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- (74) Agents: **LUZZATTO, Kfir** et al.; Luzzatto & Luzzatto, P.O. Box 5352, 84152 Beer-Sheva (IL).
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132972 16 November 1999 (16.11.1999) IL
- (71) Applicant (*for all designated States except US*): **YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM** [IL/IL]; 46 Jabotinsky Street, P.O. Box 4279, 91042 Jerusalem (IL).
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- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **SOREQ, Hermona** [IL/IL]; 14 HaMaayan Street, 95930 Jerusalem (IL). **SEIDMAN, Shlomo** [IL/IL]; Neve Daniel, 90999 Gush Etzion (IL).
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(54) Title: PHARMACEUTICAL COMPOSITIONS COMPRISING ACETYLCHOLINESTERASE ANTISENSE DEOXYNUCLEOTIDES FOR THE TREATMENT OF MUSCULAR AND NEUROMUSCULAR DISORDERS

(57) Abstract: The present invention relates to a pharmaceutical composition for the treatment and/or prevention of a progressive neuromuscular disorder, and for use in decreasing muscle fatigue, comprising low concentrations of a synthetic antisense oligonucleotide targeted to the common coding domain of acetylcholine esterase (AChE) mRNA. The present invention further relates to a novel method for the diagnosis of progressive neuromuscular disorders.

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INTERNATIONAL SEARCH REPORT

Internal Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K48/00 A61K31/713 C12N15/11

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 26062 A (ECKSTEIN FRITZ ;YISSUM RES DEV CO (IL); FRIEDMAN ALON (IL); SOREQ) 18 June 1998 (1998-06-18) the whole document	1-41,43
X	--- TALMA BRENNER ET AL: "Antisense approach to the anticholinesterase management of myasthenia gravis." JOURNAL OF AUTOIMMUNITY, no. SUPPL., 1999, page 22 XP000986370 2nd International Congress on Autoimmunity;Tel Aviv, Israel; March 7-11, 1999 ISSN: 0896-8411 the whole document --- -/--	1,2, 8-11, 16-19, 36-39,43

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

5 March 2001

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Pilat, D

INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SEIDMAN S. ET AL.: "Antisense technologies have a future fighting neurodegenerative diseases" ANTISENSE & NUCLEIC ACID DRUG DEVELOPMENT, vol. 9, August 1999 (1999-08), pages 333-340, XP000984531 the whole document	1,2,4, 11, 17-19, 30,31, 34,35, 41,43
A	--- WO 93 21202 A (MAX PLANCK GESELLSCHAFT ;ECKSTEIN FRITZ (DE); YISSUM RES DEV CO (I) 28 October 1993 (1993-10-28) the whole document	
A	--- US 5 932 780 A (SHANI MOSHE ET AL) 3 August 1999 (1999-08-03) the whole document -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL 00/00763

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

partially 1,3-10,20-41,43; completely 2,11-19

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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