



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

<p><b>(51) International Patent Classification <sup>5</sup> :</b> C12N 15/12, C07K 15/06 A61K 37/02</p>	<p><b>A1</b></p>	<p><b>(11) International Publication Number:</b> <b>WO 93/10233</b></p> <p><b>(43) International Publication Date:</b> 27 May 1993 (27.05.93)</p>
<p><b>(21) International Application Number:</b> PCT/EP92/02586</p> <p><b>(22) International Filing Date:</b> 11 November 1992 (11.11.92)</p> <p><b>(30) Priority data:</b>  PD91A000207      11 November 1991 (11.11.91)    IT  PD92A000087      20 May 1992 (20.05.92)                    IT</p> <p><b>(71) Applicant (for all designated States except US):</b> FIDIA S.P.A. [IT/IT]; Via Ponte della Fabbrica, 3/A, I-35031 Abano Terme (IT).</p> <p><b>(72) Inventors; and</b>  <b>(75) Inventors/Applicants (for US only) :</b> CALLEGARO, Lanfranco [IT/IT]; Via Bravi, 35, I-35020 Ponte di Brenta (IT). NEGRO, Alessandro [IT/IT]; Via Umago, 5, Padova (IT).</p>		<p><b>(74) Agent:</b> VOSSIUS &amp; PARTNER; Siebertstrasse 4, P.O. Box 86 07 67, D-8000 Munich 86 (DE).</p> <p><b>(81) Designated States:</b> AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG).</p> <p><b>Published</b>  <i>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.</i></p>
<p><b>(54) Title:</b> SYNTHESIS AND PURIFICATION OF TRUNCATED AND MUTEIN FORMS OF HUMAN CILIARY NEURONOTROPHIC FACTOR</p>		
<p><b>(57) Abstract</b></p> <p>The present invention relates to truncated and mutein forms of human ciliary neuronotrophic factor, nucleic acid sequences which encode these forms, the amino acid sequences of these forms, methods of producing the same by means of recombinant DNA techniques, pharmaceutical compositions containing these truncated and mutein forms of CNTF, and methods of use thereof.</p>		