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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : A61K 38/21, 39/39, A61P 29/00, 33/02, 37/04	A3	(11) International Publication Number: WO 00/10595 (43) International Publication Date: 2 March 2000 (02.03.00)
(21) International Application Number: PCT/GB99/02786 (22) International Filing Date: 24 August 1999 (24.08.99) (30) Priority Data: 9818445.0 24 August 1998 (24.08.98) GB (71) Applicant (for all designated States except US): IMPERIAL COLLEGE INNOVATIONS LIMITED [GB/GB]; Sherfield Building, Imperial College, London SW7 2AZ (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): FOSTER, Graham, Russell [GB/GB]; Imperial College School of Medicine, St. Mary's Hospital, Dept. of Medicine, Norfolk Place, London W2 1PG (GB). THOMAS, Howard, Christopher [GB/GB]; Imperial College School of Medicine, St. Mary's Hospital, Dept. of Medicine, Norfolk Place, London W2 1PG (GB). (74) Agents: CHAPMAN, Paul, William et al.; Kilburn & Strode, 20 Red Lion Street, London WC1R 4PJ (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 25 May 2000 (25.05.00)
(54) Title: MEDICAMENTS FOR MANIPULATING T-CELL IMMUNE RESPONSE (57) Abstract The use of IFN α_{21} in the manufacture of medicaments for use in activating Th2 helper cells is provided.		

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 99/02786

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/21 A61K39/39 A61P29/00 A61P33/02 A61P37/04

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

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.
A	FOSTER G R ET AL: "Different relative activities of human cell-derived interferon-alpha subtypes: IFN-alpha 8 has very high antiviral potency." JOURNAL OF INTERFERON AND CYTOKINE RESEARCH, (1996 DEC) 16 (12) 1027-33. , XP000876621 page 1032, column 2, paragraph 1; figure 1	1,5,6
A	WO 98 33517 A (FOSTER GRAHAM RUSSELL ;THOMAS HOWARD CHRISTOPHER (GB); IMPERIAL CO) 6 August 1998 (1998-08-06) cited in the application page 1, line 3 - line 6; claims 1-15 page 2, line 13 -page 4, line 12 --- -/--	1-9

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

☒ Patent family members are listed in annex.

* Special categories of cited documents :

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"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
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"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

17 February 2000

Date of mailing of the international search report

28/02/2000

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/02786

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95 24212 A (IMPERIAL COLLEGE ;FOSTER GRAHAM RUSSELL (GB); THOMAS HOWARD CHRIST) 14 September 1995 (1995-09-14) cited in the application page 2, line 18 -page 3, line 30; claims 1-10	1-9

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 99/ 02786

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:
Remark: Although claims 5 and 6 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
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.:

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

International Application No

PCT/GB 99/02786

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9833517	A	06-08-1998	AU	5871698 A	25-08-1998
WO 9524212	A	14-09-1995	AU	1854695 A	25-09-1995
			EP	0741577 A	13-11-1996
			JP	9509955 T	07-10-1997
			US	6007805 A	28-12-1999