6886** (2013.01); **C12Q 2600/136** (2013.01)

Citation (search report)

- [Y] WO 9713877 A1 19970417 - LYNX THERAPEUTICS INC [US], et al
- [Y] "ATLASTM HUMAN CDNA EXPRESSION ARRAY I", CLONTECH, CLONTECHNIQUES, April 1997 (1997-04-01), pages 4 - 7, XP002914393
- [Y] TAMAYO P ET AL: "INTERPRETING PATTERNS OF GENE EXPRESSION WITH SELF-ORGANIZING MAPS:METHODS AND APPLICATION TO HEMATOPOIETIC DIFFERENTIATION", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 96, March 1999 (1999-03-01), pages 2907 - 2912, XP000942169, ISSN: 0027-8424
- [Y] CIRELLI CHIARA ET AL: "Differences in brain gene expression between sleep and waking as revealed by mRNA differential display and cDNA microarray technology.", JOURNAL OF SLEEP RESEARCH, vol. 8, no. SUPPL. 1, June 1999 (1999-06-01), pages 44 - 52, XP002237949, ISSN: 0962-1105
- [Y] SCHENA M ET AL: "PARALLEL HUMAN GENOME ANALYSIS: MICROARRAY-BASED EXPRESSION MONITORING OF 1000 GENES", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 93, no. 20, 1 October 1996 (1996-10-01), pages 10614 - 10619, XP002022507, ISSN: 0027-8424
- [Y] TORONEN P ET AL: "Analysis of gene expression data using self-organizing maps", FEBS LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 451, no. 2, 21 May 1999 (1999-05-21), pages 142 - 146, XP004259666, ISSN: 0014-5793
- [Y] EISEN M B ET AL: "CLUSTER ANALYSIS AND DISPLAY OF GENOME-WIDE EXPRESSION PATTERNS", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 95, December 1998 (1998-12-01), pages 14863 - 14868, XP002939285, ISSN: 0027-8424
- [Y] CHEN JEREMY J W ET AL: "Profiling expression patterns and isolating differentially expressed genes by cDNA microarray system with colorimetry detection", GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 51, no. 3, 1 August 1998 (1998-08-01), pages 313 - 324, XP002159705, ISSN: 0888-7543
- [Y] GRAY NATHANAEAL S ET AL: "Exploiting chemical libraries, structure, and genomics in the search for kinase inhibitors.", SCIENCE (WASHINGTON D C), vol. 281, no. 5376, 24 July 1998 (1998-07-24), pages 533 - 538, XP002204861, ISSN: 0036-8075
- [Y] CARULLI JOHN P ET AL: "High throughput analysis of differential gene expression.", JOURNAL OF CELLULAR BIOCHEMISTRY SUPPLEMENT, no. 30-31, 1998, pages 286 - 296, XP002204862, ISSN: 0733-1959
- See references of WO 0130973A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 0130973 A2 20010503**; **WO 0130973 A3 20010920**; AU 2470101 A 20010508; CA 2389834 A1 20010503; EP 1226280 A2 20020731; EP 1226280 A4 20031015

DOCDB simple family (application)

**US 0041515 W 20001025**; AU 2470101 A 20001025; CA 2389834 A 20001025; EP 00988496 A 20001025