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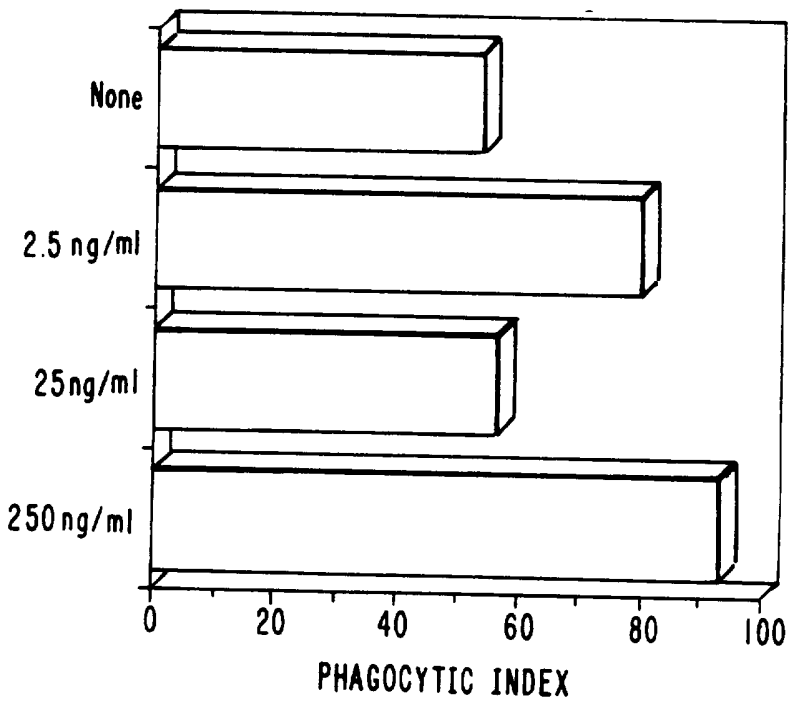
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23 July 1992 (23.07.92)

(54) Title: METHOD FOR INCREASING AND ACTIVATING MONOCYTES AND NEUTROPHILS AND FOR INDUCING MATURATION OF MYELOID CELLS WITH INTERLEUKIN-5



(57) Abstract

Methods for increasing and activating monocytes and neutrophils and for inducing the maturation of myeloïd cells in mammals by adminestering IL-5 are disclosed. A method for making IL-5 is also disclosed.

+ See back of page

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INTERNATIONAL SEARCH REPORT

International Application No PCT/US 91/08264

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)[6]

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl.5 C 12 N 15/24 A 61 K 37/02

II. FIELDS SEARCHED

Minimum Documentation Searched[7]

Classification System	Classification Symbols
Int.Cl.5	A 61 K C 07 K

Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched[8]

III. DOCUMENTS CONSIDERED TO BE RELEVANT[9]

Category °	Citation of Document,[11] with indication, where appropriate, of the relevant passages[12]	Relevant to Claim No.[13]
X	Acta Haematologica Japonica, vol. 53, no. 4, July 1990, Y. YAMAGUCHI et al.: "Analysis of eosinophil-predominant colonies formed by human hemopoietic precursor cells in the presence of purified interleukin-5", pages 688-698, see the whole article, especially pages 695-698, paragraph: "Discussion" ---	1,3-4,6 -8,11
X	WO,A,8806891 (AKTIEBOLAGET ASTRA) 22 September 1988, see the whole document --- -/-	2,5,10

° Special categories of cited documents :[10]

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"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)

"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

"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

IV. CERTIFICATION

Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report
11-05-1992	22. 06. 92
International Searching Authority	**Signature of Authorized Officer**
EUROPEAN PATENT OFFICE	Maria Pels Maria Pels

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
A	Biological Abstracts, vol. 89, no. 7, 1 May 1990, (Philadelphia, PA, US), H. EMA et al.: "In vitro differentiation of leukemic cells to eosinophils in the presence of interleukin-5 in two cases of acute myeloid leukemia with the translocation (8;21Xq22;q22)", see page AB-691, abstract no. 72613, & BLOOD 75(2): 350-356. 1990, see the abstract	1-11
A	The Journal of Biochemistry, vol. 107, no. 2, February 1990, (Tokyo, JP), Y. MINAMITAKE et al.: "Structure of recombinant human interleukin 5 produced by Chinese hamster ovary cells", pages 292-297, see the whole article	1-11
A	EP,A,0267779 (SCHERING BIOTECH CORP.) 18 may 1988, see the whole document (cited in the application)	1-11
A	EP,A,0261625 (T. HONJO) 30 March 1988, see the whole document (cited in the application)	1-12
A	WO,A,8704466 (AMERSHAM INTERNATIONAL PLC) 30 July 1987, see the whole document (cited in the application)	1-11
X,P	WO,A,9113160 (SCHERING CORP.) 5 September 1991, see the whole document	12
X	EP,A,0299782 (SCHERING BIOTECH CORP.) 18 January 1989, see the whole document, especially pages 19-21, example II; page 34, claim 17	12
X	EP,A,0378827 (SCHERING CORP.) 25 July 1990, see the whole document	12

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

V. [X] OBSERVATION WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE [1]

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

1. [ ] Claim numbers because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-3,7-11 are directed to a method of treatment of the human or animal body the search has been carried out and based on the alleged effects of the compound.

2. [ ] Claim numbers 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. [ ] Claim numbers because they are dependent claims and are not drafted in accordance with the second and third sentences of PCT Rule 6.4(a).

VI. [X] OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING [2]

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

1. Claims 1-11
2. Claim 12

For further information please see form PCT/ISA/206 mailed on 12.03.92.

1. [X] As all required additional search fees were timely paid by the applicant, this International search report covers all searchable claims of the International application

2. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the International application for which fees were paid, specifically claims:

3. [ ] 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 claim numbers:

4. [ ] As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

[ ] The additional search fees were accompanied by applicant's protest.

[X] No protest accompanied the payment of additional search fees.

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO. US 9108264

SA 54178

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 12/06/92
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A- 8806891	22-09-88	AU-B- 621046	05-03-92
		AU-A- 1487888	10-10-88
		EP-A- 0305468	08-03-89
		JP-T- 1502592	07-09-89
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