PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
C12N 15/09, 5/10, 15/67, 15/85, C07K 14/59, A61K 48/00

A1

(11) International Publication Number: **WO 99/57263**

(43) International Publication Date: 11 November 1999 (11.11.99)

(21) International Application Number: PCT/US99/09795

(22) International Filing Date: 5 May 1999 (05.05.99)

(30) Priority Data:
60/084,663 7 May 1998 (07.05.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application
US 60/084,663 (CON)
Filed on 7 May 1998 (07.05.98)

(71) Applicant *(for all designated States except US)*: TRANSKARYOTIC THERAPIES, INC. [US/US]; 195 Albany Street, Cambridge, MA 02139 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: TRECO, Douglas, A. [US/US]; 87 Brantwood Road, Arlington, MA 02174 (US). HEARTLEIN, Michael, W. [US/US]; 167 Reed Farm Road, Boxborough, MA 01719 (US). SELDEN, Richard, F. [US/US]; 106 Bristol Road, Wellesley, MA 02481 (US).

(74) Agent: FRASER, Janis, K.; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: MODIFYING THE EXPRESSION OF THE FSH BETA GENE BY HOMOLOGOUS RECOMBINATION

(57) Abstract

An isolated nucleic acid molecule that hybridizes under stringent conditions, or shares at least 80 % sequence identity, with a defined genomic region upstream of the coding region of a FSHβ gene, and a DNA construct containing that nucleic acid molecule as a targeting sequence for homologous recombination.