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## (54) Use of thiazolidinediones to prevent or delay onset of niddm

(57) A novel method of using thiazolidinedione derivatives and related antihyperglycemic agents to treat populations experiencing impaired glucose tolerance in order to prevent or delay the onset of noninsulin-depend-

ent diabetes mellitus (NIDDM) and complications arising therefrom is disclosed.

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## **EUROPEAN SEARCH REPORT**

Application Number EP 05 02 7984

Category	Citation of document with indicati of relevant passages	on, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Υ	IWAMOTO Y ET AL: "Efformation and insuling patients with NIDDM." DIABETES CARE, vol. 14, no. 11, Novembrages 1083-1086, XP0009 * the whole document *	1-7	INV. A61K31/426	
Y	FUJIWARA, TOSHIHIKO ET "Characterization of no agent CS-045. Studies and Zucker fatty rats" DIABETES, vol. 37, no. 11, 1988, XP000981561 * abstract * page 1554, left-hand	1-7		
Y	FUJITA T. ET AL: "Rediresistance in obese and animals by 5-[4-(1-methylcyclohexiazolidine-2,4-dione (U-63,287, Ciglitazone antidiabetic agent." DIABETES, vol. 32, no. 9, 1983, XP000981539 * the whole document *	d/or diabetic  ylmethoxy)benzyl]-th ADD - 3878, ), a new  pages 804-810,/	1-7	TECHNICAL FIELDS SEARCHED (IPC)  A61K
	Place of search	Date of completion of the search	T	Examiner
	Munich	4 August 2006	Sir	ndel, U
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS  icularly relevant if taken alone icularly relevant if combined with another iment of the same category nological background written cisclosure	T : theory or principle E : earlier patent doc after the filing date D : document cited L : document oited fo & : member of the sa	ument, but publi the application rother reasons	shed on, or



## **EUROPEAN SEARCH REPORT**

Application Number EP 05 02 7984

Category	Citation of document with indication of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)			
Y	IKEDA, H. ET AL: "Effe on glucose and lipid me and insulin resistant a ARZNEIMFORSCH., vol. 40, no. 2, 1990, p XP000979418 * abstract * * page 159, right-hand * * page 160, right-hand paragraph *					
Υ	KEMNITZ J W ET AL: "PI INSULIN LEVELS AND BLOO RHESUS MONKEYS" INTERNATIONAL SYMPOSIUM ASSOCIATED WITH DIABETE November 1991 (1991-11) XP000667381 * the whole document *	D PRESSURE IN OBESE HYPERTENSION S MELLITUS,	1-7			
Α	BODKIN N L ET AL: "HEF PRODUCTION AND INSULIN PRECEDING DIABETES IN M AMERICAN JOURNAL OF PHY ENDOCRINOLOGY AND METAB PHYSIOLOGICAL SOCIETY, 1989, pages E676-E681, ISSN: 0193-1849 * abstract * * table 1 * * page E681, paragraph	1-7	TECHNICAL FIELDS SEARCHED (IPC)			
D,A	US 4 572 912 A (YOSHIOK 25 February 1986 (1986- * the whole document *	A ET AL) 02-25) 	1-7			
	The present search report has been d	·				
	Place of search  Munich	Date of completion of the search  4 August 2006	Sin	Examiner  Idel, U		
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS  icularly relevant if taken alone icularly relevant if combined with another ument of the same category unological background -written disclosure	T : theory or principle E : earlier patent doct after the filing date D : document cited in L : document dited for	underlying the i iment, but publi the application other reasons	nvention shed on, or		

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### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 05 02 7984

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

04-08-2006

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4572912	A	25-02-1986	AU AU CA DE DK EP ES F1 IE JP JP KR	570067 B2 3255984 A 1263395 A1 3470742 D1 415184 A 0139421 A1 8607297 A1 843422 A 58036 B1 1604002 C 2031079 B 60051189 A 8900370 B1	03-03-198 07-03-198 28-11-198 01-06-198 01-03-198 02-05-198 01-11-198 01-03-198 16-06-199 22-04-199 11-07-199 22-03-198
			JΡ	60051189 A	22-03-19

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82