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(54) Title: PHARMACEUTICAL ORAL DOSAGE FORM CONTAINING A SYNTHETIC OLIGOSACCHARIDE

(57) Abstract: The present invention concerns a pharmaceutical formulation intended for oral administration containing a synthetic oligosaccharides containing one to 18 monosaccharide units and having a therapeutical activity or a pharmaceutically acceptable additions salt or solvate thereof wherein the formulation contains: a) the synthetic oligosaccharide (A) in an amount of up to 5% by weight of the total weight of the formulation, advantageously up to 1 % by weight of the total weight of the formulation, b) a lipophilic phase (B) consisting of triglyceride of fatty acids in an amount of 50 to 80% by weight of the total weight of the formulation, advantageously of 50 to 70 % by weight of the total weight of the formulation, c) at least one lipophilic surfactant (C) with HLB below 7 consisting of partial esters of polyol and fatty acids in an amount of 10 to 30% by weight of the total weight of the formulation, advantageously of 15 to 30 % by weight of the total weight of the formulation, d) at least one hydrophilic surfactant (D) with HLB above 7 in an amount of up to 20% by weight of the total weight of the formulation, advantageously up to 15% by weight of the total weight of the formulation, e) optionally, at least one hydrophilic solvent (E) in an amount of up to 15% by weight of the total weight of the formulation, advantageously up to 10% by weight of the total weight of the formulation, f) between 0 and 30% by weight of the total weight of the formulation of a chemical and/or physical stabilization agent (F), advantageously between 0 and 20 % by weight of the total weight of the formulation, wherein when the formulation is in a form of a reverse emulsion or microemulsion and contains at least one hydrophilic solvent (E), the physical stabilization agent is present and is silicon dioxide.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

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

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)

EP0-Internal, BIOSIS, CHEM ABS Data, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LYONS KYM C ET AL: "Factors limiting the oral bioavailability of N-acetylglucosaminy-N-acetylmuramyl dipeptide (GMDP) and enhancement of absorption in rats by delivery in a water-in-oil microemulsion", INTERNATIONAL JOURNAL OF PHARMACEUTICS (KIDLINGTON), vol. 199, no. 1, 10 April 2000 (2000-04-10), pages 17-28, XP002583214, ISSN: 0378-5173 abstract the whole document page 18, left-hand column, line 1 - right-hand column, line 13 page 20, left-hand column, last paragraph - right-hand column, last paragraph page 24, right-hand column, last paragraph -/--	1-9,11,12

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

☒ See patent family annex.

* Special categories of cited documents :

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

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

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"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

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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	- page 25, left-hand column, paragraph 1 table 2 figure 5 ----- KIM S K ET AL: "Tricaprylin microemulsion for oral delivery of low molecular weight heparin conjugates", JOURNAL OF CONTROLLED RELEASE, ELSEVIER, AMSTERDAM, NL LNKD- DOI:10.1016/J.JCONREL.2005.03.018, vol. 105, no. 1-2, 20 June 2005 (2005-06-20), pages 32-42, XP004933079, ISSN: 0168-3659 abstract page 33, right-hand column, line 26 - line 36 page 34, right-hand column, line 3 - page 35, left-hand column, line 4 page 36, right-hand column, line 18 - page 40, right-hand column, line 3 figure 3 table 2 -----	1-9,11,12
X	US 2002/032171 A1 (CHEN FENG-JING [US] ET AL) 14 March 2002 (2002-03-14) cited in the application paragraph [0002] paragraph [0006] paragraph [0011] - paragraph [0026] paragraph [0034] paragraph [0036] paragraph [0050] - paragraph [0053] paragraph [0073] - paragraph [0074] paragraph [0122] - paragraph [0123] paragraph [0212] formulations 49-51 in example 7 tables 1,6, 10,12,13,25 claims -----	1-9,11,12
X	US 5 626 869 A (NYQVIST HAAKAN [SE] ET AL) 6 May 1997 (1997-05-06) column 1, line 15 - line 19 column 3, line 1 - line 30 column 3, line 63 - column 4, line 12 column 5, line 15 - line 29 examples 1-8,16 claims 1-15 ----- -/--	1-9,11,12

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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	WO 02/053100 A2 (LIPOCINE INC [US]) 11 July 2002 (2002-07-11) page 1, line 5 - line 11 page 5, line 8 - page 6, line 29 page 13, line 6 - line 10 examples 1-25 page 26, line 19 - page 27, line 12 claims 1-6,9,11-13,20-28,33,39-41,48-50,68-77 -----	1-9,11, 12
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			WO 02053100 A2	11-07-2002
