

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 January 2002 (03.01.2002)

PCT

(10) International Publication Number
WO 02/000896 A3

(51) International Patent Classification⁷: C12N 15/63,
15/80, 15/11, 1/14

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(21) International Application Number: PCT/US01/20566

(22) International Filing Date: 28 June 2001 (28.06.2001)

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(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/214,630 28 June 2000 (28.06.2000) US
09/894,630 28 June 2001 (28.06.2001) US

(81) Designated States (national): AE, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ,
DE, DK, DM, DZ, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

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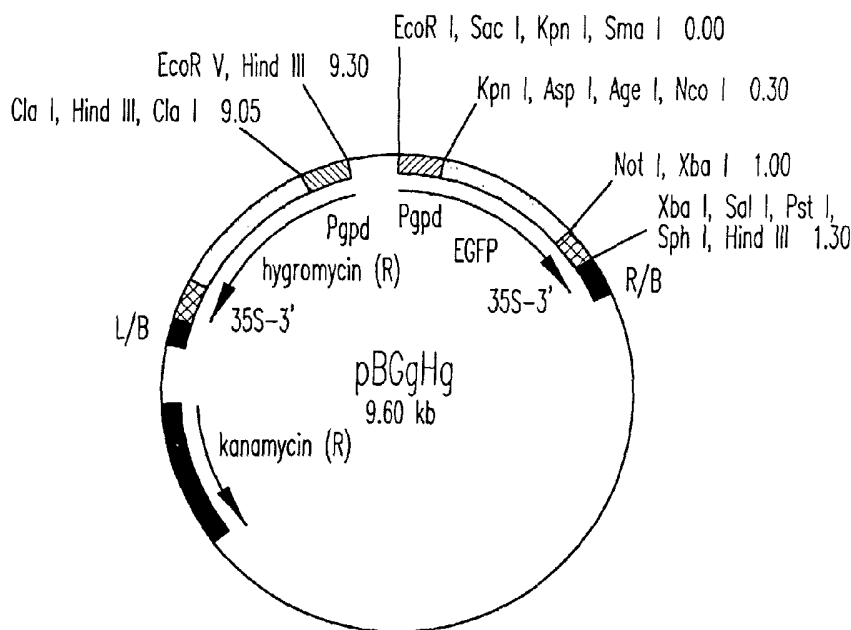
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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[Continued on next page]

(54) Title: METHOD FOR TRANSFORMATION OF *AGARICUS BISPORUS*



(57) Abstract: Applicants have devised a highly effective, convenient, and expeditious genetic transformation system for filamentous fungi, such as *Agaricus bisporus*. The preferred method uses an *Agrobacterium*-mediated transformation protocol. The critical features of this protocol include co-cultivation of the bacterium with fruit body tissue instead of spores. In a preferred embodiment, even higher transformation efficiencies were observed with the use of a homologous promoter in the polynucleotide expression construct in order to drive gene expression.



WO 02/000896 A3



Published:

— *with international search report*

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.

(88) Date of publication of the international search report:

28 August 2003

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/20566

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/63 C12N15/80 C12N15/11 C12N1/14

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 C12N

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)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MIKOSCH T S P ET AL: "Agrobacterium tumefaciens mediated transformation of Agaricus bisporus." MUSHROOM SCIENCE, vol. 15, 2000, pages 173-179, XP001053247 Proceedings of the 15th International Congress on the Science and Cultivation of Edible Fungi; MAASTRICHT, Netherlands; May 15-19, 2000, 2000 A. A. Balkema 3000 BR, Rotterdam, Netherlands ISBN: 90-5809-143-0 page 173, paragraph 2</p> <p style="text-align: center;">--- -/--</p>	26-29

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the international search 31 January 2002	Date of mailing of the international search report 22/02/2002
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Mata Vicente, T.
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/20566

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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X	<p>DE GROOT MARCEL J A ET AL: "Agrobacterium tumefaciens-mediated transformation of filamentous fungi." NATURE BIOTECHNOLOGY, vol. 16, no. 9, 1998, pages 839-842, XP002144853 ISSN: 1087-0156 page 841, right-hand column, paragraph 3</p>	26-29
X	<p>CHALLEN M P ET AL: "Transformation technologies for mushrooms." MUSHROOM SCIENCE, vol. 15, 2000, pages 165-172, XP001053246 Proceedings of the 15th International Congress on the Science and Cultivation of Edible Fungi; MAASTRICHT, Netherlands; May 15-19, 2000, 2000 A. A. Balkema 3000 BR, Rotterdam, Netherlands ISBN: 90-5809-143-0 abstract</p>	26-29
P,X	<p>CHEN XI ET AL: "A fruiting body tissue method for efficient Agrobacterium-mediated transformation of Agaricus bisporus." APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 66, no. 10, October 2000 (2000-10), pages 4510-4513, XP002188897 ISSN: 0099-2240 the whole document</p>	1-30