



(43) International Publication Date
13 December 2012 (13.12.2012)

(10) International Publication Number
WO 2012/170899 A3

(51) International Patent Classification:

A61K 38/48 (2006.01) *C12Q 1/37* (2006.01)
A61P 3/00 (2006.01) *A23L 1/305* (2006.01)
A61P 25/16 (2006.01)

(21) International Application Number:

PCT/US2012/041674

(22) International Filing Date:

8 June 2012 (08.06.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/067,581 10 June 2011 (10.06.2011) US

(71) Applicant (for all designated States except US): **PRO-THERA INC.** [US/US]; 10439 Double R. Blvd., Reno, NV 89521 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **OLMSTEAD, Stephen, F.** [US/US]; 6155 Plumas St., Apt 147, Reno, NV 89519-6005 (US).

(74) Agent: **ANGRES, Isaac, A.**; 2001 Jefferson Davis Highway, Suite 304 B, Arlington, VA 22202 (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, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, 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, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

31 January 2013

(54) Title: PHARMACEUTICAL COMPOSITIONS CONTAINING PROTEASES AND METHODS FOR THE TREATMENT OF LYSOSOMAL STORAGE DISEASES

(57) Abstract: The invention provides a method and compositions for treating a subject with a lysosomal storage disease such as gaucher disease, by administering to a subject with a lysosomal storage disease a therapeutically effective amount of composition comprising at least one of a protease or peptidase in an amount sufficient to ameliorate, reduce or improve at least one symptom of the disease. The invention also provides dietary supplements for subjects having lysosomal storage diseases.



WO 2012/170899 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 2012/041674

A. CLASSIFICATION OF SUBJECT MATTER		<i>A61K 38/48 (2006.01)</i> <i>A61P 3/00 (2006.01)</i> <i>A61P 25/16 (2006.01)</i> <i>C12Q 1/37 (2006.01)</i> <i>A23L 1/305 (2006.01)</i>																				
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)																						
A61K 38/00, 38/43, 38/48, A61P 3/00, 25/00, 25/16, C12Q 1/00, 1/37, A23L 1/00, 1/305																						
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 practicable, search terms used)																						
PatSearch (RUPTO internal), Esp@cenet, PAJ, USPTO																						
C. DOCUMENTS CONSIDERED TO BE RELEVANT																						
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																				
X	US 2010/0183577 A1 (NAFTALI STERN et al.) 22.07.2010, p. 4, par. [0065]-[0067], p. 8, par. [0137], p. 10, par. [0166], p. 11, par. [0172], claims 33, 38, 40, 56	1, 4, 6																				
Y		2-3, 5, 7-21, 25																				
Y	WO 2011/017177 A1 (SHIRE HUMAN GENETIC THERAPIES et al.) 10.02.2011, p. 60, lines 4-22, p. 61, lines 25-31, p. 62, lines 1-18, p. 92, lines 6-9	2-3, 16-21																				
Y	US 2007/0116836 A1 (THE COCA-COLA COMPANY) 24.05.2007, p. 41-42, par. [0876], p. 2, par. [0022]	5, 7-15, 25																				
X	RU 2008134120 A (DZHENZIM CORPORATION) 27.02.2010, p. 3-5	22-24																				
☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.																						
* Special categories of cited documents: <table border="0"> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"E"</td> <td>earlier document but published on or after the international filing date</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"L"</td> <td>document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td>"&"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			"A"	document defining the general state of the art which is not considered to be of particular relevance	"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	"E"	earlier document but published on or after the international filing date	"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	"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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	"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P"	document published prior to the international filing date but later than the priority date claimed		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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																			
"E"	earlier document but published on or after the international filing date	"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																			
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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																			
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family																			
"P"	document published prior to the international filing date but later than the priority date claimed																					
Date of the actual completion of the international search		Date of mailing of the international search report																				
24 October 2012 (24.10.2012)		22 November 2012 (22.11.2012)																				
Name and mailing address of the ISA/ FIPS Russia, 123995, Moscow, G-59, GSP-5, Berezhkovskaya nab., 30-1		Authorized officer M. Prokusheva																				
Facsimile No. +7 (499) 243-33-37		Telephone No. 499-240-25-91																				

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 2012/041674

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Jun Mitsui et al. Mutations for gaucher disease confer high susceptibility to parkinson disease. Arch Neurol. 2009 May; 66(5):571-576, abstract	26-27
Y	WO 2010/025126 A1 (CYSTIC FIBROSIS FOUNDATION THERAPEUTICS, INC. et al.) 04.03.2010, abstract	26-27