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Patents Form 1977 * Patents Act (Rule 16) Request for grant of a patent (See the notes on the back of this form. You can also 17 9 FEB 2001

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1.	Your reference	4-31671P2	
2.	Patent application number (The Patent Office will fill in this part)	0104072.4	
3.	Full name, address and postcode of the or of each applicant (underline all surnames)	NOVARTIS AG SCHWARZWALDALLEE 215 4058 BASEL SWITZERLAND	
	Patent ADP number (if you know it) If the applicant is a corporate body, give the country/state of its incorporation	07125487602 SWITZERLAND	
4.	Title of invention	Organic Compounds	
5.	Name of your agent (If you have one) "Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)	B.A. YORKE & CO. CHARTERED PATENT AGENTS COOMB HOUSE, 7 ST. JOHN'S ROAD ISLEWORTH MIDDLESEX TW7 6NH	
	Patents ADP number (if you know it)	1800001	
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7.	If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application	Number of earlier application	Date of filing (day/month/year)
8.	Is a statement of inventorship and of right to grant of a patent required in	Yes	
	support of this request? (Answer Yes' if:		
	 a) any applicant named in part 3 is not an inventor, or b) there is an inventor who is not named as 		





(see note (d))

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Continuation sheets of this form

Description 9

Claim(s) 2

Abstract

Drawing(s)

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Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (please specify)

11.

I/We request the grant of a patent on the basis of this application

Signature

Date

B.A. Yorke & Co.

19 February 2001

 Name and daytime telephone number of person to contact in the United Kingdom Mrs. E. Cheetham 020 8560 5847

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Organic Compounds

The present invention relates to a new use, in particular a new use for a compound group comprising derivatives of rapamycin.

Suitable derivatives of rapamycin include e.g. compounds of formula I

wherein

 R_1 is CH_3 or $C_{3\text{-}6}$ alkynyl, $R_2 \text{ is H or -}CH_2\text{-}CH_2\text{-}OH,$ X is =O or (H,OH) provided that $R_2 \text{ is -}CH_2\text{-}CH_2\text{-}OH \text{ when } R_1 \text{ is } CH_3 \text{ and } X \text{ is =}O.$

Most of the compounds of formula I are either generically or specifically disclosed in WO 94/09010, WO 95/16691 or WO 96/41807, which are incorporated herein by reference, the compound of formula I wherein X is =0, R_1 is 2-pentynyl and R_2 is -CH₂-CH₂-OH being novel and forming part of the invention.

A preferred compound is 40-0-(2-hydroxyethyl)-rapamycin (referred thereafter as Compound A), disclosed as Example 8 in WO 94/09010.

Certain compounds of formula I have, on the basis of observed activity, e.g. binding to macrophilin-12 (also known as FK-506 binding protein or FKBP-12), e.g. as described in



WO 94/09010, WO 95/16691 or WO 96/41807, been found to be useful e.g. as immunosuppressant, e.g. in the treatment of acute allograft rejection. It has now been found that Compounds of formula I have potent antiproliferative properties which make them useful for cancer chemotherapy, particularly of solid tumors, especially of advanced solid tumors. There is still the need to expand the armamentarium of cancer treatment of solid tumors, especially in cases where treatment with anticancer compounds is not associated with disease regression or stabilization.

In accordance with the particular findings of the present invention, there is provided:

- 1.1 A method for treating solid tumors in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula I.
- 1.2 A method for inhibiting growth of solid tumors in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula I.
- 1.3 A method for treating solid tumor invasiveness or symptoms associated with such tumor growth in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula I.
- 1.4 A method for preventing metastatic spread of tumours or for preventing or inhibiting growth of micrometastasis in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula 1.
- 1.5 A method for the treatment of a disease associated with deregulated angiogenesis in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula I.
- 1.6 A method for inhibiting or controlling deregulated angiogenesis in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a compound of formula 1.

By "solid tumors" are meant tumors and/or metastasis (whereever located) other than lymphatic cancer, e.g. pancreatic tumors; melanomas; lung cancer, e.g. small cell lung cancer; breast cancer; epidermoid carcinomas; renal-cell carcinomas; neuroendocrine tumors; genitourinary cancer, e.g. cervical, uterine, ovarian, prostate or bladder cancer; gastrointestinal cancer, e.g. gastric or colon cancer; glioblastomas; head and/or neck cancer; soft-tissue sarcomas.



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