SYNTHETIC GENOMES

Bibliographic data | **Description** | Claims | Mosaics | Original document

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Description of **WO 2008024129 (A2)**

SYNTHETIC GENOMES

By J. Craig Venter, Hamilton O. Smith and Clyde A. Hutchison III

CROSS-REFERENCE TO RELATED APPLICATIONS

[001] The present application claims benefit and priority from U.S. Provisional Patent Application Serial No. 60/742,542 filed on Dec. 6, 2005, entitled, "Synthetic Genomes;" the present application is related to U.S. Provisional Patent Application Serial No. 60/752,965 filed on Dec. 23, 2005, entitled, "Introduction of Genomes into Microorganisms;" U.S. Provisional Patent Application Serial No. 60/741,469 filed on Dec. 2, 2005, entitled, "Error Correction Method;" and U.S. Non-Provisional Patent Application Serial No. 11/502,746 filled on Aug. 11, 2006, entitled "In Vitro Recombination Method," all of which are incorporated herein by reference.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[002] This invention was made with U.S. government support (DOE grant number DE-FG02-02ER63453). The government has certain rights in the invention.

BACKGROUND OF THE INVENTION Field of the Invention

[003] The present invention relates generally to molecular biology, and more particularly to synthetic genomes.

US Disclosure Requirement for Federally Funded Research

IL192041 (A)
Bibliographic data
Description
Claims
Mosaics
Original document
Cited documents
Citing documents
INPADOC legal status
INPADOC patent family

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Family list: IL192041 (A) — 2013-08-29

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9 application(s) for: **IL192041 (A)**

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1. Synthetic genomes

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	SYNTHETIC GENOMICS INC [US] J CRAIG VENTER INST [US]	C12N15/10 C12N15/1093 C12N15/66	C07H	IL192041 (A) 2013-08-29	2005-12-06

2. Synthetic genomes

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SMITH HAMILTON O VENTER CRAIG J	CRAIG VENTER INST J	C12N15/10 C12N15/1093 C12N15/66	C07H21/04 C12N5/06 C12P1/04	AU2006347573 (A1) 2008-02-28 AU2006347573 (B2) 2013-01-17	2005-12-06

3. SYNTHETIC GENOMES

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
HUTCHISON CLYDE A III [US] SMITH HAMILTON O [US] (+1)	CRAIG VENTER INST J [US]	C12N15/10 C12N15/1093 C12N15/66	C07H21/00 C07H21/04 C12N1/00 (+4)	CA2643356 (A1) 2008-02-28	2005-12-06

4. Synthetic genomes

INSECTICIDAL ACTIVITY OF A CYCLIC PEPTIDE

[0001] The U.S. Government has a paid-up license in this invention and the right in limited circumstances to require the patent owner to license others on reasonable terms as provided for by the terms of Grant No. 2U01 TW00313-11 awarded by the National Institutes of Health (NIH). This application claims the benefit of U.S. Provisional Application No. 60/572,730, filed on May 20, 2004.

BACKGROUND OF THE INVENTION

[0002] The present invention concerns the insecticidal activity of a cyclic peptide isolated from an extract of the bark of a Madagascan plant. This invention also includes pesticide compositions containing the cyclic peptide and methods of controlling insects using the cyclic peptide.

[0003] There is an acute need for new insecticides. Insects are developing resistance to the insecticides in current use. At least 400 species of arthropods are resistant to one or more insecticides. The development of resistance to some of the older insecticides, such as DDT, the carbamates, and the organoph... developed... Therefore... for compounds that have new or atypical modes of action.

SUMMARY OF THE INVENTION

[0004] This invention concerns a natural compound useful for the control of insects. More specifically, the invention concerns the insecticidal activity of the compound of formula (I)

the crude extract. Profile shown is 21... resulting from injection of ⅕ (8 mg) of... the separation of the whole sampl... repeated five times, pooling 16-17 mi... purified metabolite.

[0008] **FIG. 3** is the electrospray mass spectra of the active metabolite...

[0009] A: ... mentation...

[0010] B: ... mentation)

[0011] C: Negative ion, low cone voltage (low fragmentation)

[0012] D: Negative ion, high cone voltage (high fragmentation)

[0013] **FIG. 4** is the 600.13 MHz ^{1}H NMR spectrum of purified metabolite in MeOH-d_4.

DETAILED DESCRIPTION OF THE INVENTION

[0014] The compound of formula (I) was isolated from an extract of the bark of a Madagascan plant coded MG899 provided under a Madagascar International Cooperative Biodiversity Group Cooperative Research Agreement funded by NIH and administered by Virginia Polytechnic Institute and State University.

[0015] Bioassay-guided fractionation led to the isolation of a cyclic peptide of formula (I). The titer of this compound in the bark was estimated to be approximately 13 ppm

US Disclosure data and licensing in 0001 and 0014 as a way forward for ABS related disclosure

US Licence, grant information

ABS Agreement

Statement on Access and Benefit Sharing.

"Genetic material/Traditional knowledge collected under access contract/international certificate no [country code, unique identifier]. The government of [x] may retain certain rights in this invention."

Oldham & Burton (2010) Defusing Disclosure of Origin in Patent Applications. See also, Oldham et. al. 2013 Biological Diversity in the Patent System. PLOS ONE.

Suggestions & Questions:

1. Separate discussion of technical act of disclosure from its consequences;

2. Patent revocation may be a useful stick but is it wise?

3. Does, “it’s very complicated” mean “we are unwilling to share benefits for conservation” (call a spade a spade)?

4. On plant genetics for agriculture, the Plant Treaty is a logical way forward (Alt = NP and multiple disclosure requirements).

5. Enhanced disclosure is an increasing reality. If companies wish to operate in these markets it will be sensible to comply?

6. What incentives could encourage and recognise good corporate behaviour in the patent system? (don’t penalise the good guys!)