

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 August 2002 (22.08.2002)

PCT

(10) International Publication Number
WO 02/065089 A3

- (51) International Patent Classification⁷: C12Q 1/68, A01N 43/04, C07H 21/04, A61K 31/07
- (21) International Application Number: PCT/US01/51047
- (22) International Filing Date:
14 December 2001 (14.12.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/747,514 21 December 2000 (21.12.2000) US
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
3 January 2003
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 02/065089 A3

(54) Title: CATABOLITE REPRESSION CONTROL (CRC) GENE AND PSEUDOMONAS VIRULENCE

(57) Abstract: A method of screening for compounds that inhibit the virulence of Pseudomonas bacteria comprises the steps of: providing a culture medium comprising Pseudomonas bacteria; administering a test compound to said bacteria; and then detecting the presence or absence of inhibition of the catabolite repression control (Crc) protein in said bacteria, the inhibition of the Crc protein indicating said compound has antivirulence activity against Pseudomonas bacteria. Antivirulence compounds and the use thereof in treating Pseudomonas infections are also disclosed.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/51047

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68; A01N 43/04; C07H 21/04; A61K 31/07
 US CL : 435/6; 514/44; 536/ 23.1, 24.5

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)
 U.S. : 435/6; 514/44; 536/ 23.1, 24.5

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 practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/0077272 A1 (MAHAN et al) 20 June 2002 (20.06.2000), see especially page 6, paragraph 54, see entire document.	1-15
Y	WO 98-03533 A1 (OLIGOS ETC. AND OLIGOS THERAPEUTICS, INC.) 29 January 1998 (29.01.1998), see page 16, lines 14-21, see entire document.	1-15
Y	BRIGHT, B.D. et al., ' Involvement of the crc Locus in the Regulation of the Expression of Pseudomonas Aeruginose Virulence Factors.' Pediatric Pulmonology, Cystic Fibrosis Conference, September 1995, Supplement 12, page 244, see entire document.	1-15
Y	BRIGHT, B.D. et al., ' crc Mutants of P. Aeruginose Have Alterations in the Production of Diverse Virulence Factors.' 96th ASM General Meeting, May 1996, Supplement 12, page 220, see entire document.	1-15
Y	O'TOOLE, G.A. et al., ' The Global Carbon Metabolism Regulator of crc is a Component of a Signal Transduction Pathway Required for Biofilm Development by Pseudomonas Aeruginosa.', Journal of Bacteriology. January 2000, Vol. 182, No. 2, pages 425-431, see especially page 428, last paragraph, see entire document.	1-15



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search

28 June 2002 (28.06.2002)

Date of mailing of the international search report

09 AUG 2002

Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/51047

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MACGREGOR, C.H. et al., 'The Nucleotide Sequence of the Psuedomonas Aeruginose pyrE-crc-rph Region and the Purification of the crc Gene Product.', Journal of Bacteriology, October 1996, Vol. 178, No. 19, pages 5627-5635, see especially Figure 9, see entire document.	1-15

INTERNATIONAL SEARCH REPORT

International application No.

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Continuation of B. FIELDS SEARCHED Item 3:

CAplus, Medline, Biosis, USPAT, EPO, JPO, Derwent

search terms: pseudomonas, virulence, crc, catabolite repression control, antisense, ribozyme